



## AGENDA

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### NOTICE AND AGENDA

REGULAR MEETING - TUESDAY, OCTOBER 8, 2013  
COUNCIL CHAMBERS AT CITY HALL - 500 CASTRO STREET  
5:00 P.M. – STUDY SESSION

6:30 P.M. (OR IMMEDIATELY FOLLOWING THE STUDY SESSION) – REGULAR SESSION

#### 5:00 P.M. – STUDY SESSION

1. **CALL TO ORDER**
2. **ROLL CALL** – Councilmembers Abe-Koga, Bryant, Kasperzak, McAlister, Siegel, Vice Mayor Clark, and Mayor Inks.
3. **STUDY SESSION**
  - 3.1 **SAN ANTONIO PRECISE PLAN UPDATE**

The City Council will hear a presentation on background information on the San Antonio Precise Plan update and discuss key conditions and objectives to help guide upcoming Precise Plan alternatives development.

#### 6:30 P.M. (OR IMMEDIATELY FOLLOWING THE STUDY SESSION) – REGULAR SESSION

1. **CALL TO ORDER/PLEDGE OF ALLEGIANCE**
2. **ROLL CALL** – Councilmembers Abe-Koga, Bryant, Kasperzak, McAlister, Siegel, Vice Mayor Clark, and Mayor Inks.
3. **PRESENTATION**
  - 3.1 Mountain View Firefighters Going “Passionately Pink for the Cure”

#### 4. CONSENT CALENDAR

These items will be approved by one motion unless any member of the Council or audience wishes to remove an item for discussion. The reading of the full text of ordinances and resolutions will be waived unless a Councilmember requests otherwise.

- 4.1 **APPROVAL OF MINUTES** – Approve minutes for the:
- (1) City Council Special Meeting of September 16, 2013; and
  - (2) City Council Special Meeting of September 17, 2013.
- 4.2 **Resolution No. \_\_\_\_\_ – MOUNTAIN VIEW LOS ALTOS HIGH SCHOOL DISTRICT – SANITARY SEWER SERVICES AGREEMENT** – Adopt A RESOLUTION AUTHORIZING THE CITY MANAGER OR HIS DESIGNEE TO EXECUTE AN AGREEMENT WITH THE MOUNTAIN VIEW LOS ALTOS HIGH SCHOOL DISTRICT TO PROVIDE SANITARY SEWER SERVICES TO LOS ALTOS HIGH SCHOOL, to be read in title only, further reading waived (Attachment 1 to the Council report).
- 4.3 **GREATER OPPORTUNITIES LOAN REPAYMENT OPTIONS** – Authorize Greater Opportunities loan repayment based on an appraised property value of \$600,000 and extend the existing use restriction to 2025 for recordation on title of the property.
- 4.4 **SHORELINE BOULEVARD STORM DRAIN IMPROVEMENTS, PROJECT 10-40 – REJECT ALL BIDS**
1. Reject all bids for Shoreline Boulevard Storm Drain Improvements, Project 10-40, and authorize staff to readvertise the project for bids.
  2. Authorize the City Manager to award the construction contract to the lowest responsible bidder if the low bid is within the project budget when rebid.

#### 5. ORAL COMMUNICATIONS FROM THE PUBLIC ON NONAGENDIZED ITEMS

This portion of the meeting is reserved for persons wishing to address the Council on any matter not on the agenda. Speakers are allowed to speak on any number of topics for one three-minute period during the meeting. State law prohibits the Council from acting on nonagenda items.

**6. PUBLIC HEARINGS**

**6.1 AMEND CHAPTERS 8, 14, AND 24 OF THE CITY CODE AND ADOPT THE 2013 CALIFORNIA AND 2012 INTERNATIONAL CODES, INCORPORATING BY REFERENCE OTHER UNIFORM CODES**

1. Introduce AN ORDINANCE AMENDING CHAPTER 8, ARTICLES I, II, III, IV, AND V, OF THE MOUNTAIN VIEW CITY CODE, RELATING TO THE ADOPTION OF THE 2013 CALIFORNIA BUILDING CODES, INCORPORATING BY REFERENCE OTHER INTERNATIONAL AND UNIFORM CODES, AND ADOPTION OF THE 2012 INTERNATIONAL PROPERTY MAINTENANCE CODE (Attachment 1 to the Council report), to be read in title only, further reading waived, and set second reading for October 22, 2013.
2. Introduce AN ORDINANCE AMENDING CHAPTER 14, ARTICLES I, II, AND III, OF THE MOUNTAIN VIEW CITY CODE, RELATING TO THE ADOPTION OF THE 2012 INTERNATIONAL FIRE CODE, INCORPORATING BY REFERENCE THE AMENDMENTS ADOPTED BY THE STATE OF CALIFORNIA TO ESTABLISH THE 2013 CALIFORNIA FIRE CODE (Attachment 2 to the Council report), to be read in title only, further reading waived, and set second reading for October 22, 2013.
3. Introduce AN ORDINANCE AMENDING ARTICLES I AND II OF CHAPTER 24 OF THE MOUNTAIN VIEW CITY CODE, RELATING TO HAZARDOUS MATERIALS (Attachment 3 to the Council report), to be read in title only, further reading waived, and set second reading for October 22, 2013.

**6.2 PUBLIC HEARING ON ASSESSMENT FOR BUSINESS IMPROVEMENT DISTRICT (BID) NO. 2 AND ALLOCATION OF 2014 BID REVENUES**

1. **Resolution No. \_\_\_\_** – Adopt A RESOLUTION LEVYING THE ANNUAL BENEFIT ASSESSMENTS FOR FISCAL YEAR 2014 FOR DOWNTOWN MOUNTAIN VIEW BUSINESS IMPROVEMENT DISTRICT (BID) NO. 2, to be read in title only, further reading waived (Attachment 1 to the Council report).

2. Authorize the City Manager to execute a contract for services with the Central Business Association (CBA) for 2014 and authorize the allocation of 2014 revenues from BID No. 1 and BID No. 2 to the CBA.

**7. UNFINISHED BUSINESS**

**7.1 PREVAILING WAGE FOR AFFORDABLE HOUSING DEVELOPMENTS**

1. Discuss and provide direction on whether or not to adopt State prevailing wage standards on all future affordable housing development projects funded by the City of Mountain View.
2. Direct staff to work with the Planning Division to amend Section 36.90(c)(4) of the City Code to require the State prevailing wage for projects using Housing Impact Fees.

**8. NEW BUSINESS**

**8.1 PROPOSED MIGRATION TO CALPERS HEALTH PROGRAM FOR SWORN EMPLOYEES**

Accept report on proposed migration to the California Public Employees Retirement System (CalPERS) Health Program for sworn employees and retirees of the City of Mountain View (City) and direct staff to execute side letter and prepare enabling resolutions for Council consideration.

**9. COUNCIL, STAFF/COMMITTEE REPORTS**

No action will be taken on any questions raised by the Council at this time.

**10. CLOSED SESSION REPORT**

## 11. ADJOURNMENT

The next Special Council Meeting will be held on Tuesday, October 15, 2013, at 6:00 p.m. in the Council Chambers, 500 Castro Street.

### NOTICE

There is a 90-day limit for the filing of a challenge in Superior Court to certain City administrative decisions and orders which require a hearing by law, the receipt of evidence and the exercise of discretion. The 90-day limit begins on the date the decision is final (Code of Civil Procedure Section 1094.6). Further, if you challenge an action taken by the City Council in court, you may be limited, by California law, including but not limited to Government Code Section 65009, to raising only those issues you or someone else raised in the public hearing, or in written correspondence delivered to the City Council prior to or at the public hearing. The City Council may be requested to reconsider a decision if the request is made prior to the next City Council meeting, regardless of whether it is a regular or special meeting. For information on the next regular or special City Council meeting, please call (650) 903-6304.

Any writings or documents provided to a majority of the City Council regarding any item on this agenda will be made available for public inspection in the City Clerk's Office, 500 Castro Street, Third Floor, during normal business hours and at the Council Chambers at City Hall, Second Floor, during the meeting. In addition, such writings and documents will be posted on the City's web site at [www.mountainview.gov](http://www.mountainview.gov).

WW/7/CLK  
429-10-08-13A

### COUNCIL MEETINGS AND AGENDA

- The City Council meets regularly on the second and fourth Tuesday of each month at 6:30 p.m. in the Council Chambers at City Hall, 500 Castro Street, Second Floor. Special meetings are called as necessary by the Mayor and noticed at least 24 hours in advance.
- Interested parties may review the agenda, minutes and staff reports at the Mountain View Library, 585 Franklin Street, beginning the Thursday evening before each meeting and at the City Clerk's Office, 500 Castro Street, Third Floor, beginning Friday morning. Agenda materials may also be viewed electronically at [www.mountainview.gov](http://www.mountainview.gov). Staff reports are also available at the Council Chambers during the meeting.
- SPECIAL NOTICE—Reference: Americans with Disabilities Act, 1990. Anyone who is planning to attend the next City Council meeting who is visually or hearing-impaired or has any disability that needs special assistance should call the City Clerk's Office at 903-6304 48 hours in advance of the Council meeting to arrange for assistance. Upon request, in advance, by a person with a disability, City Council meeting agendas and writings distributed during the meeting that are public records will be made available in the appropriate alternative format. Also upon request, in advance, an assistive listening device can be made available for use during the meeting.
- The Council meetings are cablecast live on Channel 26 on the Mountain View Comcast cable system and are replayed on Wednesday at 6:30 p.m. and on Saturday at 11:00 a.m. following that week's Council meeting. If there is a live Environmental Planning Commission meeting on a Wednesday, the replay of the City Council meeting will be on a Thursday at 6:30 p.m. In addition, Council Regular meetings are webcasted, and interested persons may visit the City's web site at [www.mountainview.gov](http://www.mountainview.gov) to watch the meetings live on their computer, laptop or PDA device. Archived broadcasts of previous meetings may also be accessed and watched on-line.
- The Council may take action on any matter noticed herein, and their consideration and action on the matters noticed herein is not limited by the recommendations indicated in the Agenda or staff report(s). The Council may consider and act on items listed on the agenda in any order and thus all those interested in an item listed on the agenda are advised to be present throughout the meeting (see Policy and Procedure A-13). The reading of the full text of ordinances and resolutions will be waived unless a Councilmember requests otherwise.
- By policy, no new items of business will be started after 10:00 p.m., unless an exception is made by vote of the Council.

### ADDRESSING THE COUNCIL

- Interested persons are entitled to speak on any action item listed on the agenda and are requested to fill out the blue cards available at the rear of the Council Chambers and deposit them with the clerk or at the podium as soon as completed. This will assure that your name and city of residence are accurately recorded in the minutes and that your interest in speaking is recognized. If you wish to speak and are not recognized by the Mayor, please approach the podium prior to completion of discussion on the item. Speakers are allowed up to three minutes each, and if a large group wishes to express its views, it is more effective to have one spokesperson.
- Items on the "Consent Calendar" are not discussed individually but are approved as a group with one motion. If a citizen wishes to speak on an item on the Consent Calendar, he or she may come to the podium at the time announced by the Mayor and request that the item be pulled for discussion by the Council.
- Anyone wishing to address the Council on a nonagenda item may do so during the "Oral Communications" part of the agenda. Speakers are allowed to speak one time on any number of topics for up to three minutes.
- Reducing Time For Public Input: For any single agenda item and for Oral Communications from the Public, if there appears to be 15 or more speakers and the Council might not be able to conclude the scheduled agenda items for the meeting if speakers were allotted three (3) minutes each, the Mayor may reduce speaking time to no less than two (2) minutes per speaker unless there is an objection from Council, in which case majority vote shall decide the issue without debate.

**DATE:** October 8, 2013

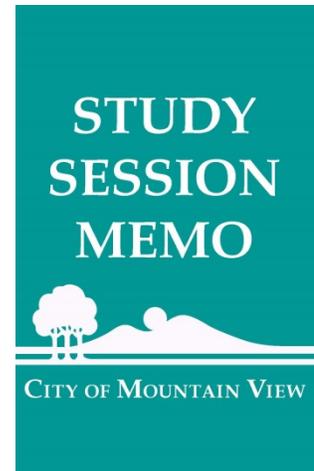
**TO:** Honorable Mayor and City Council

**FROM:** Rebecca Shapiro, Associate Planner  
Martin Alkire, Principal Planner  
Peter Gilli, Planning Manager (Acting)/Zoning Administrator  
Randal Tsuda, Community Development Director

**VIA:** Daniel H. Rich, City Manager

**TITLE:** **San Antonio Precise Plan Update**

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## **PURPOSE**

The purpose of this Study Session is to provide a status report on the San Antonio Precise Plan update and receive Council feedback on key conditions and objectives to help guide upcoming Precise Plan alternatives development.

## **BACKGROUND**

The City Council adopted the 2030 General Plan in July 2012. The San Antonio Precise Plan update will implement the 2030 General Plan's aspirations for the area through strategies, policies, development regulations, and public improvements.

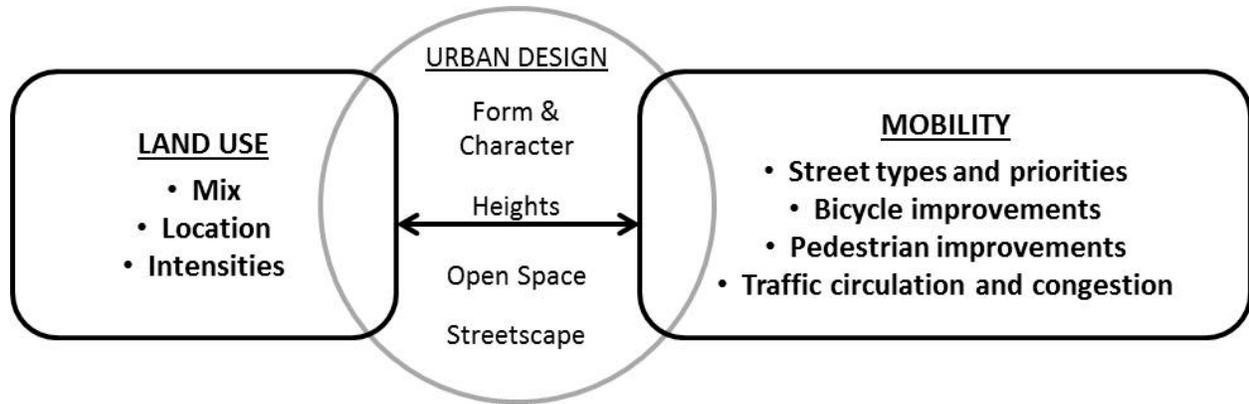
The 2030 General Plan contains area-specific land use, mobility, and other policy direction, as well as form and character guidance, for the look and feel of the San Antonio Change Area. The 2030 General Plan defines future conditions in the area with high-level expectations for a bicycle- and pedestrian-accessible, revitalized mixed-use village.

General Plan implementation began with a San Antonio visioning process from October to December 2012. To date, initial Precise Plan steps have included creating a community engagement strategy and gathering background information on conditions in the San Antonio area.

## **DISCUSSION**

The 2030 General Plan emphasized land use, mobility, and urban design for the San Antonio Change Area. The San Antonio Precise Plan process will seek to balance and

implement direction on these three related topics using San Antonio visioning process input, initial study of existing conditions, and future Precise Plan analysis:



Key objectives for upcoming analysis include:

- Revitalize San Antonio Center as a local/ regional mixed-use destination (LU).
- Retain existing and support opportunities for neighborhood-serving and small businesses (LU).
- Improve bicycle and pedestrian access to and through the area (MOB).
- Manage vehicle traffic and circulation based on the 2030 General Plan policy direction on complete streets (MOB).
- Ensure sensitive neighborhood integration and transitions (LU/URB).
- Develop open space amenities (LU/URB).
- Ensure adequate public infrastructure for projected growth (transportation and utilities) (MOB/LU).

In the next stage of work, the Precise Plan team will develop three Precise Plan alternatives containing different land use, mobility, and urban design options to address these topics. The alternatives will illustrate different approaches and/or priorities for addressing these areas.

### *Alternatives Development and Traffic*

For the San Antonio Change Area, the 2030 General Plan prioritizes creation of a revitalized San Antonio Center and a highly bicycle- and pedestrian-accessible mixed-use village across the entire area.

The alternatives will seek to balance land use, mobility, and urban design objectives from the General Plan. Operational efficiencies will be explored for vehicle traffic, but, in general, vehicle traffic will not be prioritized over other modes of travel or other General Plan objectives. For example, revitalizing the Center as a regional destination will increase traffic in the area with increased vitality in the area. This traffic can be managed by mixing land uses effectively, strategic intersection improvements, mode shift, and travel demand management (TDM) measures, but overall traffic levels are expected to increase. Also, improving travel for other modes, such as improved pedestrian crossings and enhanced bicycle facilities, may reduce vehicle levels of service.

When the alternatives return to Council for review, they will be accompanied by qualitative and quantitative metrics to better understand the tradeoffs related to each alternative. These metrics are expected to include information such as:

- Land use mix influence on travel behavior (e.g., mode shift, TDM effectiveness, etc.).
- Trip generation and utilization of roadway capacity.
- Connectivity improvements and access to essential services and transit.
- Implementation of General Plan policies and guidelines.
- Extent of new or improved infrastructure needed.

### *Environmental Planning Commission (EPC) Study Session*

On September 11, 2013, staff presented high-level summary information to the EPC on the public street network and traffic conditions, interior circulation within the area, bicycle and pedestrian networks, transit services, land use and economic conditions, urban design, and parks and open space (see Attachment 1—EPC Staff Report). General Plan policy direction, input from the visioning process, and areas for further study were summarized for each of these topics.

Nine members of the public spoke. Comments included supporting nearby transit with new land use intensities, comments related to Merlone Geier Phase II, how the Precise Plan needs to plan for high-quality access for all modes of travel, how the Precise Plan impacts and integrates with surrounding areas, and school impacts.

Jeff Baier, Los Altos School District Superintendent, was one of the speakers. Mr. Baier explained the need to plan for a new school in the area to meet current and future enrollment needs, recognized limits on identifying a specific school site in the Precise Plan, and identified some initial ideas to collaboratively address the school need. The EPC acknowledged the City cannot control new school site issues, but requested more information about the number of students coming from new development and ways to collaborate to meet school needs.

The EPC comments reinforce issues and objectives that will be covered in the Precise Plan:

- Traffic and circulation analysis should include traffic patterns within the San Antonio area and extending to Highway 101.
- Support for bicycle and pedestrian improvements.
- Avoid spillover effects to surrounding neighborhoods through Precise Plan standards. Require new development to fully address its own needs for traffic/parking and topics such as parks and open space.
- Study underground parking, reducing building heights, and preserving views.
- The Precise Plan will need to study how to locate higher intensities in the plan area and address other General Plan objectives such as view corridors and transitions.
- Provide the area with more open space and park opportunities.
- Consider light pollution from new uses and/or taller buildings.

The EPC also commented on the challenge of balancing the General Plan's land use, mobility, and urban design objectives in the San Antonio area. Detailed EPC and public comment are provided separately in Attachment 3.

*Bicycle/Pedestrian Advisory Committee (B/PAC) Meeting*

On September 26, 2013, the B/PAC discussed more specific bicycle and pedestrian conditions and opportunities (see Attachment 2—B/PAC Staff Report). Detailed B/PAC and public comment, including several specific improvement recommendations, are identified separately in Attachment 4.

The B/PAC comments reinforce issues and objectives that will be covered in the Precise Plan:

- Design street frontages to be welcoming and comfortable for pedestrians with appropriate uses along the streets, wide sidewalks, ample landscaping, and appropriate setbacks.
- Break up the San Antonio Center block with major north/south and east/west routes for all modes (pedestrian, bicycle, and vehicle), including using the Hetch Hetchy alignment as a key bike/pedestrian connection.
- Provide sidewalks in all roadway locations.
- Separate bicycle, pedestrian, and vehicle traffic whenever possible.
- Provide strong visual cues that communicate pedestrian and bicycle traffic is encouraged (e.g., enhanced facilities, signage, new striping, paving, etc.).
- Coordinate pedestrian and bicycle connections with Palo Alto and Los Altos.
- Provide for the mobility needs of children and the visually impaired.
- Provide strong pedestrian and routes through the area leading to transit stations (Caltrain and VTA) and to nearby schools in Mountain View and Los Altos.

**RECOMMENDATION**

Staff has identified issues and opportunities for the Precise Plan, which are summarized in this report and reflect the existing conditions assessment, public input received to date, and EPC and B/PAC feedback.

Council feedback on these topics, as well as any Council direction on issues and opportunities that have not been identified, will guide the development of Precise Plan alternatives in the next phase of work.

Specific feedback that staff requests includes:

1. Does Council support the approach toward balancing land use, mobility, and urban design objectives to develop Precise Plan alternatives?
2. Is there any additional feedback from Council, particularly related to the identified land use, urban design, and mobility topic areas?
3. Are there specific mobility improvements Council would like to see prioritized in the alternatives?

### **NEXT STEPS**

After input from Council, draft Precise Plan alternatives will be prepared for review at an EPC Study Session by December 2013 and a community workshop in January 2014. These meetings will be followed by a Council Study Session, tentatively by February 2014, to receive Council direction for a preferred alternative.

### **PUBLIC NOTICING**

Agenda posting. Courtesy notices were sent to property owners and occupants within 300' of the Precise Plan area. Electronic notices were sent to interested parties on the E-Notify list for the project.

RS-MA-PG-RT/5/CAM  
803-10-08-13SS-E

- Attachments:
1. [EPC Staff Report Dated September 11, 2013, Including Exhibits](#)
  2. [B/PAC Staff Report Dated September 26, 2013, Excluding Exhibits](#)
  3. Detailed EPC and Public Comment from September 11, 2013
  4. Detailed B/PAC and Public Comment from September 26, 2013

**SAN ANTONIO PRECISE PLAN UPDATE  
ENVIRONMENTAL PLANNING COMMISSION FEEDBACK  
SEPTEMBER 11, 2013**

Land Use

- Allowing higher General Plan intensities and heights in all locations may not be consistent with other General Plan objectives (e.g., sensitive transitions, etc.).
- Impacts of current development proposals, such as traffic, may limit opportunities for future development to use higher General Plan intensities.

Mobility

- Traffic and circulation analysis should include traffic patterns within the San Antonio area and extending to Highway 101.
- Supported bicycle and pedestrian improvements.
- Avoid spillover effects to surrounding neighborhoods through Precise Plan standards. Require new development to fully address its own needs for traffic/parking and topics such as parks and open space.

Urban Design

- Look at underground parking, reducing building heights, and preserving views.
- The Precise Plan will need to study how to locate higher intensities in the plan area and address other General Plan objectives such as view corridors and transitions.
- Light pollution from new uses and/or taller buildings should be addressed.

Community Services

- EPC acknowledged the City cannot control new school site issues, but requested more information about the number of students coming from new development and ways to collaborate to meet school needs.
- Affirmed the need to address park and open space needs in the area.

Nine members of the public spoke. Comments included supporting nearby transit with new land use intensities; concern about traffic in the area, including at San Antonio Road and California Street; comments related to Merlone Geier Phase II; identification of Precise Plan areas of concern, including traffic, light pollution, lack of parking, density, and quality-of-life impacts; how development in advance of the Precise Plan should conform to Precise Plan expectations; how the Precise Plan needs to plan for high-quality access for all modes of travel; how the Precise Plan impacts and integrates with surrounding areas; and concerns over impacts to schools.

Jeff Baier, Los Altos School District Superintendent, was one of the speakers. Mr. Baier explained the need to plan for a new school in the area to meet current and future enrollment needs, recognized limits on identifying a specific school site in the Precise Plan, and identified some initial ideas to collaboratively address the school need.

Additional public comment was sent by email in advance of and following the meeting and is enclosed herein.

To: Environmental Planning Commission  
Cc: Rebecca Shapiro, Martin Alkire, Randy Tsuda, Peter Gilli, Melinda Denis  
From: Julie B. Lovins  
Date: September 13, 2013

Subject: Agenda item 5.2, San Antonio Precise Plan Update (9/11/13)

I appreciated the opportunity to comment on revisions to the San Antonio Precise Plan, via the very useful “backgrounder” staff report. I am now following up with what I hope is an easier-to-digest written version.

### Traffic, Circulation, and Mobility

My comments refer to both inside and around San Antonio Center, because San Antonio Center is the main focus of these issues within the change area.

On page 6, in the *Public Streets Network & Traffic* table, staff notes that “existing retail-commercial land uses” for this area tend to generate traffic. I’d like to add that actual use and TDM measures for all future development and redevelopment must be carefully designed so that no EIR exception based on “overriding considerations” is even contemplated, because it is the city’s goal to have real mobility for all modes of travel. There are no “overriding considerations” that would justify creating gridlock and potentially degrading the value of all commercial and residential development in this part of town.

Thus, in relation to the *Land Use Intensity & Distribution* topic on page 13, we will have to admit that wall-to-wall large buildings supported by the high FAR limit in General Plan 2030 might not allow us to obtain other goals in the same General Plan. These other goals must take precedence, so that the new Precise Plan irons out internal inconsistencies in the General Plan while supplying additional details required for the specific area to be pleasant, efficient, and fully useable (such as, in this case, complete connectivity and shared parking; please see below).

I was surprised by the statement at the top of page 7 that Phase I of Merlone Geier Partners’ un-village-like redevelopment at San Antonio Center “provides improved connections to public streets and a stronger network of bicycle and pedestrian paths”. Everyone I’ve talked to about

this feels that internal connectivity is still sub-par; connectivity between the east and west sides of the Center is certainly no better; and the completely car-oriented entrances/exits for the Center from El Camino and San Antonio have inherent dangers for cars and are impossible for bicycles. Cars need to make high-speed turns from busy streets to enter (or get rear-ended); and it is difficult for drivers to see anyone on sidewalks they need to drive over to exit. City Code for street corners specifies an ample view of all travel in the vicinity of the corner. There should certainly not be impeded views at driveways in the middle of a block.

So yes, we should have much higher expectations. Our expectations should include infrastructure, within and external to redevelopment, that supports and furthers non-automobile mobility. Therefore:

\* In the “further study” section of the table on page 6, we should add that bus stops should be coordinated with logical access points.

\* In the *Internal Circulation* table on page 7, I would add the study of Center-internal shuttle stops, and also the need to separate parking and loading from traffic, including bicycles. There should be no vehicular backing, or opening of doors, into streets.

\* We should add to the *Bicycle & Pedestrian Improvements* table on page 8 that complete mode separation everywhere is needed.

\* We should add to the *Transit* table on page 9 that it might be necessary to constrain cars (and parking) on the northern end of Pacchetti, and perhaps also on the southern end of that street, the part inside the Center.

\* Regarding “garage and service bay openings” (*Urban Design*, page 14): of course they should not be on main streets, and a so-called through street should be completely open to traffic and mode-separated.

\* Under “further study” in the same table, I would suggest eliminating the possibility of tunnels replacing streets. Such tunnels are psychologically offputting and dangerous in many ways. This is not a direction our urban design should be going in.

\* Surface parking should be limited to retail uses. The requirement for arrangements for shared parking, encompassing use by all property-owners in the Center, must be formally re-established following its

elimination in the June 2011 version of the San Antonio Precise Plan, after this requirement had been in place since the birth of San Antonio Center. Similarly, connectivity (for all modes) between all parcels in the Center, regardless of who owns them, must be specified explicitly.

\* It would also be good to study the possibility of allowing paid parking as a TDM measure, for example for office buildings over a certain size. If paid parking is not allowed in the previous Precise Plan, this should be reconsidered in the new one, in light of proposed new uses that were never contemplated in that previous plan.

\* *Parks & Open Space*, p. 15: Open space within the Center seems (to people within it) ever-more-lacking the taller the buildings are, and the closer together.

\* “Plazas” must not be allowed also to be categorized as roadways. One or the other. I do understand that emergency vehicles must be allowed to enter a plaza under unusual circumstances.

### Land Use & Economic Conditions

\* We should start with the observation (background information) that there has been a recent trend toward systematic elimination of neighborhood-serving uses from the San Antonio Center redevelopment area. We need a core of locally-based businesses to support the local economy and provide local services that people can walk to. This is not done by big boxes and chain stores (whose purchases and profits generally go out-of-state rather than being recirculated locally). Many uses recently built or proposed do not provide sales tax income to the City, either.

\* Council was very vague on financial expectations for “revenue-generating” redevelopment, in its discussion of the Phase II proposal; the several dollars per square foot currently projected by Merlone Geier Partners might well be off by a factor of ten from reasonable expectations, and no one seems concerned about this. We need actual figures from other comparable development in the middle of a city, as well as from the eastern side of San Antonio Center. This information might not be appropriate for a Precise Plan, but I think it should be done in other studies, perhaps in an EIR. It seems like a necessary prerequisite to any approval of redevelopment plans.

\* Regarding the table on page 11: The “access to goods, services and healthy food choices” goal in the General Plan is not forwarded if the only affordable fresh food source in a dense, largely lower-income neighborhood becomes unable to continue.

\* A “further study” item for that table would be to incentivize affordable rents for critical locally-based businesses.

\* It is not logical for the City’s policy to be “not favoring one business over another” while clearly favoring a well-financed developer (who nevertheless might or might not be making a significant contribution to the General Fund) over well-established, popular, thriving, and much-needed locally-based small businesses.

Finally, I hope that both the EPC and the Council will support Council ratification of a condition that developments being reviewed in advance of the completion of this new San Antonio Precise Plan be required to conform in spirit and in as much detail as possible to standards under development for the Plan, as per previous CDD staff assurance that this would happen. Council must do this because they did not agree to ratify a new San Antonio Precise Plan before approval of any further redevelopment. We should not continue to have projects extensively reviewed and maybe even approved and built that are clearly contrary to the specifications and goals of the General Plan and subsequent planning documents.



*neighbors working together to  
create quality community*

Precise Plan Presentation to the Mountain View Environmental Planning  
Commission  
September 11<sup>th</sup>, 2013

Members of the Greater San Antonio Community Association live across the street from - or adjacent to - the San Antonio Shopping Center. We will be among those most directly affected by developments in the Greater San Antonio Change Area.

Many of our community members hope that development in the area will bring in new amenities – attractive spaces for shopping, dining, and evening activities - and that these will add to the attractiveness of San Antonio Center as a regional shopping designation. But a greater overall concern is about the impact of a very high-density office park in an area that is seeing rapid growth in housing space, the upcoming impact of a large Google facility in the area, and the traffic problems and safety issues that will result from the accumulated growth of all these together.

### **Traffic Congestion**

We have carried out an extensive study of the traffic at the intersection of San Antonio and California. What we have found – based on current traffic conditions, growth already OKed, and the addition of a large office park and parking garage – is that the intersection will be driven into gridlock at peak traffic hours in the morning, probably at noon, and in the evening.

Our understanding is that this will change the grades of the intersections – and not only at San Antonio and California but all up and down San Antonio and in the area. We suspect that it will drive the intersection – already one of the worst in Mountain View – to grade F.

We ask that the Precise Plan address the all-important issue of traffic growth and density – both immediately next to the Area San Antonio Change Area, but in adjacent areas as well – including El Camino, Showers, and California Street.

The impact of the traffic congestion is that it will reduce the accessibility of the regional public to the services provided by stores at the San Antonio Center – which is what provides benefits to the city, to the residents, and to local landowners. We ask that the Precise Plan address the issue of access to local stores.

We also ask that the Precise Plan address the issue of pedestrian and bicycle access to the San Antonio Change Area.

### **Traffic Overflow**

October 3, 2013

Page 1 of 2



*neighbors working together to  
create quality community*

An important aspect of increase in traffic density – and gridlock – is that it causes drivers to find alternative paths to drive down, often going through residential districts as shortcuts. One of those short cuts will directly go through residential areas of the Greater San Antonio Community Association, endangering children, bicyclists, and pedestrians, including pedestrians from the San Antonio Caltrain Station.

The impact on local traffic will not be only on traffic next to the Greater San Antonio Change Area, but in other areas as well, including nearby Del Media Ave and California Ave. We ask that local traffic problems that will be created by very high density development in the San Antonio Change Area be addressed in the Precise Plan, including the whole of the vicinity of the San Antonio Shopping Center.

### **Safety Impact**

One of the major issues due to increased traffic density will be the safety of pedestrians, bicyclists, and especially our children and elderly people. Pushing traffic into neighborhoods designed for living will create safety hazards. We request that the Precise Plan address these issues in detail.

Our children ride their bicycles to school in Los Altos during the morning rush hour. We ask that the issue of their safety be addressed in the Precise Plan.

There are many other issues that our members are concerned with which I don't address here. A most important one is the quality of life of being a resident in Mountain View. Is there a quality of life metric in Precise Plan? Please find a way to address this issue as well.

Respectfully,

Stephen Friberg  
129 Concord Circle, Mountain View  
President, Greater San Antonio Community Association



*neighbors working together to  
create quality community*

Presentation to the Mountain View Environmental Planning Commission  
September 11<sup>th</sup>, 2013

The greater San Antonio Change Area community has many concerns about the scale and rate of development in the Change Area, including the Merlone Geier Phase II development.

### **Traffic**

Others have presented details of our concerns about traffic. I would like to reiterate the importance of the EIR covering traffic impacts throughout the entire Change Area. We in the Crossings and Old Mill are especially concerned about traffic at the intersection of California Street and Pacchetti Way or Showers Drive. The Del Medio neighborhood has concerns about traffic loads on Del Medio Avenue, which have already increased significantly.

We would like to know that the City has good plans right now for any additional loads on the streets, instead of building and then sorting it all out. We would like the EIR to address this.

### **Light pollution**

The issue of light pollution at night was brought up early on, but we want to ask that there will not be significant levels of light at night impacting our neighborhoods, especially Crossings residences close to California Street. We would like the EIR to address this concern.

### **Lack of park space**

We note that there is lack of adequate park space in the Phase II development. The Crossings and the Old Mill residents are concerned about San Antonio Center office building and retail employees coming over to enjoy and outdoor lunch or break in the Crossings or Old Mill parks. These parks are for residents only, so unauthorized use will lead to conflict or possible degradation of quality of life for the residents. We would like the EIR to address this issue.

### **Lack of sufficient parking**

We note that there is lack of adequate parking in the Phase II development (adequate includes ease of access in and out). We suspect that visitors and employees of the Center will either park in the parking areas around non-Merlone Geier development or will come over to The Crossings, the Old Mill, or to the Del Medio neighborhood looking for parking.

This unauthorized use in the Crossings will lead to conflict or a simple degradation of Crossings quality of life, and the additional load on Del Medio or Ortega area streets will cause problems



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for those residents. Refer to the problems of residents close to downtown Palo Alto for example. We would like the EIR to address this issue.

### **Insufficient planning for large influx of bicycles**

Google is coming to the old HP site at 100 Mayfield. The Google employees are used to biking to various amenities, and they don't use helmets. Has the City factored in this sharp increase in bicycle use in the near future? We would like the EIR to address this.

### **Merlone Geier Phase II development density**

In early April, both the EPC and the Council commented to the Merlone Geier Phase II proposal of that time that the density was too great. The current proposal hasn't changed much from April and in fact from the initial concept proposal of Fall 2009. The greatest concerns of Greater San Antonio stem from the effects of development that is too dense, that is from rapid intense mixed-use infill. We would like the EIR to address this.

### **Quality of life for residents**

Finally, we would like to voice our concern that quality of life of current residents is being impacted in the rush to create hugely more residential units and office space in the San Antonio Change Area. We see the early signs of the impact already in increased traffic on San Antonio Road. What is done in this change area sets a precedent that might be applied to older, established neighborhoods in Mountain View, if the economic or political pressures become too great. We would like to draw your attention to an editorial in the Mountain View Voice, dated August 30, 2013, with the title "Is anyone worried about development impact?" and the subtitle "WITH 68 PROJECTS IN THE PIPELINE, CITY WILL SOON BE MIRED IN GRIDLOCK".

We would like the EIR to address these issues of quality of life for our current Mountain View residents.

Respectfully,

Paul Edwards  
Pacchetti Way, Mountain View  
Vice-President, Greater San Antonio Community Association

RECEIVED

SEP 10 2013

Community Development

Simas, Linda

**From:** Alkire, Martin  
**Sent:** Tuesday, September 10, 2013 2:41 PM  
**To:** Simas, Linda  
**Subject:** FW: 9/11/2013 Meeting - comments on agenda item 5.2. (San Antonio Precise Plan Update).

fyi

**From:** Serge Bonte [REDACTED]  
**Sent:** Monday, September 09, 2013 11:57 AM  
**To:** Alkire, Martin; [mountainviewellen@gmail.com](mailto:mountainviewellen@gmail.com); [lisa.matichak@gmail.com](mailto:lisa.matichak@gmail.com); [caprilesmountainview@gmail.com](mailto:caprilesmountainview@gmail.com); [trf@mac.com](mailto:trf@mac.com); [grossmanrachel01@gmail.com](mailto:grossmanrachel01@gmail.com); [mkrtrontell.mtvw.gov@gmail.com](mailto:mkrtrontell.mtvw.gov@gmail.com); [robert.cox@intel.com](mailto:robert.cox@intel.com)  
**Subject:** 9/11/2013 Meeting - comments on agenda item 5.2. (San Antonio Precise Plan Update).

Dear Mountain View EPC Members:

As I will not be able to attend your 9/11/2013 meeting, I wanted to share a few comments on item 5.2. (San Antonio Precise Plan Update).

1. I think that public schools (or lack thereof) are missing from both the current existing conditions and the identified areas in need of further study. As some of you might know, there are no Mountain View public schools located in or near the San Antonio Change Area. K-8 kids in this area are zoned for the Los Altos School District and attend schools in Los Altos; high schoolers attend Los Altos High School ...in Los Altos; every single public school K-12 kid has to cross El Camino! While I understand that schools are not under City jurisdiction, there are a lot of benefits in having schools closer to where their students live (greater sense of community, more parks, less car traffic....) and/or easier and safer to walk or bike to (less car traffic, healthier kids, .....). Both goals should be part of the list of areas needing further study.

2. I am unclear as to who monitors or enforces compliance with the General and the Precise Plan. In April 2013, the Mountain View City Council approved a Gatekeeper request (in advance of the Precise Plan) for a redevelopment at 555 Showers Drive (a bigger, taller and closer to the street Target store). The applicant stated that the project was consistent with the General Plan. Within the San Antonio Change Area, the General Plan calls for the Hetch Hetchy right-of-way to be used "as open space and a pedestrian and bicyclist connection". However, in the Gatekeeper application, the proposed use for that right-of-way is an active automotive parking lot/driveway. That doesn't meet any reasonable definition of open space; it also connects cars .... not pedestrian or bicyclists. What is the process to insure projects adhere to both the General and the Precise Plans?

Sincerely,

Serge Bonte

[REDACTED]  
 Mountain View, CA

**Simas, Linda**

---

**From:** Shapiro, Rebecca  
**Sent:** Tuesday, September 10, 2013 5:32 PM  
**To:** Simas, Linda  
**Subject:** FW: Comments regarding San Antonio Precise Plan- agenda item 5.2 on 9/11/13

FYI. For Item 5.2 at EPC

**From:** Nancy Morimoto [REDACTED]  
**Sent:** Tuesday, September 10, 2013 4:27 PM  
**To:** [mountainviewellen@gmail.com](mailto:mountainviewellen@gmail.com); [lisa.matichak@gmail.com](mailto:lisa.matichak@gmail.com); [caprilesmountainview@gmail.com](mailto:caprilesmountainview@gmail.com); [trf@mac.com](mailto:trf@mac.com); [grossmanrachel01@gmail.com](mailto:grossmanrachel01@gmail.com); [mktrontell.mtvw.gov@gmail.com](mailto:mktrontell.mtvw.gov@gmail.com); [robert.cox@intel.com](mailto:robert.cox@intel.com)  
**Cc:** Alkire, Martin  
**Subject:** Comments regarding San Antonio Precise Plan- agenda item 5.2 on 9/11/13



*neighbors working together to  
create quality community*

Dear Mountain View EPC Members,

I am a board member of the Greater San Antonio Community Association. I am unable to attend the public meeting on Wed. 9/11, but would like to make several comments regarding the San Antonio Precise Plan (agenda item 5.2) on behalf of our members.

There are many hurdles to overcome with the implementation of the "parallel tracks system" of creating the area precise plan while moving forward with many large gate-keeper projects. This affects many areas of creating the precise plan.

#### Vehicle Mobility

On behalf of the Greater San Antonio Community Association, I recently advocated for making the scope of the EIR for Merlone Geir's Phase II development as broad as possible, and asked that it include the best estimations of traffic increases from the other planned or anticipated developments. If Phase II ends up increasing traffic by a very large amount, that will negatively affect what other high density projects will be able to be implemented in the entire change area. We suggest the EPC prioritize studying the approximate traffic increase load the entire area can accommodate and allocate a percentage of car trip increases that can come from quadrants within the change area.

#### Pedestrian and Bike Mobility

Also, the GSACA envisions a unified street scape with, as much as possible, the same sidewalk widths, plantings, benches, bike racks, crosswalk styles etc. and likely including bike lanes with green paint and protective curbs, on the major public roads throughout the change area. This will help create a cohesive, aesthetically pleasing sense of place and make the whole area pleasant and consistently easy to move around on

by foot or bike. We suggest prioritizing that topic, even though it may more usually be dealt with later in creating a precise plan. This needs to be done in time for Merlone Geier to be able to incorporate them into their Phase II plans.

#### Land Use- Open Space

Lack of adequate park space has been reported, and we heartily agree. The city's current practice of making plans for purchasing land and creating public parks will be a difficult way to get a reasonable amount of new open space in this area. The GSACA requests that you study the idea of open space being the primary public benefit expected for the increase in density desired for the area. In other words, individual developers would be required to provide more than a "typical" amount of open space for a project of a particular size. For example, apartment complexes here would need to provide much more than pools and courtyards. It could be private, or preferably public, open space on the property, or large parcels like the Hetch Hetchy right of way or a park area adjacent to a potential school site, could be purchased for public use, to fulfill developers' enhanced open space requirements. By pooling these contributions to open space, it would constitute a very much desired public benefit. Also, as an active parent in the Los Altos School District, my personal comment is that movement is being made, slowly but surely, to educate the public to the need of passing a bond to provide two new schools in the district, one for Bullis Charter School, and one to accommodate the schools/population imbalance in the north of the district, which includes the change area. This needs to be acknowledged as part of the current conditions.

#### Land Use- Local Businesses

It is a priority of the GSACA to support local small businesses. We are happy to see the commitment to studying ways to achieve a mix of small, neighborhood serving businesses along with larger uses.

Thank you.

Sincerely,

Nancy Morimoto

White Road

Mountain View

**Simas, Linda**

**From:** Shapiro, Rebecca  
**Sent:** Wednesday, September 11, 2013 2:42 PM  
**To:** Simas, Linda  
**Subject:** FW: Public comment for the San Antonio Precise Plan  
**Attachments:** r\_211jkr.pdf

RECEIVED  
 SEP 11 2013  
 Community Development

FYI. For Item 5.2 at EPC.

**From:** Charles Bransi [mailto:cbbransi@hotmail.com]  
**Sent:** Wednesday, September 11, 2013 2:38 PM  
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**Subject:** Public comment for the San Antonio Precise Plan

Dear Mountain View EPC members:

Since I will not be able to attend your September 11 meeting, I wanted to write to you today regarding the location of the proposed parking structure of the San Antonio Center. I strongly believe that in order for the San Antonio Center to be sustainable in the long-term it needs to be more pedestrian/bike friendly. I would like to make the following points regarding my motivation for this correspondence:

1. I would like to see that the area is made safer by segregating vehicle traffic from pedestrian/bike traffic through the implementation of a well planned circulation network policy that considers all user groups.
2. I would like to encourage the use of the public transit system.
3. I would like to see the adjacent neighborhood less affected by the development.

The San Antonio Center is the materialization of the vision for smart growth around public transit. Growth is a by-product of success, and Silicon valley and Mountain View are reaping benefits from the success of the tech industry. Unfortunately growth also presents certain issues in the form of 'growing pains' and 'teething problems'. However, I do believe it is possible to alleviate some of these headaches with careful design and planning. Currently, my biggest concern is the proposed 7-story parking garage on the corner of Pachetti Way and California Street.

A 7-story parking facility would naturally attract vehicle traffic, and my concern is the impact this will have on pedestrians and cyclists, as well as the adjacent residential neighborhood. I feel that a huge parking facility of this nature is going against the vision of the city of Mountain View – a vision of a more dense neighborhood that has a strong focus on the safety of pedestrians and cyclists.

The city of Mountain View currently has a circulation network map that promotes vehicle traffic on San Antonio and bicycles on California Street. The importance of this circulation plan is becoming more and more crucial as the density within the neighborhood increases. Currently, we expect the CalTrain to offer commuters an alternative mode of transport to cars. As the train station is situated very close to the proposed development, train commuters and cyclists will walk or cycle along Pachetti Way to reach their offices situated within the San Antonio Center. Also, another office complex – the San Antonio Station (a 500

000 square feet office) – will bring even more people who would use the tunnel under the railway tracks to walk/cycle along Pacchetti Way. In addition, the Monta Loma residents will also walk/cycle along Pacchetti Way in order to reach the center.

Once these pedestrians and cyclists reach the intersection of Pacchetti Way and California Street, they would have to jostle moving traffic in order to access the complex, which poses a severe safety risk for these users. I also believe we would miss a huge opportunity to encourage more commuters to use the public transit system, as by placing a garage (and the inevitable heavy vehicle traffic that this will bring) between the train station and the office space, we will effectively discourage people from using the public transit system due to safety concerns.

The solution I propose would be to move the parking structure from the [REDACTED] station, and move the office complex (387 000 square feet) to the corner of Pacchetti Way and California Street.

I have attached a document called "making the most of Transit" from the Public Policy Institute of California, which was published in February 2011 (1). The first important conclusion that can be drawn from this study is that the relationship between the proximity of the office to public transport is typically reflected as an exponential curve. As the distance (and time) to commute increase, the ridership falls fast. The second conclusion is that siting of workplace/employment close to public transit is the best way to encourage public transit ridership. People who make non-commute trips to visit stores or attend events are much less likely to use public transit. An office on the corner of Pacchetti Way and California Street would make the walking commute around 5 to 10 minutes. This location is recommended, both in terms of safety and commute time, if we are wanting to encourage commuters to use public transit. Putting the parking garage between the transit and the office space would make it longer to commute for transit users, compromise safety of pedestrians/cyclists by mixing vehicle traffic with pedestrians/cyclists, and more importantly, it would encourage people to drive their vehicles rather than use public transit, walk or cycle.

Lastly, the office space is the best choice to integrate near the residential area, and will serve as an effective buffer between the residential and commercial areas. They complement each other because the residential area is more populated after work hours during the evening and weekend, while the office space will have its peak during work hours on weekdays. This will have much less of a negative impact on residents in terms of both traffic, noise and safety than a high-rise parking facility that by its very nature is designed to attract high volumes of vehicular traffic.

In conclusion, I believe this is an opportunity for the city of Mountain View to promote its vision of striving to be a more pedestrian/bike friendly city rather than only considering this as an afterthought. In the grander scheme of things, we should be encouraging people to walk, cycle and use public transport rather than private vehicles, in order to minimize our carbon footprint, reduce atmospheric pollution and greenhouse gas emissions, and ultimately in our effort to promote a more sustainably lifestyle and society. Not long ago, the Crossing neighborhood was visited by other cities as a great example of a transit-oriented development (ToD). It would be ironic to add a 7-story garage at the entrance of a transit-oriented development – a stark reminder to everyone that the car is still king.

Yours sincerely

Charles Bransi

## Reference

[http://www.ppic.org/content/pubs/report/r\\_211jkr.pdf](http://www.ppic.org/content/pubs/report/r_211jkr.pdf)

“Data from California illustrate how strongly proximity to transit determines ridership, even more for workplace proximity than for residential proximity. Within one-half mile of a transit station, 6.7 percent of residents and 7.2 percent of workers commute by subway, streetcar, or railroad (Table 4). In contrast, beyond one-half mile of a transit station (but still in counties with stations), only 1.1 percent of residents and 0.5 percent of workers commute by subway, streetcar, or railroad. Ridership, therefore, falls quickly at greater distances from transit. Yet even among Californians who live or work within half a mile of a transit station, the majority drive alone to work, so proximity to transit hardly guarantees high ridership.”

Attachment

Attachment

Attachment



**PPIC**

PUBLIC POLICY  
INSTITUTE OF CALIFORNIA

# Making the Most of Transit

## Density, Employment Growth, and Ridership around New Stations

February 2011

Jed Kolko

with research support from Marisol Cuellar Mejia, Davin Reed, and Eric Schiff

Supported with funding from The William and Flora Hewlett Foundation and the David A. Coulter Family Foundation

## Summary

In 2008 California adopted Senate Bill (SB) 375, which requires the integration of land use and transportation planning to reduce greenhouse gas emissions from vehicle miles traveled (VMT). A prime example of such activities is transit-oriented development (TOD), the targeting of residential, commercial, or mixed-used development to areas around transit stations.

This paper assesses how well California has achieved the integration of land use and transportation planning by looking at employment growth around new transit stations from 1996 to 2006. Three facts, presented in the paper, underscore the importance of locating transit near jobs and encouraging job growth near transit:

- Transit ridership depends on proximity to transit, especially workplace proximity.
- Employment density is more strongly associated with transit ridership than residential density is.
- In California, residential density is higher than the national average and rising, but employment density is lower than the national average and falling.

Because employment patterns are at least as important for transit ridership as residential patterns are, and because employment patterns and commercial land use have received much less emphasis in policy work and the research literature, the analysis in this paper focuses on employment growth.

Looking across the 200-plus transit stations that opened in California from 1992 to 2006, we find that these new stations were located in areas with high residential density and very high employment density. Yet the opening of new stations was not accompanied by an increase in average employment growth in the areas immediately surrounding these stations (relative to comparison areas), either when the stations opened or several years afterward. What's more, employment around new stations varied widely: Employment growth increased near 18 new stations and decreased near 20, relative to comparison areas, with the largest increases in areas that had higher residential and employment density prior to the station opening. For the rest of the stations, the difference between employment growth around the station and in the comparison areas before and after the station opening was not statistically significant. Employment growth increased most around stations located in higher-density areas.

In short, we find an absence of any boost to employment growth associated with the opening of new transit stations, on average. This finding runs counter to a goal of transit-oriented development policy and suggests that California has missed an opportunity to get the maximum increase in transit ridership and reduction in VMT from its recent transit investments. Existing zoning patterns and fiscal incentives, though favoring commercial over residential development, have not resulted in employment growth around new transit stations. Furthermore, most TOD policies—including the TOD strategy in SB 375—discourage commercial development relative to residential development near transit. But if California is to make the most of its transit investments, land use and transportation planning must do more to boost employment growth around transit stations.

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A technical appendix to this paper is available on the PPIC website:  
[http://www.ppic.org/content/pubs/other/211JKR\\_appendix.pdf](http://www.ppic.org/content/pubs/other/211JKR_appendix.pdf)

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## Introduction

California has, for years, sought to tie its transportation planning to land use policy in order to balance economic growth, mobility, air quality, habitat preservation, and other goals (Barbour and Teitz 2006). In 2008, California adopted Senate Bill (SB) 375, which furthers the integration of land use and transportation planning in order to reduce greenhouse gas (GHG) emissions. As SB 375 requires, the California Air Resources Board established targets in 2010 for each of the state's 18 metropolitan planning organizations (MPOs), which, in collaboration with cities and counties, are required to integrate land use planning into the regional transportation planning process.

The emission-reduction targets will partly be met through a variety of policies designed to reduce vehicle miles travelled (VMT), including land use, pricing, and investments in transit and other alternatives to driving alone. Other policies, such as fuel standards, are also being used to reduce GHG emissions from the transportation sector, and California is trying to reduce emissions from other sectors as well (Bedsworth, Hanak, and Kolko 2011). Transportation models and previous research support this approach, demonstrating that integrated strategies that include, for instance, transit investments coordinated with zoning changes and parking policies, result in greater VMT reduction than policies undertaken singly.

A prime example of integrating land use and transportation planning for the purpose of VMT reduction is transit-oriented development (TOD), which aims to create compact, dense, urban spaces around transit stations through residential, commercial, or mixed-used development, supported by appropriate urban design and policies. Because transit-oriented development has the potential to shift residents and workers closer to transit, TOD has the potential to reduce VMT by raising transit ridership. New transit investments can raise the share of residents and workers close to transit in two ways: (1) by locating transit in high-density areas, and (2) by encouraging greater density around new transit stations.

Locating transit in high-density areas depends, of course, on the existence of high-density areas in the first place. Only the larger metropolitan areas with high-density neighborhoods can support fixed-line transit such as subways, rail, or streetcars, because density provides the ridership needed to make such systems economically feasible. The existence of high-density areas that are good candidates for transit stations is the result of cumulative public policy and private sector decisions and topographic constraints. This paper will demonstrate that transit ridership at the metropolitan level is indeed higher where the average density of the metropolitan area is higher, and that employment density is more strongly associated with transit ridership than residential density is. Looking at California's recent history, this paper also shows that new transit stations have been located in areas of relatively high density, though not as high as the areas around older transit stations.

Increasing density around new transit stations depends on both public- and private-sector decisions that encourage or discourage development, including zoning, urban design, and investment decisions. Even if the land around a new transit station becomes more valuable because of its increased accessibility, higher values result in new development and higher density only if local policies facilitate, or at least allow, development. Patterns of development around new transit nodes affect the extent to which transit investments lead to greater transit ridership and therefore the reduction of VMT and the achievement of SB 375 goals.

In recent years, California has invested considerably in fixed-line transit, with over 200 new transit stations opening in the state between 1992 and 2006, in both existing and new systems. Much more transit investment is planned for the future. The contribution of these investments to VMT reduction will depend, in part, on

how well these investments are integrated with land use planning and with existing transportation infrastructure.

This paper assesses how well this integration has been achieved in California in the period from 1992 to 2006, answering the following two questions in depth:

1. To what extent were new transit nodes in California located in areas with high residential or employment density?
2. How much have residential and, especially, employment densities increased around new transit nodes?

We focus on fixed-line transit, such as subways and light rail, because it represents a large share of transit investment. Fixed-line transit is also perceived to have the greatest potential for integration with land use planning (Bedsworth, Hanak, and Stryjewski 2011). Our focus is metropolitan and commuter transit—not inter-regional transit like high-speed rail—consistent with SB 375's emphasis on integrated planning at the regional level.

This paper proceeds as follows. First, we provide a brief overview of land use patterns and transit trends, highlighting the most relevant findings for our analysis of integrating land development with transit investments. Two important facts stand out in each area:

**Land use trends.** Employment density in California is lower than the national average and falling, even though residential density is higher in California than the national average and rising.

**Transit trends.** Transit ridership falls sharply as distances from transit stations increase. This trend is even more pronounced for distances from workplaces than for distances from residences.

Next, the paper reviews research on land use and transportation, which concludes that employment land use patterns have at least as strong a relationship with transportation behaviors as residential land use patterns do.

Together, these sections provide the context for the paper's two main research questions: Where did new transit stations open, and did residential and employment growth accompany those new stations? Our findings to these questions, along with results reported from previous studies, point to challenges and opportunities for reducing VMT in California.

## In Brief: Land Use Trends

This section describes land use patterns and recent trends in the U.S. and California. Land use patterns are the cumulative result of decisions made over many years by governments, businesses, and households. Because buildings and infrastructure can last for decades or centuries, land use patterns change slowly except in rapidly growing areas with new development. Existing land use patterns can support or constrain transportation policy options.

### Describing land use: Density and centralization

Density and centralization are two important measures of land use patterns. Put very simply, density reflects how tightly packed together people (or housing or jobs) are within a given land area, and centralization reflects the clustering of people (or housing or jobs) near the center of a city or metropolitan area. Decentralized land use tends to have lower density: the density of both population and employment typically declines with increasing distance from downtown. "Sprawl" often refers to land use that is both low-density and decentralized (Glaeser and Kahn 2004). But decentralization does not always imply low-density: a metropolitan area could be both decentralized and high-density if, for instance, it includes large, dense centers of employment outside of traditional downtowns. Although density is just one of many measures of land use patterns, the research literature suggests it is highly relevant for transit ridership and often closely related to other measures of land use patterns.

Density and centralization have the advantage of being relatively easy to quantify using widely available data, which facilitates comparisons across geographic areas at many levels (Census tracts, counties, metropolitan areas) and over time. Other measures of land use patterns include whether land is developed in a continuous or "broken" fashion; whether there are few or many sub-centers of employment outside of downtown; and whether different land uses, like residential and commercial, tend to be mixed or separated.\*

The discussion of land use and transportation in this paper mentions the "jobs-housing balance." This is one important measure of the mixing or separation of different land uses.

\* Galster et al. (2001) defines a variety of land use measures and demonstrates that many are uncorrelated with each other. Lang and LeFurgy (2003) and Redfearn (2007) examine employment concentrations outside of traditional downtowns.

### Trends in Decentralization

For many decades, American cities have become less dense and more decentralized. Nationwide, urban population densities peaked in 1950, fell sharply between 1950 and 1990, and remained relatively constant between 1990 and 2000. Population has steadily decentralized since 1890 as suburbs have grown and the differences in density between higher-density cities and lower-density suburbs have narrowed (Kim 2007). Although employment is more concentrated near downtowns than are housing and population, only 21 percent of employment in large metropolitan areas is within three miles of downtown.<sup>1</sup>

<sup>1</sup> I use "downtown," "city center," and "Central Business District" interchangeably throughout this report.

Despite these general trends in density and decentralization, metropolitan areas vary widely. In California, employment is more concentrated near the central business district (CBD) in San Francisco-Oakland (21 percent of metro employment within three miles) and Sacramento (22 percent) than in Los Angeles (7 percent) or San Diego (12 percent).<sup>2</sup> And although nearly all metro areas experienced further decentralization of employment between 1992 and 2006, this movement of jobs away from downtowns was more pronounced in some metros, such as Los Angeles and San Francisco-Oakland, than others, such as San Jose and Sacramento.

Explanations for increasing decentralization and declining densities fall into two categories: “natural evolution theory” and “fiscal-social problems” (Mieszkowski and Mills 1993; Nechyba and Walsh 2004). Under “natural evolution theory,” households consider both the cost of commuting to downtown jobs, which rises with increasing distance from the city center, and the cost of housing, which falls with increasing distance from the city center. Decentralization can result from either improved transportation technology that lowers the cost of commuting (e.g. cars replacing horse-drawn carriages, or the building of better roads) or greater demand for housing. The “fiscal-social” explanation is that lower-density suburbs grow as people move out of cities with bad public schools, high crime, and worse public services.<sup>3</sup> Although, as Mieszkowski and Mills (1993) point out, these two broad explanations are related and hard to disentangle, the evidence leans more in favor of the “natural evolution” explanation. Glaeser and Kahn (2004) show that decentralization occurred even in metropolitan areas with lower central-city poverty, and Baum-Snow (2007) shows that the development of the interstate highway system in the 1950s and 1960s, which made commuting long distances into downtown easier, contributed significantly to sprawl.

These explanations for decentralization describe household behavior and either ignore business location decisions (fiscal-social problems) or assume businesses remain at the city center (natural evolution theory). Yet jobs, too, have decentralized to lower-density areas. People follow jobs to reduce their commutes, and jobs follow people to attract customers and workers (Kolko 2009). Extensive research has examined the effects of these trends on transportation behaviors and on other economic and social outcomes such as employment prospects, business productivity, workers’ skills acquisition, obesity, and public health.

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<sup>2</sup> The central business district of a metropolitan area can be defined in multiple ways. Both Kneebone (2009) and this paper rely on a list of CBD Census tracts from the 1982 Census of Retail and consider the CBD as the center of economic activity in a metropolitan area. Place names refer to metropolitan areas.

<sup>3</sup> “Natural evolution theory” is rooted in the monocentric city model, presented in Brueckner (1987); the “fiscal-social problems” explanation is based on the Tiebout (1956) model of residential sorting into jurisdictions.

## Research approach

This analysis uses data from several sources: population from the decennial Census, housing from the decennial Census and the United States Postal Service (USPS), transportation behaviors from the Census Transportation Planning Package (CTPP), and employment from the National Establishment Time-Series (NETS) database. We present findings at the state, metropolitan area, Census tract, or Census blockgroup level. Metropolitan areas consist of one or more counties, counties are divided into Census tracts, and Census tracts are divided into blockgroups and then blocks. Census tracts are defined to represent a neighborhood and have, on average, 4,000 inhabitants; the typical blockgroup has 1,500 inhabitants.

The decennial Census reports population and occupied housing unit counts and land area at the blockgroup (and block) level.\* CTPP transportation data are based on the 2000 Census and report commuting mode (drive alone, carpool, subway, bus, etc.) by place of residence and place of work at the tract and blockgroup level.

The NETS database is a national longitudinal microdata panel of the businesses in the Dun & Bradstreet business register. The NETS provides employment levels, detailed industry, and exact street address for more than 200 million establishment-year observations. The NETS records used here cover 1992–2006. No publicly available dataset approaches the comprehensiveness and geographic detail of the NETS. By geocoding the NETS, we generate employment totals by year by Census tract and blockgroup.\*\*

\* The latest decennial Census data are from 2000, and the follow-on American Community Survey (ACS) data do not yet report population or other variables at detailed levels of geography like Census tracts or blocks. Instead, we use tract-level data from 2008 on occupied housing units from USPS, which reports the number of addresses, active and vacant, residential and commercial, to the U.S. Housing and Urban Development Department (HUD). To our knowledge, these USPS/HUD housing unit data are the only nationally available tract-level data that show residential patterns after 2000.

\*\* Nationally, 94 percent of employment was in establishments that geocoded successfully, with higher shares in urban areas. We omitted un-geocoded establishments from the blockgroup totals. We imputed Census tract location for un-geocoded establishments by matching reported ZIP code to Census ZIP Code Tabulation Area (ZCTA) and then allocating that employment to tracts.

## Residential and Employment Density Patterns

Despite popular conceptions that California—particularly Southern California—is the epitome of sprawl development, residential density in California is well above the national average. In Table 1 we report weighted density measures, which are unaffected by the inclusion of undeveloped land within a metropolitan or state boundary.

Population density in California in 2000 was 49 percent higher than the national average.<sup>4</sup> California's population density increased from 1990 to 2000, even though national residential density was unchanged. Although tract-level data on population since 2000 are unavailable, housing unit density—also weighted—continued its slight upward trend from 2000 to 2008, both in absolute terms and relative to the national trend.

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<sup>4</sup> Because we report weighted density, this means that the typical person in California lives in a Census tract that is 49% more dense than the typical person in the U.S. overall.

### Measuring density

Conventional density is measured as the number of people (or housing units or workers) per square kilometer (or other measure of area). But metropolitan areas and states often include undeveloped or sparsely developed land, so conventional density measures can understate the density of the settled areas where people actually live and work.

Weighted density helps to account for this. Weighted density measures the number of people (or housing units or workers) in the areas where people actually live or work and therefore better reflect the land use patterns experienced by a typical person or worker.

Weighted population density for a metropolitan area is the weighted average of Census tract population density (tract population divided by tract land area) for all tracts in the metropolitan area, where the weight is the tract's share of metropolitan population. Tracts without population receive a weight of zero and therefore do not affect the weighted density of the metropolitan area (Glaeser and Kahn 2004). In effect, the weighted-density measure equals the tract density for the average person within a metropolitan area; we use the same method to calculate housing and employment density.

Because tracts with more population (or housing or employment) tend to have higher density, tract-weighted density measures for metropolitan areas tend to be higher than unweighted density measures. An alternative method for excluding undeveloped land is "net density": population (or employment) divided by land area excluding farmland, public lands, and other undeveloped areas (Galster et al. 2001). Net density requires detailed data on land uses in order to identify and exclude undeveloped land, whereas weighted density requires only on tract population (or employment) and land area.

To understand how weighted density measures work, consider two hypothetical cities, Sparseville and Densetown. Each has a population of 1,000 residents and consists of two one-square mile Census tracts. In Sparseville, 500 people live in each tract, whereas in Densetown, all 1,000 residents live in one tract and the other is undeveloped. Both Sparseville and Densetown have a conventional density of 500 people per square mile (1,000 residents divided by 2 square miles). But the weighted density measure is 500 people per square mile in Sparseville, since the average person lives in a tract with 500 people per square mile, while the weighted density measure in Densetown is 1,000 people per square mile, since the average person (in fact, all people) lives in a tract with 1,000 people per square mile.

Throughout this report, we report weighted density measures for metropolitan areas and states.

California's employment density is quite different than its population density. Employment density in California is lower than in the U.S. overall and—like the national trend—is falling.<sup>5</sup> In 2006, employment density was 15 percent below the U.S. average. Employment densities have fallen most sharply near downtown areas: In the six largest California metropolitan areas, employment densities within three miles of

<sup>5</sup> In general, employment density is higher than residential density: the employment density of the typical worker's Census tract is much higher than the residential density of the typical resident's Census tract, in part because people are more likely to work than live in areas like downtowns where both residential and employment density are high.

downtown fell nearly 25 percent between 1992 and 2006. Employment densities ten miles or more from downtown rose slightly over the same period.

**TABLE 1**  
Residential and employment density in California and the U.S. (persons, housing units, or workers per square kilometer)

	California	U.S.	Ratio
Population density			
1990	3073	2171	1.42
2000	3230	2171	1.49
Occupied housing unit density			
1990	1154	924	1.25
2000	1179	890	1.32
2008	1197	887	1.35
Employment density			
1992	7351	8995	0.82
2000	7088	8575	0.83
2006	5632	6645	0.85

NOTE: Density is reported as residents, houses, or workers per square kilometer. Tract density weighted by tract population, housing, or employment as appropriate, as explained in text. Intuitively, this equals the tract-level density for the average person, housing unit, or employee in the metropolitan area.

In general, both residential and employment density are higher in larger metropolitan areas. Table 2 shows how California's 12 largest metropolitan areas rank among the nation's metropolitan areas according to population, residential density, and employment density. Although metropolitan area population is generally closely correlated with employment and, especially, residential density, these large California metro areas display considerable variation in density.

**TABLE 2**  
National residential and employment density rankings for large California metropolitan areas, 2000

Metro	Population	Residential density	Employment density
Los Angeles-Long Beach-Santa Ana	2	2	23
San Francisco-Oakland-Fremont	12	3	3
Riverside-San Bernardino-Ontario	13	47	236
San Diego-Carlsbad-San Marcos	17	9	35
Sacramento-Arden-Arcade-Roseville	27	30	24
San Jose-Sunnyvale-Santa Clara	28	6	47
Fresno	58	40	144
Oxnard-Thousand Oaks-Ventura	61	19	212
Bakersfield	70	54	271
Stockton	82	21	209
Santa Rosa-Petaluma	98	89	206
Modesto	100	36	233

Note: Population data from Census; employment data from NETS. Each metropolitan area comprises one or more counties, following the 2008 Core Based Statistical Area definitions, as follows. Los Angeles-Long Beach-Santa Ana: Los Angeles and Orange Counties. San Francisco-Oakland-Fremont: San Francisco, Marin, San Mateo, Alameda, and Contra Costa Counties. Riverside-San Bernardino-Ontario: Riverside and San Bernardino Counties. San Diego-Carlsbad-San Marcos: San Diego County. Sacramento-Arden-Arcade-Roseville: Sacramento, El Dorado, Placer, and Yolo Counties. San Jose-Sunnyvale-Santa Clara: Santa Clara and San Benito Counties. Fresno: Fresno County. Oxnard-Thousand Oaks-Ventura: Ventura County. Bakersfield: Kern County. Stockton: San Joaquin County. Santa Rosa-Petaluma: Sonoma County. Modesto: Stanislaus County.

The Los Angeles metropolitan area ranks second in the nation in residential density, following New York. Yet it ranks only 22nd-highest in employment density. In fact, all but two metro areas—San Francisco and Sacramento—rank lower on employment density than on residential density, and many, including Riverside, Oxnard, and Bakersfield, rank much lower. San Francisco and Sacramento’s relatively high employment densities arise, in part, from the prevalence of industries that tend to cluster in traditional downtowns (like finance and government). San Francisco also saw rapid growth in a historical period when development patterns were denser.

The key fact for the analysis, below, is that employment density in California is below the U.S. average and falling. As we will show, lower employment densities are a challenge for supporting transit investments and for integrating land use and transportation planning.

## In Brief: Transit and Driving Trends

Mass transit is a key part of California's strategy to reduce traffic congestion, air pollution, and greenhouse gas emissions. Since the early 1980s, transit has accounted for well over a third of all transportation spending in California, with even higher shares in the major metropolitan areas. Most transit capital spending is associated with rail projects, including subways, commuter rail, light-rail, and streetcars (Bedsworth, Hanak, and Kolko 2011). This section reviews trends in transit ridership and its relationship to VMT reduction.

### Transit Ridership and Proximity

For the state as a whole, the share of commuters taking transit increased from 5 percent to 5.5 percent between 1990 and 2008—76.4 percent of all commuters still drive alone to work. Nationally, the share of commuters taking transit looked much the same: 5.3 percent in 1990 and 5.2 percent in 2008.

The share of commuters taking transit to work varies by metropolitan area, with the highest transit ridership in higher-density metropolitan areas. The San Francisco area has the second-highest transit ridership in the country, 15.3 percent of commuters, though this is only half the level of New York (Table 3). The next-highest transit use in California occurs in Los Angeles—6.6 percent of commuters, less than half San Francisco's ridership. Other large California metropolitan areas are well below the Los Angeles level, with the Inland Empire (Riverside and San Bernardino counties) having a transit share of just 1.9 percent.

Just as transit ridership varies across metropolitan areas, ridership varies within metropolitan areas. Proximity is an important factor. Transit ridership diminishes rapidly as distances from transit stations increase: one-quarter mile is the limit that most people will walk for most trips (Untermann 1984). Cervero (2007) uses one-half mile as the distance within which residents' transit ridership differs from residents elsewhere on average, though he finds that residents of developments built near transit are more likely to commute by transit even if their workplaces are one mile from transit. Most studies of transportation behaviors reviewed in Arrington and Cervero (2008) and Cervero, Ferrell, and Murphy (2002) use either one-quarter mile or one-half mile as the distance from a station that affects mode choice.

Data from California illustrate how strongly proximity to transit determines ridership—even more for workplace proximity than for residential proximity.<sup>6</sup> Within one-half mile of a transit station, 6.7 percent of residents and 7.2 percent of workers commute by subway, streetcar, or railroad (Table 4). In contrast, beyond one-half mile of a transit station (but still in counties with stations), only 1.1 percent of residents and 0.5 percent of workers commute by subway, streetcar, or railroad. Ridership, therefore, falls quickly at greater distances from transit. Yet even among Californians who live or work *within* half a mile of a transit station, the majority drive alone to work—so proximity to transit hardly guarantees high ridership.

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<sup>6</sup> We measure the distance from Census blockgroups to the nearest transit station (or "node") that was operational prior to 2000, including stations on fixed-line rail, subway, streetcar, and a handful of bus-rapid-transit (BRT) routes, but not standard bus lines. Later in this report we describe these transit stations and their selection in greater detail. Blockgroup-level commute mode data come from the 2000 CTPP.

TABLE 3  
Transit ridership among 40 largest U.S. metros, 2008

Metropolitan Area (California metros in bold)	Share of Commuters Using Transit (%)
New York-Northern New Jersey-Long Island	31.6
<b>San Francisco-Oakland-Fremont</b>	<b>15.3</b>
Washington-Arlington-Alexandria	14.1
Boston-Cambridge-Quincy	12.2
Chicago-Naperville-Joliet	11.8
Philadelphia-Camden-Wilmington	9.6
Seattle-Tacoma-Bellevue	8.4
Baltimore-Towson	6.8
Portland-Vancouver-Beaverton	6.8
<b>Los Angeles-Long Beach-Santa Ana</b>	<b>6.6</b>
Pittsburgh	6.0
Denver-Aurora	5.2
Minneapolis-St. Paul-Bloomington	5.0
Cleveland-Elyria-Mentor	4.1
Miami-Fort Lauderdale-Pompano Beach	3.9
Milwaukee-Waukesha-West Allis	3.8
Las Vegas-Paradise	3.8
Atlanta-Sandy Springs-Marietta	3.8
<b>San Jose-Sunnyvale-Santa Clara</b>	<b>3.8</b>
<b>San Diego-Carlsbad-San Marcos</b>	<b>3.6</b>
Austin-Round Rock	3.2
<b>Sacramento--Arden-Arcade--Roseville</b>	<b>3.0</b>
St. Louis	2.8
Providence-New Bedford-Fall River	2.8
Houston-Sugar Land-Baytown	2.7
Phoenix-Mesa-Scottsdale	2.7
Cincinnati-Middletown	2.7
San Antonio	2.7
Charlotte-Gastonia-Concord	2.4
Virginia Beach-Norfolk-Newport News	2.2
<b>Riverside-San Bernardino-Ontario</b>	<b>1.9</b>
Detroit-Warren-Livonia	1.9
Columbus	1.8
Dallas-Fort Worth-Arlington	1.7
Orlando-Kissimmee	1.6
Kansas City	1.6
Tampa-St. Petersburg-Clearwater	1.4
Indianapolis-Carmel	1.3
Jacksonville	1.2
Nashville-Davidson--Murfreesboro--Franklin	1.1

NOTE: "transit" includes subway, railroad, bus, ferry, and streetcar. People working from home are excluded. See Table 2 for counties included in California metropolitan areas. Source: American Community Survey, 2008 (1-year estimates).

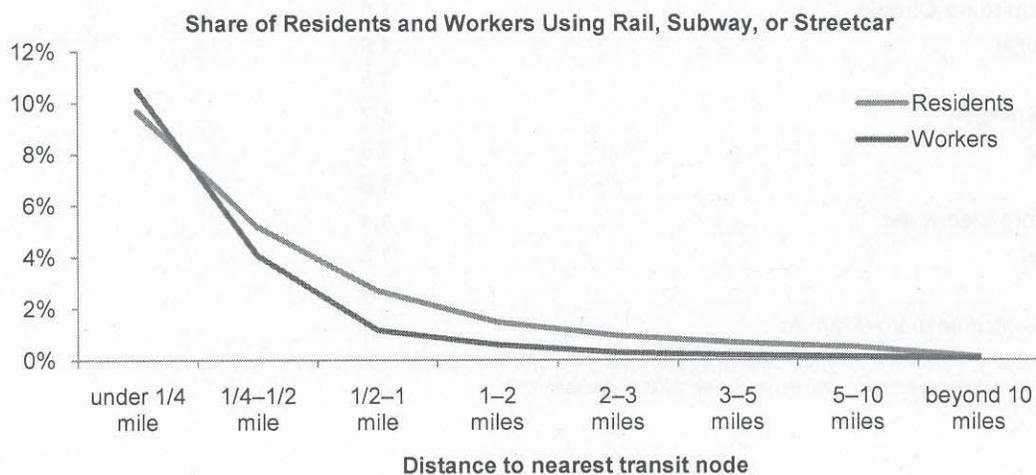
TABLE 4  
Commuting mode, by proximity to transit stations, 2000

	Live within 1/2 mile of transit node (%)	Live beyond 1/2 mile of transit node, in county with transit nodes (%)	Live in county without transit nodes (%)	Work within 1/2 mile of transit node (%)	Work beyond 1/2 mile of transit node, in county with transit nodes (%)	Work in county without transit nodes (%)
Subway	4.3	0.7	0.1	5.0	0.2	0.0
Streetcar	1.6	0.1	0.0	0.9	0.1	0.0
Railroad	0.8	0.3	0.0	1.3	0.2	0.0
Bus	13.5	3.8	1.8	10.4	3.4	1.5
Bike	1.7	0.7	1.1	0.9	0.7	1.2
Walk	7.7	2.5	3.2	3.8	2.7	3.3
Carpool	14.0	14.9	16.0	14.1	15.1	15.7
Drive alone	54.6	75.9	76.5	62.0	76.6	77.2
Share of residents or workers	6	74	21	12	68	18

NOTE: 2000 CTPP commuting behavior, relative to nodes operational 1999 or earlier. Columns 1, 2, 4, 5 include only counties with transit nodes: Alameda, Contra Costa, Los Angeles, Orange, Riverside, Sacramento, San Bernardino, San Diego, San Francisco, San Joaquin, San Mateo, Santa Clara, and Ventura. Other modes—ferry, motorcycle, taxi, and "other"—account for 1 percent of commutes. Excludes people working at home (3.8 percent of all California workers). Respondents who used mixed modes (e.g., bus plus rail or some form of transit plus driving) are asked to choose the principal mode, based on the longest distance traveled.

In fact, fixed-line transit ridership falls considerably at distances beyond just one-quarter mile of a transit station. Looking only at the share of commuters using subway, streetcar, or railroad, the likelihood of using transit falls by approximately half when comparing residents or workers within one-quarter mile of a transit station and those between one-quarter and one-half mile of a transit station (Figure 1). As distance from a transit station increases, the likelihood of using transit fall dramatically for both residents and workers—but especially for workers. Transit ridership for workers within one-quarter mile of a station is slightly higher (10.5 percent versus 9.7 percent) than for residents within the same distance, but, for each interval beyond one-half mile of a station, transit ridership is at least twice as high for residents as for workers.

FIGURE 1  
Transit ridership decreases as distance from transit stations increases



NOTE: Commute mode data from the 2000 CTPP. Distance measured as straight-line distance from the centroid of the blockgroup of residence or workplace to the nearest transit station operational as of 2000.

Even among those who live near transit stations, ridership varies: 45 percent of Pleasant Hill BART TOD's residents commuted via transit, compared to only 3 percent of the LA Metro Long Beach TOD's residents (Lund et al. 2004). Workers' transit ridership was sensitive to workplace distance from the transit station. But residents' transit ridership was not sensitive to residential distance from the transit station.<sup>7</sup> Transit ridership also depended on transit quality, including travel time and frequency of feeder bus services, as well as the availability and cost of workplace parking (Lund et al. 2004). Much of the relationship between household proximity to transit and transit ridership is self-selection: people who want to commute by transit choose to live near transit. Relaxing zoning regulations or other barriers to mobility would facilitate this self-selection and raise transit ridership (Cervero 2007).

## Does Transit Investment Reduce VMT?

Transit investment and even transit ridership do not necessarily lead to VMT reduction. Even though transit availability is associated with higher transit ridership for nearby residents and workers, the effect of transit investment on VMT depends on numerous factors, some of which become apparent only after looking across multiple metropolitan areas that have experienced different rates of growth in public transit infrastructure.

Although transit's share of commuting rose in California from 1990 to 2008, VMT per capita rose as well, by 3.5 percent (this was less than the national increase of 13.7 percent). Among California's large metropolitan areas, those where transit share increased saw no greater reduction (or slower growth) in VMT per capita.<sup>8</sup> Three possible reasons help explain this.

First: Rail investments tend not to increase overall transit ridership in most cities; rather, most rail transit commuters are former bus commuters, not former drivers, and the main effect of rail investment may be giving transit users a faster transit option rather than reducing VMT and associated emissions (Baum-Snow and Kahn 2005). Changes in commuting patterns support this claim for the nation overall but not for California. In the country as a whole, from 1990 to 2008, the share of fixed-line transit commutes (rail, subway, and streetcar) rose by 0.21 percent while the share of other transit commutes (primarily bus) fell by 0.26 percent. In California, the fixed-line transit share rose by 0.57 percent while other transit share fell by just 0.07 percent. The increase in California's fixed-line transit share was almost entirely a net increase in overall transit ridership.

Second: The "fundamental law of highway congestion" posits that road expansions are met with proportional traffic increases. Research has found that public transit investments have no effect on aggregate VMT, while road investments raise VMT proportionally (Duranton and Turner 2009). This research suggests that road investments raise VMT mostly by encouraging additional household driving and inducing more commercial driving.<sup>9</sup>

Third: Transit investments typically aim to serve commutes, which occur at peak times on the most congested routes. But commuting accounts for only 27 percent of total VMT. Non-commute trips like those

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<sup>7</sup> All sites studied were "within reasonable walking distance" of a TOD. Since residents elsewhere in the cities studied were much less likely to commute by transit, distance to transit affects transit ridership outside walking distance from a TOD.

<sup>8</sup> Data on commuting patterns in this section come from the 1990 Census and the 2008 American Community Survey. Data on VMT come from the Federal Highway Administration's Annual Highway Statistics.

<sup>9</sup> An extensive research literature on "induced travel demand" dates back to Downs (1962).

to stores, schools, and family or social events are much less likely than commute trips to use transit.<sup>10</sup> Thus, increased transit investment and commute ridership could displace, at best, only a fraction of total VMT.

Therefore, transit investments might not reduce overall VMT. But public transit investments may be desirable for other reasons, not least for expanding transportation options without raising VMT as much as road investments would.

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<sup>10</sup> Hu and Reuscher (2004), Tables 6 and 9.

## How Land Use and Transportation Connect

The relationship between land use patterns and transportation is “the most heavily researched subject in urban planning” (Ewing and Cervero 2010). This section reviews the evidence on the effect of land use patterns on transportation behaviors, and conversely, the effect of transportation features (like transit stations) on land values and development.

### The Effect of Land Use on Transportation

In their wide-ranging research review and meta-analysis, Ewing and Cervero (2010) conclude that land use patterns have a modest but often statistically significant effect on transportation behaviors. As they point out, many studies of this question fail to consider causality: an observed relationship between, for instance, density and VMT could be caused by people who prefer transit choosing to settle in higher-density neighborhoods, rather than neighborhood density actually changing the travel behavior of residents. However, studies attempting to assess causality by controlling for individuals’ attitudes or focusing on people moving to different neighborhoods (Handy, Cao, and Mokhtarian 2005) have generally confirmed that density actually does affect travel behavior (Ewing and Cervero 2010).

The extent of a relationship between land use and transportation behaviors varies by different components: trip length, trip frequency, and “mode choice”—whether people travel by car, transit, or other means. Of these components, trip length and mode choice are most affected by local land use patterns. Trip frequency is determined primarily by household socioeconomic characteristics (Ewing and Cervero 2001).

Among measures of land use patterns, two “destination accessibility” measures—“job accessibility by auto” and living closer to downtown—have the strongest relationship to VMT (Ewing and Cervero 2010). Put simply, people who live closer to jobs or other destinations drive less. The relationship between proximity to jobs and VMT is strongest when proximity is defined as the availability of jobs within four miles of home, and this “jobs-housing” balance is more strongly related to VMT than the proximity of retail and services (Cervero and Duncan 2006).<sup>11</sup> Design attributes of street networks, such as short blocks and many intersections, also reduce VMT by encouraging walking and transit ridership. Controlling for these various land use measures, residential density has a weak relationship with VMT, and the relationship between employment density and VMT is even weaker (Ewing and Cervero 2010).

However, some land use measures are correlated with density: for instance, densities are higher closer to downtown, where blocks tend to be shorter and destinations more accessible by transit. Furthermore, focusing on the independent effect of each land use measure, holding other measures constant, may understate the overall effect of the built environment on transportation. Policies designed to change one land use measure in fact change related measures as well, so the effect of land use on transportation behaviors may be, as Ewing and Cervero (2010) note, “quite large” even though the relationship between many individual land use measures and transportation behaviors is small.

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<sup>11</sup> Measures of the jobs-housing balance for places in California are available from PPIC on request.

From a policy perspective, what is “quite large”? The Transportation Research Board (2009) concluded that doubling residential density would lead to a 5–12 percent reduction in VMT, and possibly up to a 25 percent reduction with complementary changes in transit availability, the jobs-housing balance, and other factors. The committee involved in this research effort disagreed on how large an increase in residential density would be feasible and reported two scenarios. In the first scenario, 25 percent of new residential development would be twice as dense as typical new development, and residents of new developments would reduce VMT by 12 percent; as a result, overall VMT reductions over the period 2000–2050 relative to the base case would be roughly 1.5 percent. In the second scenario, 75 percent of new residential developments would be that dense, and residents of these new developments would reduce VMT by 25 percent; as a result, overall VMT reductions would be roughly 10 percent (TRB 2009, Table 5-2).<sup>12</sup>

The research literature suggests that integrated policies—such as those including both land use and transportation components—have a greater effect on VMT than land use policies alone. The Transportation Research Board (2009) report also considered a scenario of higher density *plus* complementary changes like transit availability that would lead to twice as large a VMT reduction as the upper-bound estimate of higher density alone. Rodier’s (2009) review of studies modeling the effect of land use, transportation, and pricing policies on VMT echoes this conclusion. Among the studies she reviews, transit policies alone (like service improvements) resulted in a median VMT reduction of 0.9 percent over 20 years; land use policies alone (like increased density) resulted in a median VMT reduction of 1.1 percent. But combined land use/transit policy scenarios resulted in a median VMT reduction of 8.1 percent. The estimated effect of integrated policies was far greater than the sum of land use and transit policies on their own. Some of this larger-than-additive effect arises because the models used to estimate effects of integrated policy scenarios deliver larger VMT reductions than simpler models do, even for the same policy (Rodier 2009). Nonetheless, some of the synergy appears to be due to policy coordination, not just methodological differences in the models.<sup>13</sup>

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<sup>12</sup> TRB (2009) considered only residential density, not commercial/employment density, noting that forecasting commercial densities involved greater uncertainty and that modeling the relationship between commercial density and VMT were “beyond the resources of the study” even though the committee “recognized the importance of commercial development” (p. 148).

<sup>13</sup> A third policy category, focusing on pricing, had larger effects: Cordon, congestion, and parking pricing policies, taken singly, had larger VMT reductions than land use or transit policies taken singly, and VMT and fuel taxes had dramatically larger VMT reductions than all other policies. But the maximum reductions were associated with coordinated land use – transit – pricing policies.

### Beyond transportation: How land use affects emissions

Land use patterns affect emissions in many ways apart from transportation. Residents of center cities produce fewer emissions than suburban residents not only because of different transportation behaviors but also because city residents are more likely to live in smaller housing units, which consume less electricity (Kahn 2010). And residential emissions, through transportation, home heating, and electricity, vary not only across neighborhoods but also across metropolitan areas (Glaeser and Kahn 2010).

In several temperate California cities, per-household carbon emissions are lowest in the nation. These emissions are highest in several southern and southwestern U.S. cities, where demand for air-conditioning is high: per-household emissions are nearly twice as high in Memphis as in San Jose. Such comparisons suggest that the distribution of population across metropolitan areas could have a marked effect on overall national emissions. Strategies that could encourage growth in lower-emissions areas include a national carbon tax or, at the local level, relaxing restrictions on development in lower-emissions areas.\*

\* Glaeser and Kahn (2010) find that land-use regulations are more restrictive in lower-emissions areas like Los Angeles, San Francisco, San Jose, and San Diego than elsewhere.

### Employment Patterns Affect Transit Use More Than Residential Patterns Do

Research on land use patterns and their relationship with transportation has focused primarily on residential land use rather than on commercial land use.<sup>14</sup> Residential density around transit nodes, residents' travel patterns, and residential land use receive more attention in the research and policy literature than employment density, workers' travel patterns, and commercial land use do. One reason for this disparity is that data on population and housing for small geographic areas, like Census tracts, are more widely available than analogous data on employment, making it easier to measure patterns and trends in residential land use. Also, the classic land-use model that underpins the urban economics and planning literatures—the monocentric city model—assumes all employment to be at the city center, and that people make residential decisions based on commuting distance from their downtown jobs, the cost of housing, and other factors. Numerous policy studies and recommendations have focused primarily or exclusively on residential density and residential growth near transit stations (Transportation Research Board 2009; Calthorpe Associates 2010; Metropolitan Transportation Commission 2010). They rarely focus on employment patterns or growth.

Recent work, however, has challenged the traditional emphasis on housing density and residential land-use patterns by arguing that the location of employment matters critically to transportation behaviors. Employment densities and workplace proximity to transit are at least as important as residential patterns for achieving transportation goals (Frank and Pivo 1994). Theoretically, workplace proximity to transit should matter *more* for transit ridership than residential proximity to transit because “unlike the home end of the

<sup>14</sup> Throughout the paper, “commercial” land use or development refers to all forms of non-residential land use or development – including retail, office, and industrial.

trip, where there are many options for accessing transit, generally, walking is the only available option at the work end” (Barnes 2005). Accordingly, employment densities at trip destinations affect ridership more than residential densities at trip origins (Arrington and Cervero, 2008; Transportation Research Board 2009).<sup>15</sup> Furthermore, achieving high commercial densities is often more feasible politically than achieving high residential densities (Barnes 2005). Yet these research conclusions have not yet been fully incorporated into policy: “Connecting destinations to create ridership may seem like an obvious conclusion, but plans and policies have not reflected this approach. Most TOD policy have [*sic*] focused on residential development, rather than promoting agglomeration of jobs and commercial space in regional centers served by transit” (Center for Transit-Oriented Development 2009, p. 28).

Our own analysis confirms this.<sup>16</sup> Looking across all metropolitan areas in the United States, those with higher density have higher transit ridership, but the magnitude of the relationship between employment density and transit ridership is twice as large as that between residential density and transit ridership. Furthermore, metropolitan areas where employment is more centralized in downtowns have higher transit ridership, even after taking residential and employment density into account. At the neighborhood level, transit ridership is higher both among residents of a Census tract where tract residential density is higher and among workers in a Census tract where tract employment density is higher. And again, the relationship is slightly stronger for workers and employment density.<sup>17</sup> Transit investments, particularly in fixed-line systems such as subways, railroads, and streetcars, involve large capital costs that make economic sense only if potential ridership is high: denser areas support more transit investment, offer greater transit access, and have higher transit ridership. California’s relatively low employment density—especially outside of the San Francisco-Oakland metropolitan area—is therefore a challenge for supporting transit investments and raising ridership.

## The Effect of Transportation on Land Use

Just as land use patterns influence transportation behaviors, transit investments have the potential to influence land use outcomes, including land values and densities. Over small geographic areas, such as a neighborhood or the one-quarter or one-half-mile circle around a transit station discussed earlier, transit investments could raise nearby property values if the increased accessibility raises demand in the immediate area for residential or commercial space. Increased demand could, in turn, lead to higher residential or commercial densities, in the absence of constraints on development. Alternatively, land values could fall if transit and any associated development create problems such as congestion or noise. The relationship between transit and surrounding land values and densities depends both on how businesses and residents value proximity to transit and on public-sector decisions about zoning, land use, and other incentives for transit-oriented development. This section reviews recent research on land use outcomes around transit stations.

Most of this research looks at property values rather than density. Giuliano and Agarwal (2010) consider changes in density to be only a “second-best measure” as a proxy for land values because changes in land value will affect density only if zoning and other land use policies permit. In reviewing the literature on

<sup>15</sup> Employment near transit in more residential areas has the additional advantage of encouraging “bi-directional ridership,” maximizing the usage of transit infrastructure rather than trains running empty in the non-commute direction (Center for Transit-Oriented Development, 2008).

<sup>16</sup> See appendix for details.

<sup>17</sup> The standardized beta from a tract-level regression of residents’ transit ridership on log residential density is .38, and the standardized beta from a tract-level regression of workers’ transit ridership on log employment density is .47. Both coefficients are statistically significant, and both regressions include metropolitan-area fixed-effects.

transit and property values, Cervero, Ferrell, and Murphy (2002) emphasize that “numerous” studies find a positive relationship with property values, while Giuliano and Agarwal (2010) conclude that “results are quite mixed,” in part due to different research methods.<sup>18</sup>

However, for assessing the contribution of transit access to outcomes like transit ridership and resulting VMT reduction, density is more relevant than land value. A new transit station that raises surrounding land values but leaves densities unchanged will have a smaller effect on overall transit ridership than a transit station near which land values rise less but densities increase. Higher densities mean more residents, workers, or both are in close proximity to transit, which—as shown in the previous section—raises ridership. At the same time, zoning could prevent people who would use transit from moving close to transit stations (Cervero 2007).

Fewer studies have looked at land use changes, such as density, around new transit stations. Cervero and Landis (1997) found minimal impact of new BART stations in the San Francisco Bay Area on office construction and employment. Most new development was near freeways, not BART, though employment did increase around stations in downtown San Francisco, downtown Oakland, and a few other stations.<sup>19</sup> Reviewing numerous studies of land use patterns around transit stations, Giuliano and Agarwal (2010) conclude that “rail transit does not consistently lead to significant land use changes,” and the land use changes that do occur are facilitated by complementary land use policies like development incentives and “stringent” parking management policies.<sup>20</sup> Yet the relationship between transit investment and land use patterns is far from settled. The Transportation Research Board (2009) called for further study of metropolitan employment patterns, of the development of employment sub-centers, and of “before-and-after studies of policy interventions to promote more compact, mixed-use development” (p. 205).

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<sup>18</sup> Lin (2002), Redfean (2009), Mathur and Ferrell (2009), and Debrezion et al. (2007) assess property value changes around transit stations using various methodologies.

<sup>19</sup> Cervero and Landis (1997) measure employment at the ZIP code level using Census County Business Patterns, as well as employment aggregate data from the Census Transportation Planning Package. They measure office construction annually at the parcel level using property tax records. They find office construction greater around BART stations where the level of employment density is higher. However, they measure employment density in 1990, close to the end of the interval over which the dependent variable, office construction, is measured (1973–1993), which brings into question their conclusion that employment density helps to explain the variation in office construction rates.

<sup>20</sup> They provide detail reviews of studies in Portland, the San Francisco Bay Area (Cervero and Landis 1997), and Atlanta.

# Transit and Development in California

Transit-oriented development is a prime example of the type of integrated land use and transportation planning that has the potential to reduce VMT as envisioned under SB 375. California already has experience with transit-oriented development and strategies for future development. Did California have success in raising densities near new transit stations to maximize transit ridership and VMT reductions prior to SB 375 implementation? This section evaluates growth around all new transit stations in California between 1992 and 2006.

## Transit Expansion in California

Our analysis of employment and residential growth and density around new transit nodes relies on data from the NETS, the Census, and information we collected on all new transit stations in California that became operational between 1992 and 2006. We included transit stations on fixed-line rail, subway, streetcar, and bus-rapid-transit (BRT) routes (we did not include standard or limited-stop bus lines). Compared to buses, fixed-line modes tend to offer faster speeds, cover longer distances, and have greater ridership capacity, making them more attractive anchors for TOD. The permanence of fixed-line transit stations also adds to their lure for associated land-use development, though this permanence also means that fixed-line routes, unlike buses, cannot be easily rerouted in response to changing development patterns or demand.<sup>21</sup>

The transit stations that opened in California between 1992 and 2006 were part of numerous systems throughout the major metropolitan areas of the state. In all, 217 stations opened, including extensions to BART in the San Francisco Bay Area, the Sacramento light rail system, the San Jose light rail system, San Francisco MUNI, and LA Metro Rail, and new or largely new systems like the Altamont Commuter Express, Coaster San Diego, the Harbor Transitway, and Metrolink Southern California (Table 5).<sup>22</sup> The only new stations excluded from this analysis were those that overlapped with pre-existing stations on other routes.<sup>23</sup> Dozens of additional stations have opened after 2006, are under construction, or are planned, such as SF MUNI's Third Street line, the LA Metro Rail Expo line to Culver City, a light rail line from Monterey to Castroville, and the South Bay Bus Rapid Transit line from downtown San Diego to the border.

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<sup>21</sup> Fixed-line routes have high capital costs and therefore represent a notable share of California's investment in transportation and presumably the vast majority of transit capital investments. Over the past three decades, transit investments have accounted for 20 to 30 percent of all transportation capital expenditures (Bedsworth, Hanak, and Kolko 2011).

<sup>22</sup> Information on these stations, including exact address and opening date, was gathered from transit system websites and from the National Transportation Atlas Database compiled by the Bureau of Transportation Statistics.

<sup>23</sup> The main instance of this overlap was the Market Street portion of the San Francisco MUNI F-line streetcar, which runs directly above MUNI Metro lines and BART trains. The F-line portion along the San Francisco wharves, however, does not overlap older fixed-line transit routes and therefore was included.

**TABLE 5**  
Fixed-line transit stations in California

System	Nodes open before 1992	New nodes, 1992–2006
Altamont Commuter Express	0	8
BART	33	10
Caltrain	31	1
Coaster San Diego	0	6
Harbor Transitway	0	7
LA Metro BRT	0	13
LA Metro Rail	22	40
Metrolink Southern California	1	52
MUNI fixed lines	110	17
Sacramento Light Rail	31	18
San Diego Trolley	36	16
San Jose Light Rail	34	29
<b>TOTAL*</b>	<b>298</b>	<b>217</b>

NOTE: Total nodes before 1992 double-counts some stations on multiple systems, like Montgomery MUNI and Montgomery BART in downtown San Francisco. Total new nodes (1992–2006) does not double-count any nodes and does not include nodes overlapping with older nodes, like the F-Market above-ground streetcar Montgomery stop in San Francisco.

New transit stations opening between 1992 and 2006 were located in areas with higher residential density and much higher employment density than areas more than one-half-mile from a transit station (Table 6).<sup>24</sup> This strategy is consistent with the need to deliver high ridership in order to support transit investments. However, density around newer transit stations was lower than density around transit stations that opened before 1992: older transit stations—such as the central portions of BART and the LA Metro Rail—are located in big-city downtowns, the places in the state with the highest employment density. Older systems that have expanded since 1992—BART and LA Metro Rail, as well as Sacramento Light Rail, the San Diego Trolley, and San Jose Light Rail—have typically added new stations by extending lines outward rather than by adding stations in dense downtowns.

**TABLE 6**  
Residential and employment density for blockgroups around older nodes, newer nodes, and rest of state

	Residential density, 1990	Employment density, 1992
Within ½ mile of pre-1992 nodes	6864	32392
Within ½ mile of nodes opening 1992–2006 but not pre-1992 nodes	5627	11146
More than ½ mile from old or new nodes, in counties with transit nodes	3673	3969
Counties without transit nodes	1571	1368

NOTE: Density weighted by population or employment in the blockgroup.

New transit stations are also often located near a freeway. Many transit stations, in fact, are located in freeway medians, such as portions of the LA Metro Rail Green Line and many BART stations in the East Bay. Medians have the advantage of being an existing right-of-way, as opposed to land already occupied with

<sup>24</sup> Employment density is the main factor. Residential density does not positively affect the location of new transit stations holding other factors, including employment density, constant.

other uses, but stations in medians may pose a challenge for land-use development since the area immediately adjacent to the station is the freeway, which makes pedestrian access more difficult (though proximity to a freeway could facilitate park-and-ride usage).

These patterns are consistent with maximizing the potential for transit ridership through transit investments. Transportation policy in California has successfully located transit stations in higher density areas, which should therefore lead to higher transit ridership and, in turn, greater VMT reduction for the metropolitan area or region.

## Employment Growth Around New Transit Stations

In the context of SB 375 and integrated land use/transportation planning, steering growth toward new transit stations is expected to increase the share of residents, workers, or both near stations, thus raising overall transit ridership and lowering VMT. Encouraging growth around transit stations could also be an economic development strategy in itself to increase employment opportunities in a given area, but economic development is often at best a secondary goal of transportation planning, even when integrated with land-use planning (California Department of Transportation 2002 and 2010).

As noted earlier, our primary research focus is employment growth, rather than residential growth, property values, or other measures. And as demonstrated above, employment patterns are at least as important for transit ridership as residential patterns. The NETS provides data on employment on an annual basis at the street address level, which allows us to estimate employment counts within a precise distance of a transit station, just before and after the station opens. Information on residential trends is not available with comparable frequency or geographic specificity.

For assessing the potential contribution of transit investments to VMT reduction, changes in density are a better measure than changes in property values, even though changes in property values may be a better indicator of the economic development impact of transit investments (Giuliano and Agarwal 2010). Economic theory suggests that an increase in demand for land puts upward pressure on land values and induces development unless restricted by zoning or other constraints. Thus, increased density around a new transit station would mean that the demand for land around the station increased AND new development was permitted. An increase in land values WITHOUT an increase in density would still reflect an increase in demand for land around the transit station, but less potential for VMT reduction because the number of people or jobs near the transit station (and therefore likely to use transit) did not increase.

Assessing density rather than land value changes has another methodological implication. While the announcement of a new transit station might immediately raise the value of surrounding land through “capitalization,” density probably would not increase until the station is operational.<sup>25</sup> When a station is announced, developers might immediately bid up the price of the surrounding land in anticipation of the greater demand for tenants in their developments, but theoretically we should expect a business seeking to locate near the new transit station to be willing to pay the increased rent only once the station opens, making the location more accessible. Therefore, studies of property values around transit stations, should consider planned station announcements; in contrast, this research on density focuses on station opening dates.

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<sup>25</sup> In their review, Giuliano and Agarwal (2010) note that some of the studies reporting higher land values around stations examined the period after stations were announced but before they were completed.

Analyzing employment changes around transit stations raises additional methodological issues. The first is choosing an appropriately sized area of land around the station. The research literature and the above findings on transit proximity and usage suggest a steep drop-off in usage starting one-quarter-mile beyond the station, which increases even more beyond one-half-mile. In our analysis, we focus on density changes in both the one-quarter-mile and the one-half-mile circle around the transit station.<sup>26</sup>

The second methodological issue involves how to assess the relationship between employment density changes and transit station openings: Are these changes associated with the station opening or would they have happened anyway? We use the difference-in-differences approach, comparing employment growth before and after a station opens with employment growth in a comparison area that should be affected by the same economic trends and is as similar as possible to the transit station area except for actually having a transit station. The comparison area for each transit station is a set of twenty nearby (though not necessarily adjacent or contiguous) Census blockgroups, selected for their similarity to the transit station area on measures such as density and proximity to the central business district, to older transit stations, and to highways. Using regression analysis, we estimate the change in employment growth associated with the opening of a transit station, relative to the comparison areas, controlling for other factors. This method can be used to estimate employment growth associated with the opening of a particular transit station or the average employment growth associated with the full set of transit stations that opened after 1992 and before 2006.<sup>27</sup> Full technical details about this methodology and results are in the Technical Appendix.

Averaging across all new transit stations, employment growth is one percentage point *lower* after a station opens than before it opened, relative to the comparison area. However, this difference from zero is not statistically significant, meaning that the true effect may be zero rather than negative. There is no evidence of faster employment growth one, two, or three or more years after the station opens than before it opened, either. Areas around new transit stations do exhibit faster employment growth than comparison areas *before the station opens*—so new transit stations tend to be located in areas where employment growth was *already* faster than comparison areas. Despite this, the opening of the new transit station was not associated with any boost in employment growth, which is what one would expect if the transit station opening raised demand for land and builders could respond with new development.

Although the average employment growth associated with a new transit station opening is not statistically significant, the employment growth associated with the opening of individual transit stations ranged from large, statistically significant increases to large, statistically significant declines. Of 204 stations that opened between 1992 and 2006, 18 exhibited statistically significant, positive employment change in the surrounding area relative to comparison areas; 20 exhibited statistically significant, negative employment change in the surrounding area relative to comparison areas. Figures 2 and 3 illustrate the employment growth associated with the opening of new transit stations in the Los Angeles and Sacramento areas, respectively, relative to comparison areas. Blue circles indicate faster employment growth in the station areas than in comparison areas, red circles indicate slower employment growth in the station areas, filled-in circles indicate statistical significance, and the size of the circle reflects the size of the growth differential. These figures show that transit stations whose openings were associated with faster employment growth were scattered across

<sup>26</sup> The analysis considers employment growth for a fixed area – one-quarter or one-half-mile – around the transit station. Density is employment divided by land area. Thus, when looking at the same land area over time, a change in employment is equivalent to a change in employment density.

<sup>27</sup> Because the NETS employment data covers 1992–2006, we only observe employment data after opening for stations opening in 1992 and only observe employment data before opening for stations opening in 2006. Our sample in the regression analysis includes the 204 transit stations that opened between 1993 and 2005.

regions and, within regions, across transit systems and routes. Some transit stations near each other exhibited similar patterns, but there are no consistent differences across regions, systems, or lines. Transit stations with statistically significant employment increases include the Hollywood/Highland and Hollywood/Vine stations on the LA Metro Rail, the Beach and Jones Streets stop near Fisherman's Wharf on the MUNI F Wharves line in San Francisco, and the Sylmar/San Fernando station on the Metrolink Antelope Valley line in Los Angeles County (see text box).

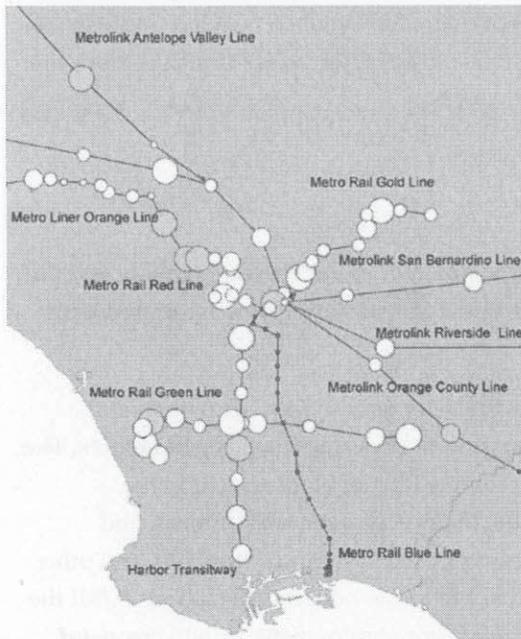
### **Different paths to employment growth: Hollywood/Highland and Sylmar/San Fernando**

Stations associated with large, statistically significant increases in employment growth include the Hollywood/Highland and Hollywood/Vine stations on the LA Metro Rail Red Line in Hollywood and the Sylmar/San Fernando station on the Metrolink Antelope Valley line in Los Angeles County's northern San Fernando Valley. These stations were located in very different neighborhoods with very different TOD strategies.

The Hollywood/Highland underground subway station opened in 2000 and was a high-profile transit-oriented development project focused on retail and entertainment along Hollywood Boulevard. The Los Angeles Community Redevelopment Agency was integral in assembling land for development, negotiating financing with the city, and securing approvals for the \$600 million project that resulted in the Hollywood & Highland Retail Center, the Renaissance Hollywood Hotel, and the Kodak Theater (Cervero et al. 2004; California Department of Transportation, 2002). Both the Hollywood/Highland and the neighboring Hollywood/Vine stations were dense, developed, mixed-use areas even before their station openings.

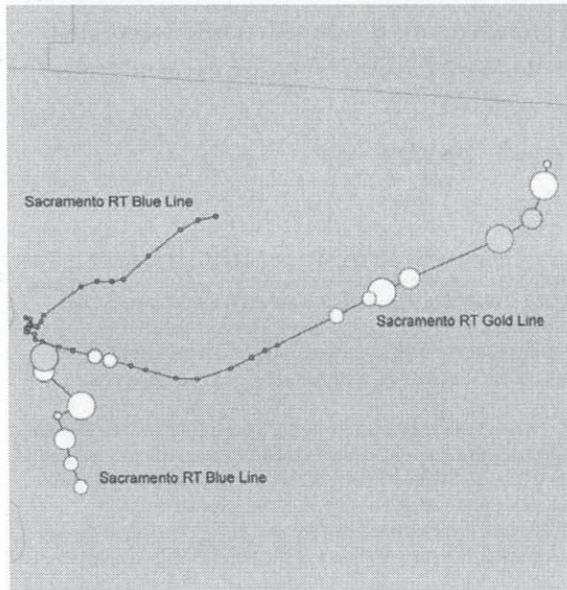
The Sylmar Metrolink station in Santa Clarita opened in 1994. The nearby "Montage at Village Green" housing development opened in 2000. Whereas most TODs focusing on housing are "mixed-use developments" incorporating some commercial space, the Montage was exclusively a housing development (Moses et al., 2009). Data from the NETS database reveal that employment growth that accompanied the station development included small businesses across numerous industries, including grocery wholesaling, light manufacturing, construction, and real estate brokerage. Many of these businesses were located between the station and the housing development. The Sylmar example shows that employment can grow around new stations even when the station TOD strategy emphasizes residential development.

**FIGURE 2**  
 Employment growth associated with station openings, Los Angeles area



NOTES: Size of circle reflects magnitude of employment change associated with station opening. The four sizes reflect employment changes of with magnitudes of less than 1 percent, 1–5 percent, 5–10 percent, and more than 10 percent. Blue circles are positive, and red circles are negative. Shaded circles indicate statistically significant relationships between employment change and station opening. Stations in existence before the period of study are shown with black dots.

**FIGURE 3**  
 Employment growth associated with station openings, Sacramento area



NOTES: Size of circle reflects magnitude of employment change associated with station opening. The four sizes reflect employment changes of with magnitudes of less than 1 percent, 1–5 percent, 5–10 percent, and more than 10 percent. Blue circles are positive, and red circles are negative. Shaded circles indicate statistically significant relationships between employment change and station opening. Stations in existence before the period of study are shown with black dots.

A more systematic approach to explaining these variations in employment growth is to extend the regression model to include variables that might affect the relationship between transit and employment growth. The Technical Appendix describes these statistical “interactions” and presents the details. The main findings are that employment growth associated with transit station opening tends to be higher when transit stations are:

1. surrounded by higher residential density;
2. surrounded by higher employment density;<sup>28</sup>
3. farther from an older transit station.

Other variables, like the distance from the transit station to the downtown or to the nearest highway and the stringency of local growth restrictions, did not affect the whether a new transit station was associated with faster employment growth.<sup>29</sup>

Just as transit station openings were not, on average, associated with faster employment growth overall, station openings were not associated with consistent employment growth patterns in specific industries. The composition of employment near transit stations differs from the composition of employment in the economy overall. Near transit stations, sectors like wholesale trade, finance, professional services, and government are disproportionately represented; personal services, retail, education, construction, and other industries that tend to serve consumers rather than business tend not to locate near transit stations.<sup>30</sup> But the industries that tend to be located near transit stations did not exhibit faster employment growth *associated with new transit stations opening*.

Our main finding, that there was no increase in employment growth associated with transit stations opening, runs counter to a goal of transit-oriented development. We also find that TOD strategies have been unsuccessful, on average, in promoting residential development, which is generally the focus of these strategies: in fact, residential growth appears to have been significantly *slower* in the areas around new transit stations than in comparison areas. However, the residential growth data are less frequent and less current than the employment growth data, so the residential growth results do not reflect before-and-after changes in the same way that the employment growth results do. We therefore emphasize the employment growth results.<sup>31</sup>

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<sup>28</sup> The relationship between employment growth and initial density was positive and statistically significant for only residential density, not employment density, for the one-quarter-mile circle around the transit station. In contrast, the relationship was positive and statistically significant for only employment density, not residential density, for the one-half-mile circle. For both the one-quarter- and one-half-mile circles around the transit station, the relationship between employment growth and employment density was approximately twice as large as the relationship between employment growth and residential density.

<sup>29</sup> Some of these factors did affect employment growth generally even if they did not affect the association between a transit station opening and *additional* employment growth. Employment in general grew faster in blockgroups closer to a freeway, closer to the CBD, and with less restrictive regulation, as well as in areas with lower residential density and lower employment density. See the “main effects” results from the interactive specification in the Technical Appendix. Tracts identified as the CBD of metropolitan areas are available from PPIC on request.

<sup>30</sup> Transit stations tend to be closer to the CBD, closer to highways, and in areas with higher employment density and lower population density, all else equal. These factors help explain the location of many industries, and adjusting for these factors, many of the differences in employment composition around transit stations are no longer statistically significant.

<sup>31</sup> The residential analysis is limited by the availability of Census population data, Census blockgroup population is available only for 1990 and 2000, whereas NETS employment data are available annually through 2006. The best one can do to assess residential growth is to compare population growth between 1990 and 2000 in areas where a transit station opened in that time period with population growth in comparison areas, controlling for the same variables as in the main analysis. Without annual population, one cannot compare population growth before and after the transit station opened using the same difference-in-differences framework. For example, if residential density declined between 1990 and 2000 around a station that opened in 1995, there is no way to tell whether that decline in residential occurred before or after the station opening in 1995.

## Why Isn't Employment Growth Faster Around Transit Stations?

The lack of additional job growth around many new transit stations represents a missed opportunity for raising employment densities, increasing transit ridership, and lowering VMT. But it is consistent with how local officials focus their TOD efforts: Among localities with existing or planned projects to increase density around transit stations, projects were much more likely to emphasize residential than commercial uses. Regional transportation agencies appear to have been assuming that localities need more encouragement to build housing in the right places. In contrast, jobs—in the words of one transportation planner—are believed to “take care of themselves.”<sup>32</sup>

These assumptions have probably taken root because land use policies in California have traditionally favored commercial (including industrial) development, both because these uses generate more local sales tax revenues and because it is generally believed that businesses require less expensive local public services than residents do (Boarnet and Crane 2001). Zoning practices reflect these assumptions: Land surrounding transit stations in Southern California in the mid-1990s was much more likely to be zoned for commercial/industrial use than for residential use, relative to other portions of the cities containing those transit stations (Boarnet and Crane 2001). More recently, a 2007 review of San Francisco Bay Area TOD policies reports that development goals for TODs include minimum density requirements for residential development but not for employment, in part because “cities already have considerable incentives to zone for non-residential uses, such as sales tax revenue and reduced fiscal impacts” (Nelson\Nygaard 2007, pp. 5–7).

But our evidence shows that employment growth around transit stations does *not* take care of itself, even if zoning around transit stations favors non-residential uses. Existing zoning that allows commercial or industrial use may not, by itself, be sufficient to spur employment growth; often, more explicit strategies to encourage commercial development are necessary. A set of case studies of San Diego stations concluded that TODs were most successful when they coincided with local authorities' development plans for the area (Boarnet and Crane 2001). A study of the Washington DC Metro found that dense development around new suburban stations hinged on the “determination and foresight” of local officials (Schrag 2006). The major Hollywood/Highland TOD illustrates the importance of authorities in regional transportation and local development working together, well beyond the creation of a favorable zoning plan.

Researchers and TOD advocates have identified specific policies to encourage development and transit ridership around transit stations. Parking policies are often recommended. For instance, relaxing requirements for developers to provide a minimum number of parking spaces in residential TODs could encourage denser residential development (Arrington and Cervero 2008). Similarly, restricting the availability or raising the cost of parking could encourage transit ridership (Giuliano and Agarwal 2010; Shoup 2004). Such policies would be a shift from current practice. Very few communities charge for parking anywhere, and nearly all require employers to provide parking in new commercial developments. Some communities are relaxing parking requirements for residential developments, consistent with the general tendency to integrate transportation policies more with residential land use than with commercial land use (Bedsworth, Hanak, and Stryjewski 2011).

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<sup>32</sup> Quote taken from interview with California transportation planner for companion paper, Bedsworth, Hanak, and Stryjewski (2011). They also report that over half (56%) of the communities with these projects reported that they were all or mostly residential, about a third (31%) were evenly split between residential and commercial, and 13 percent were mostly commercial.

Other land use policies, such as waiving floor-area-ratio and height restrictions and providing development incentives, can also encourage TOD (Giuliano and Agarwal 2010; Center for Transit-Oriented Development, 2008). Building a mix of TOD businesses, including retail and personal services that employees use during the day, encourages transit use by making it easier to run errands near the workplace (Center for Transit-Oriented Development, 2008). Bolstering connectivity—including local bus feeder service to transit stations and walkable, bikeable streets nearby—helps increase transit ridership around TODs and, in making the location more accessible, is likely to raise demand for the location (Center for Transit-Oriented Development 2008).

Despite these recommendations for making TOD more effective, reviews of TOD implementation suggest that the barriers to carrying them out are formidable. Some barriers to developing higher densities around transit stations are similar those faced by high-density development anywhere—these include challenges in demonstrating financial feasibility, organizational issues with transit and other public agencies, and local resistance to multi-family housing and dense infill development. But high-density development around transit stations also faces unique barriers, including parking, increased local traffic congestion, different goals of transit and development agencies, and challenges financing and designing mixed-use development (Cervero et al. 2004).

## Conclusion

California's ability to achieve VMT reductions through land use changes associated with transit investments is mixed. Residential density in California is above the U.S. average and rising. But employment density is below the U.S. average and falling—and employment density is more closely associated than residential density with transit ridership, meaning that California's job-related land use patterns are less conducive to economically feasible transit investments than land use patterns in other states.

With the exception of San Francisco and Sacramento, California's large and mid-size metropolitan areas have low employment density relative to their residential density. Among large metropolitan areas in California, Sacramento and the Inland Empire have the lowest transit ridership among commuters. The higher employment density of Sacramento suggests that transit has potential to gain ridership there, though the low employment density in the Inland Empire—combined with relatively low residential density—suggest that potential for fixed-line transit investment and ridership in the Inland Empire may be quite limited.

Strategies to encourage density in California must focus at least as much on employment density as on residential density. Our findings emphasize that employment density is more closely tied to transit ridership than residential density is. We also highlight the importance of proximity to transit stations: for ridership levels, proximity is even more important for workers than for residents.

California's recent transit investments have been in high-density areas, particularly in high employment-density areas: This is good. Furthermore, new transit stations have been located in areas that had faster employment growth before the opening of the station, relative to comparison areas (adjusting for factors like residential and employment density and distance to the downtown and highways). However, transit station openings were associated with no increase in employment growth; the faster employment growth in areas where transit stations later open would have happened even in the absence of the station opening.

Since coordinated land use/transportation plans have included transit-oriented development to tie growth to new transit investments, the lack of additional growth represents a missed opportunity for raising densities, increasing transit ridership, and lowering VMT. It does not appear that employment growth suffered from competition with residential growth: despite the traditional focus on housing in transit-oriented development, residential densities *fell* over the period when new transit stations opened, while employment densities held roughly constant.

Even though transit station openings were not associated with increases in employment growth on average, some individual transit stations were associated with faster employment growth after they opened. The variation in employment growth across transit stations follows some patterns: employment growth increased more around new transit stations with higher initial residential and employment density and around new transit stations farther from older transit stations. One possible explanation: areas with higher density have zoning in place—or lack local opposition—that supports further development. At the same time, these findings imply that employment growth around transit stations does not hinge on having lots of vacant land, since transit does not appear to boost employment growth significantly in relatively undeveloped areas.

We also found that stations in the same system, on the same line, or even next to each other sometimes exhibit quite different changes to employment growth. Conditions around the transit station, including local

zoning and other policies that could vary across stations, might therefore affect how much employment growth is associated with new transit stations.

It is surprising that, on average, employment growth around new transit stations was no faster than in comparison areas, which were selected because of their similarity in land uses, densities, and proximity to other transit stations and highways. It is especially surprising that even around lower-density primarily residential stations employment growth was, on average, no faster than it was in comparison areas, particularly because employment growth around stations in residential areas has additional benefits: increasing employment around stations that are largely suppliers of commuters toward downtown jobs can increase two-way utilization of costly rail capacity. Therefore, planners should aim to ensure that employment growth near stations, even those in residential areas, exceeds employment growth in nearby similar neighborhoods that lack transit access.

Researchers and practitioners point to parking, zoning, and urban design policies that could encourage development around new transit stations, as discussed above: these policies could provide encouragement to either residential or commercial development near transit. However, to encourage commercial development and employment growth specifically, existing zoning patterns and fiscal incentives—which traditionally favor commercial over residential development—have not been sufficient. Jobs do not, despite one planner’s claim, “take care of themselves.” Paradoxically, SB 375 could make employment growth around transit stations even more difficult to achieve because the law explicitly favors residential development in TODs: to receive exemptions from California Environmental Quality Act (CEQA) requirements, development projects near transit stations (called Transit Priority Projects) must be at least 50 percent residential, as measured by building square footage.<sup>33</sup> For California to reap the benefits that greater employment density around transit brings, the state should encourage commercial development relative to residential development near stations. Failing to take advantage of rail through more intense land development around stations is a significant missed opportunity to increase ridership and to make the most of costly transit investments.

Challenging as these TOD barriers are, questions about the ultimate impact of TOD on VMT reduction loom even larger. Even if land use policies and demand for space near transit were successful in raising densities near transit, the effect on regional VMT would likely be small. As noted above, three-quarters of workers within one-half mile of a transit station drive to work, most of them driving alone. Even within one-quarter-mile of a transit station—just a five-minute walk—only 10 percent of workers commute via fixed-line transit. Past transit investments in California have not gotten commuters out of their cars. Furthermore, commute trips account for only 27 percent of VMT, and trips for other purposes—school, social, personal business—are much less likely to occur on transit. Research examining transportation behaviors for metropolitan residents in aggregate, not just those near transit stations, concludes that transit investments have little impact on VMT, both because many new fixed-line transit commuters are former bus commuters, not former car commuters, and because transportation investments that initially might reduce congestion often induce additional driving.

And yet, integrating land use and transportation planning may contribute to GHG emissions reductions even in the absence of VMT reductions. If the planning encouraged by SB 375 succeeds in raising densities in California, emissions at the regional level could fall because higher-density residential units tend to be smaller and consume less energy. Furthermore, removing restrictions on residential or commercial

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<sup>33</sup> SB 375’s primary incentive to encourage localities to integrate their land use plans with regional transportation plans is exempting designated development projects from the CEQA environmental regulatory review process.

development would lower land prices and encourage population, economic activity, or both, to shift from other places to California, where the mild climate requires less energy for heating and cooling buildings. Within California, removing restrictions on development in milder coastal regions could shift some growth away from the inland areas with a more extreme climate, where California's fastest population growth is expected (Kolko, 2010). Faster growth in California relative to other parts of the United States, or in milder regions of California relative to inland areas, may not reduce GHG emissions per capita in any one region, and therefore might not meet the goals of SB 375. But shifting growth to lower-emissions-producing areas could reduce per-capita emissions at the national or state level.<sup>34</sup> SB 375 may contribute to emissions reductions, however inadvertently, beyond those related to VMT reductions.

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<sup>34</sup> And perhaps significantly. Glaeser and Kahn's (2010) estimates, reviewed above, show per-carbon household emissions as almost twice as high in some other parts of the United States than in some California regions.

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## About the Author

**Jed Kolko** is an associate director of research at the Public Policy Institute of California, responsible for managing the institute's economy research. He has conducted numerous studies of the California economy, economic development, housing, and technology policy. Prior to coming to PPIC in 2006, he was vice president and research director at Forrester Research, a technology consultancy, where he managed the company's consumer market research businesses and served as the lead researcher on consumer devices and access technologies. Jed has also worked at the Office of Federal Housing Enterprise Oversight, the World Bank, and the Progressive Policy Institute. He holds a Ph.D. in economics from Harvard University.

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I am very grateful to Marlon Boarnet, Robert Cervero, Ellen Hanak, Matthew Kahn, Alison Nemirow, Michael Teitz, Egon Terplan, and Lynette Ubois for reviewing earlier versions of this paper; to Madelyn Glickfeld and Ned Levine for sharing their 1992 growth control survey data; and to Louise Bedsworth, Mike Duncan, Paul Lewis, Sujata Srivastava, Elizabeth Stryjewski, and Jeff Wood for suggestions, feedback, and additional data. I also benefited from comments from Elisa Barbour, Hans Johnson, Dean Misczynski, Eliot Rose, Maggie Witt, and many of the above reviewers on a companion report, *Driving Change: Reducing Vehicle Miles Traveled in California*, which incorporates many of the findings presented here. I alone am responsible for any errors in fact or interpretation.

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**SAN ANTONIO PRECISE PLAN UPDATE  
BICYCLE/PEDESTRIAN ADVISORY COMMITTEE FEEDBACK  
SEPTEMBER 26, 2013**

San Antonio Center

- San Antonio Center is currently a barrier to bike/pedestrian connectivity. Improved connections into and through the Center is vital to encourage alternatives to driving;
- Supported San Antonio visioning process and existing precise plan concepts to break up big blocks with major north/south and east/west connections;
- Study options to provide diagonal connectivity through the Center;
- In general, bicycle, pedestrian and vehicle improvements should be separated;
- Supported pedestrian facilities at all driveway entrances and along all interior roadways to signify importance of pedestrian travel;
- Supported dedicated bicycle improvements, not just shared roadways;
- Study ways to create closer pedestrian connections between different areas of the Centers, to encourage people to park once and walk to different destinations;
- Improve pedestrian and bicycle pathway lighting and visible bike parking;
- Hetch Hetchy alignment is a big opportunity for a new bike/pedestrian "avenue;"

Area-wide Connectivity

- The area is currently automobile-focused. Strong bicycle and pedestrian improvements are needed area-wide to provide obvious cues that this is a location where bike and pedestrian travel is supported and encouraged;
- Supported facilities to address the needs of children and the visually-impaired;
- Supported strong bicycle and pedestrian routes to transit stations (Caltrain and VTA), including within San Antonio Center, and to nearby schools in Mountain View and Los Altos;
- Supported protected/buffered bike facilities, where feasible and appropriate;

- Study all options to coordinate bicycle and pedestrian connectivity with improvements in Palo Alto and Los Altos;
- Consider intersection scrambles for bikes and pedestrians;
- Identified several specific mobility improvements to study, including:
  - Latham Street as a bike boulevard. (Suggested studying the Bryant Street bike boulevard in Palo Alto for examples of more robust improvements);
  - A grade-separated crossing of Central Expressway. At minimum, suggested improving the existing bike/pedestrian tunnel under the train tracks;
  - Connecting the missing pedestrian link between Showers Drive and Del Medio Avenue to provide an alternative connection to the Caltrain Station;
  - Narrowing Showers Drive for improves bike/pedestrian facilities and crossings;
  - San Antonio Road bike lanes and green bike lanes, where appropriate;
  - New or improved crossings including at Latham Street/Showers Drive, on Showers Drive between Latham and California Streets, and at Pacchetti Drive/California Street;

#### Urban Design and Pedestrian Experience

- Provide wide, separated sidewalks with landscaping to create shade and noise protection and improve the pedestrian experience;
- Supported tree wells versus continuous landscape strips to provide space so street furnishings and utilities that don't obstruct walking paths;
- Preferred buildings over surface parking along street frontages;
- Suggested new (especially taller) buildings, not be too close to sidewalks;
- Discourage barriers to access - e.g. fences with locked gates;
- Use great examples and best practices from elsewhere, including other places in Mountain View and neighbors in Palo Alto for things like lighting, bus shelters, etc.
- Include the right mix of uses/businesses to help encourage bike and pedestrian travel and create an inviting area to shop and congregate;
- Overall flow is important. In key areas, interaction between modes should be allowed because sometimes signals create rather than resolve conflicts, but be cautious with mid-block, unsignalized crossings.

Seven members of the public spoke at the meeting. Comments included implementing a new street grid in San Antonio Center; designing new improvements for a wide range of users including children and the visually-impaired; using multimodal performance standards to grade bicycle and pedestrian facilities; improving connections to transit stations and schools; how new street standards could allow major streets to move large numbers of cars and provide a great multimodal experience, using recent technical guidebook examples; supporting the Hetch Hetchy alignment as a bike and pedestrian connection; and suggestions for several improvements not specifically noted by the B/PAC such as a grade-separated bike/pedestrian crossing of San Antonio Road and demolishing the freeway-style interchange of San Antonio Road/Central Expressway.

Additional public comment was sent by email in advance of the meeting and is enclosed herein.

**Simas, Linda**

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**From:** Kim, Helen  
**Sent:** Thursday, September 26, 2013 3:16 PM  
**To:** [REDACTED]  
**Cc:** Solomon, Jacqueline; Forsberg, Linda; Fakhry, Sayed; Gilli, Peter; Shapiro, Rebecca; Anderson, Eric - Planning  
**Subject:** 9/26/13 B/PAC public comment\_PMP, SA PP & ECR PP

Dear B/PAC Members -- FYI, public comment for the September 26, 2013 B/PAC Special Meeting regarding the pedestrian master plan and the two precise plans (San Antonio and El Camino Real).

Helen

**From:** Thida Cornes [REDACTED]  
**Sent:** Thursday, September 26, 2013 3:13 PM  
**To:** BPAC Communication  
**Subject:** Comments on tonight's meeting

The Pedestrian Master Plan now has measurable performance metrics but still no measurable goals. The goals are "increasing rate" rather than an actual number or percentage. I'd like to see actual an actual number or percentage such as 25% kids walk or bike to school.

My thoughts on the Precise Plans are:

- 1) I favor bicycle improvements paired with pedestrian improvements rather than along vehicle roadways. The vehicle traffic on most MV roadways is 30mph or higher. Only experienced adult bicyclists can safely ride on a roadway with vehicles at this speed. If we want more kids to ride, we need bicycle paths with lower traffic. The big caveat is that there needs to be clear separation between pedestrians (e.g sidewalk) and bicyclists (bike path)
- 2) The Precise Plans need to focus bicycle improvements that are on interior streets such as Latham instead of its current focus on major arterial roads such as San Antonio. The current bike network may work great for adults who want to bike fast to work but it doesn't help kids for the same reasons above.
- 3) The Precise Plans need to provide options for pedestrian improvements on all interior streets and not just a few priority areas where walking is encouraged. We live in a city where some of our poorest residents live on the busiest streets. The Precise Plan is about long-term development so can happen as developments arise. If pedestrian improvements are needed outside the development process, the city can use the CIP process to make those improvements.

Best,  
 Thida

**Simas, Linda**

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**From:** Kim, Helen  
**Sent:** Wednesday, September 25, 2013 6:12 PM  
**To:** Gilli, Peter; Shapiro, Rebecca; Anderson, Eric - Planning  
**Cc:** Solomon, Jacqueline; Forsberg, Linda; Fakhry, Sayed  
**Subject:** 9-26-13 B/PAC SA Precise Plan: Public Input (Greater SA Community Assoc)

FYI, public comment for the September 26, 2013 B/PAC Special Meeting regarding the San Antonio Precise Plan.

Helen

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**From:** Nancy Morimoto [REDACTED]  
**Sent:** Wednesday, September 25, 2013 5:32 PM  
**To:** BPAC Communication; [REDACTED]  
**Subject:** Input regarding San Antonio Precise Plan



*neighbors working together to  
create quality community*

Dear Members of the Bike and Pedestrian Advisory Committee,

The members of our new (one year old) neighborhood association have created a vision for the area that is in line with the goals of the General Plan. It includes five principles that we would like to see enhanced in the area- connectivity, diversity, livability, community and sustainability. A pleasant and safe walking and biking experience is a key to promoting this vision.

We would like to see protected bike lanes on major arteries like San Antonio Road and El Camino. These are the ones with a green surface and a small curb. Also, California Street and Showers Drive need bike lanes. There should be designated bike parking in certain on-street parking spots, and racks in the parking garage(s) as well. All of these ideas have been implemented in downtown Palo Alto.

Sidewalks need to be very wide and the crosswalks safe. Many of us learned of "scrambled crosswalks" at the San Antonio Visioning workshops last fall. This is where all traffic is stopped and pedestrians could walk in any direction, including diagonally at the same time. This could be a possibility at San Antonio and El Camino. Also, a mid-block crossing on California between Paccetti and San Antonio would break up the long block and encourage safe street crossing habits.

Please also encourage the precise plans to be very generous when calling for tree canopy and plantings, as to make this area inviting for those not traveling inside vehicles.



## MINUTES

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SPECIAL MEETING - MONDAY, SEPTEMBER 16, 2013  
SENIOR CENTER - 266 ESCUELA AVENUE  
6:00 P.M. – STUDY SESSION  
CLOSED SESSION IMMEDIATELY FOLLOWING THE STUDY SESSION

### 6:00 P.M. – STUDY SESSION (HELD IN THE SOCIAL HALL)

#### 1. CALL TO ORDER

Mayor Inks called the meeting to order at 6:02 p.m.

2. **ROLL CALL** – Councilmembers Abe-Koga (arrived at 6:22 p.m.), Bryant, Kasperzak, McAlister (arrived at 6:06 p.m.), Siegel, Vice Mayor Clark, and Mayor Inks were present.

#### 3. ORAL COMMUNICATIONS FROM THE PUBLIC ON NONAGENDIZED ITEMS

Don Bahl presented Council with a copy of a flyer from Carpenter’s Union Local 751 regarding a Merlone-Geier project in Petaluma, which was distributed at the Mountain View Merlone-Geier Phase I project, and he expressed concerns that this was being done to pressure Merlone-Geier into a union contract.

Jim Neal expressed concerns regarding information he read in an article in the *Mountain View Voice* regarding an eight-story development project in the North Bayshore area.

An unidentifiable woman expressed appreciation for the “Ask Mountain View” on-line community assistance program.

Bella Awdisho, owner of Cucina Venti, expressed concerns with Google’s free food policy for employees and how it impacts her restaurant and other restaurants in the North Bayshore area.

Karen deMoor, owner of the Center of Balance, expressed concerns with the effects of future development in North Bayshore area on small businesses, and requested that Council ensure any development include enough mixed-used and affordable space with plenty of parking.

An unidentifiable man expressed concerns with Google's free food policy for employees, and how it impacts restaurants in the North Bayshore area.

**4. STUDY SESSION**

**4.1 NORTH BAYSHORE DISTRICT SUSTAINABILITY WORKSHOP**

Community Development Director Tsuda, Eco Districts Program Director Adam Beck and Raimi + Associates Principal Matt Raimi presented oral reports and responded to Council's questions.

**SPEAKING FROM THE FLOOR EXPRESSING CONCERNS AND/OR WITH RECOMMENDATIONS:**

Jim Neal  
Barbara Goodwin  
Unidentifiable woman  
Patrick Moore  
Linda Curtis  
Marni  
Gita Dev, representing the Sierra Club  
Shani Kleinhaus, Santa Clara County Audubon Society Environmental Advocate

The Study Session concluded at 8:25 p.m.

**5. CLOSED SESSION (HELD IN THE MEETING ROOM)**

**5.1 CLOSED SESSION ANNOUNCEMENT (OPEN SESSION)**

At 8:37 p.m., an announcement was made by City Attorney Quinn, who described the item that Council would consider on the Closed Session agenda below.

5.2 **Public Employee Performance Evaluations (§54957(b)(1))** – Title: Council Appointees: City Manager, City Clerk, and City Attorney; **Conference with Labor Negotiators (§54957.6(a))** – Agency Designated Representative: Vice Mayor Clark; Unrepresented Employees: City Manager, City Clerk, and City Attorney

Mayor Inks called the meeting to order at 8:43 p.m. All councilmembers were present.

6. **CLOSED SESSION REPORT (OPEN SESSION)** - None.

7. **ADJOURNMENT**

At 10:00 p.m., Mayor Inks adjourned the meeting to the next Special Council Meeting to be held on Tuesday, September 17, 2013, at 5:00 p.m. in the Council Chambers, 500 Castro Street.

ATTEST:

APPROVED:

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LORRIE BREWER, MMC  
CITY CLERK

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JOHN INKS  
MAYOR



## MINUTES

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SPECIAL MEETING - TUESDAY, SEPTEMBER 17, 2013  
COUNCIL CHAMBERS AT CITY HALL - 500 CASTRO STREET  
5:00 P.M. – STUDY SESSION  
7:00 P.M. – REGULAR SESSION

### 5:00 P.M. – STUDY SESSION

#### 1. CALL TO ORDER

Mayor Inks called the meeting to order at 5:00 p.m.

#### 2. ROLL CALL – Councilmembers Abe-Koga, Bryant, McAlister, Siegel, Vice Mayor Clark, and Mayor Inks were present.

Councilmember Kasperzak was absent.

#### 3. STUDY SESSION

##### 3.1 UPDATE ON ANIMAL ORDINANCE AMENDMENTS

Police Captain Bosel and Assistant City Attorney Dobson presented oral staff reports and they, City Attorney Quinn and City Manager Rich, responded to Council's questions.

SPEAKING FROM THE FLOOR EXPRESSING CONCERNS AND/OR WITH RECOMMENDATIONS:

David Lewis  
Christina Peck  
Paul Reynolds  
Jim Neal  
Denise Pinto  
Suzette Spencer

The Study Session concluded at 6:25 p.m.

**7:00 P.M. – REGULAR SESSION**

**1. CALL TO ORDER**

Mayor Inks called the meeting to order at 7:00 p.m.

**2. PLEDGE OF ALLEGIANCE**

Mayor Inks led the Pledge of Allegiance

**3. ROLL CALL –** Councilmembers Abe-Koga, Bryant, McAlister, Siegel, Vice Mayor Clark, and Mayor Inks were present.

Councilmember Kasperzak was absent.

**4. CONSENT CALENDAR**

The reading of the full text of the ordinance for Item 6.1 was waived by unanimous consent of the Council.

**4.1 APPROVAL OF MINUTES –** Approve minutes for the City Council Special Meeting of September 3, 2013.

**Motion** - M/S Siegel/ Abe-Koga - Carried 6-0-1; Councilmember Kasperzak absent - To approve the Consent Calendar.

**5. ORAL COMMUNICATIONS FROM THE PUBLIC ON NONAGENDIZED ITEMS**

Don Bahl expressed concerns with Carpenters Local 751 displaying signs and distributing fliers at Merlone Geier's Phase I project.

Don Letcher expressed concerns with Council's spending with regard to hiring new employees, consultants and surveys.

Linda Curtis expressed concerns with the potential narrowing of Castro Street, and she presented other traffic solutions.

## 6. PUBLIC HEARING

### 6.1 ORDINANCE TO AMEND CHAPTER 35, ARTICLES I, II, AND III, OF THE CITY CODE

Mayor Inks opened the Public Hearing at 7:11 p.m.

Public Works Director Fuller and Assistant Public Works Director Hosfeldt presented oral staff reports and they, and City Attorney Quinn, responded to Council's question.

SPEAKING FROM THE FLOOR IN OPPOSITION TO THE ORDINANCE:

Don Bahl

Mayor Inks closed the Public Hearing at 7:18 p.m.

**Motion** - M/S Abe-Koga/Bryant - Carried 4-2-1: Councilmember Siegel, Mayor Inks no; Councilmember Kasperzak absent - To introduce AN ORDINANCE AMENDING ARTICLES I, II, AND III OF CHAPTER 35 OF THE MOUNTAIN VIEW CITY CODE, RELATING TO WATER, SEWAGE, AND OTHER MUNICIPAL SERVICES, to be read in title only, further reading waived, and set the second reading for September 24, 2013 (Attachment 1 to the Council report).

## 7. NEW BUSINESS

### 7.1 GATEKEEPER

Acting Planning Manager/Zoning Administrator Gilli presented an oral staff report and he, Community Development Director Tsuda, City Attorney Quinn and City Manager Rich, responded to Council's questions.

1. Authorize the assignment of staff resources for consideration of a Precise Plan Amendment to the P(31) Mora-Ortega Precise Plan to extend the amortization period for an additional 18 months.

Mayor Inks recused himself from acting on this item and left the dais.

SPEAKING FROM THE FLOOR IN SUPPORT OF THE PROJECT:

Martin Chiechi, Cornish & Carey Commercial Senior Vice President.  
Doug Rich, Lennar Homes Vice President of Finance.

Mr. Chiechi and Mr. Rich also responded to Council's questions.

**Motion** – M/S Bryant/Abe-Koga – Carried 5-0-1-1; Mayor Inks recused; Councilmember Kasperzak absent – To authorize the assignment of staff resources for consideration of a Precise Plan Amendment to the P(31) Mora-Ortega Precise Plan to extend the amortization period for an additional 18 months

2. Authorize the assignment of staff resources for consideration of a rezoning and General Plan Land Use Map Amendment for 0.1 acre related to the 1101 El Camino Real West residential condominium project.

Councilmember McAlister recused himself from acting on this item and left the dais.

SPEAKING FROM THE FLOOR IN SUPPORT OF THE PROJECT:

Dave Hopkins, Sares-Regis Group Vice President

SPEAKING FROM THE FLOOR EXPRESSING CONCERNS WITH THE PROJECT:

Linda Curtis  
Jim Neal

**Motion** – M/S Clark/Abe-Koga – Carried 4-1-1-1; Councilmember Siegel No; Councilmember McAlister recused; Councilmember Kasperzak absent – To authorize the assignment of staff resources for consideration of a rezoning and General Plan Land Use Map Amendment for 0.1 acre related to the 1101 El Camino Real West residential condominium project.

3. Authorize the assignment of staff resources under certain conditions for consideration of a Master Plan and development proposal for a new theater, fitness center, hotel, and office project on 15.5 acres.

SPEAKING FROM THE FLOOR IN SUPPORT OF THE PROJECT:

Elizabeth Puccinelli, Syufy Enterprises Senior Vice President  
Ms. Puccinelli also responded to Council's questions.  
Fred Lester  
Jim Pollart

SPEAKING FROM THE FLOOR EXPRESSING CONCERNS WITH THE PROJECT:

Jim Neal  
Margaret Capriles  
Don Bahl  
Linda Curtis

**Motion** - M/S Bryant/Siegel - Failed 3-3-1; Councilmember Abe-Koga, Vice Mayor Clark, Mayor Inks no; Councilmember Kasperzak absent - To deny the gatekeeper project.

**Motion** - Clark/ Abe-Koga - Failed 2-4-1; Councilmembers Bryant, McAlister, Siegel, Mayor Inks no; Councilmember Kasperzak absent - To Authorize the assignment of staff resources under certain conditions for consideration of a Master Plan and development proposal for a new theater, fitness center, hotel, and office project on 15.5 acres.

7.2 **WORK PLAN FOR HISTORIC ORDINANCE AMENDMENTS**

Senior Planner Williams presented an oral staff report and she, Acting Planning Manager/Zoning Administrator Gilli, Community Development Director Tsuda, City Attorney Quinn and City Manager Rich, responded to Council's questions.

SPEAKING FROM THE FLOOR EXPRESSING CONCERNS:

Tracy Chu  
Suzette Spencer

**Motion** - M/S Clark/Siegel - Carried 6-0-1; Councilmember Kasperzak absent - To approve the work plan to revise the Historic Ordinance and Local Register based on the *Valley Advocates v. City of Fresno* court case. The decision of this court case has significantly impacted the application of the City's Historic Preservation Ordinance and places additional requirements on owners of potentially historic homes who are currently not eligible for the benefits provided by the City for historic properties.

8. **COUNCIL, STAFF/COMMITTEE REPORTS**

Mayor Inks presented a report on the visit from the Guangzhou, China delegation.

9. **CLOSED SESSION REPORT** - None.

10. **ADJOURNMENT**

At 10:22 p.m., Mayor Inks adjourned the meeting to the next Regular Council Meeting to be held on Tuesday, September 24, 2013, at 6:30 p.m. in the Council Chambers, 500 Castro Street.

ATTEST:

APPROVED:

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LORRIE BREWER, MMC  
CITY CLERK

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JOHN M. INKS  
MAYOR



**DATE:** October 8, 2013

**CATEGORY:** Consent

**DEPT.:** Public Works

**TITLE:** **Mountain View Los Altos High School District – Sanitary Sewer Services Agreement**

### **RECOMMENDATION**

Adopt A RESOLUTION AUTHORIZING THE CITY MANAGER OR HIS DESIGNEE TO EXECUTE AN AGREEMENT WITH THE MOUNTAIN VIEW LOS ALTOS HIGH SCHOOL DISTRICT TO PROVIDE SANITARY SEWER SERVICES TO LOS ALTOS HIGH SCHOOL, to be read in title only, further reading waived (Attachment 1 to the Council report).

### **BACKGROUND**

The City of Mountain View operates and maintains a sanitary sewer (wastewater collection) system, providing service to approximately 17,600 business and residential customers within the City's limits. Wastewater collected in the City's system is transmitted to the Palo Alto Regional Water Quality Control Plant (PARWQCP) for treatment.

In addition to providing sewer services to customers located within Mountain View, the City also accepts wastewater from Los Altos High School of the Mountain View Los Altos High School District (MVLAHSD) located southwest of the City limits. The City has been accepting wastewater from Los Altos High School since the early 1950s. The City's sewer services agreement lapsed many years ago.

### **ANALYSIS**

Staff is seeking Council authorization to negotiate and enter into a new sanitary sewer services agreement with MVLAHSD. The resolution (see Attachment 1) will authorize the City Manager or his designee to enter into the new sanitary sewer services agreement. Section 35.30 of the Mountain View City Code requires Council authorization, by resolution, for sanitary sewer services to be provided to customers

outside of the City's corporate limits. Other current service outside the City includes NASA Ames.

Under the previous agreement, MVLAHSD was paying a flat per-pupil charge. Now they are currently paying, and will continue to pay, the regular commercial wastewater rate (which is significantly higher than the per-pupil charge).

The initial term of the new agreement will be through 2020, with five-year extensions through 2035 when the City's current agreement with the PARWQCP ends. The agreement will also include a one-year termination notice requirement. Los Altos High School has no immediate access to other wastewater collection systems or sources of wastewater treatment, and will have to undertake a lengthy and expensive process to identify and secure alternative sewer services if service from Mountain View is terminated.

There would be no other changes to the sewer services the City has been providing to Los Altos High School. MVLAHSD will continue to be charged for the sewer services it receives based on the City's existing rate structure and those revenues will be used to fund sanitary sewer and stormwater system costs, as are revenues generated from all other wastewater customers within Mountain View.

The City and the PARWQCP both have adequate capacity to transport and treat Los Altos High School wastewater flows during the proposed term of the new agreement (through 2035).

### **FISCAL IMPACT**

None. MVLAHSD will continue to pay for the sewer services provided by the City at the City's current utility rates. Executing a new agreement will ensure the City is recovering the cost of providing sewer service to Los Altos High School.

### **ALTERNATIVES**

Do not approve the resolution to execute a new sanitary sewer services agreement with MVLAHSD. Los Altos High School would be required to identify and secure alternate sources for the collection and treatment of its wastewater.

**PUBLIC NOTICING** – Agenda posting.

Prepared by:

Gregg A. Hosfeldt  
Assistant Public Works Director

Approved by:

Michael A. Fuller  
Public Works Director

Daniel H. Rich  
City Manager

GAH/9/CAM  
761-10-08-13CR-E

Attachment: 1. Resolution – Mountain View Los Altos High School District Sewer Service

cc: MVLAHSD, FASD

CITY OF MOUNTAIN VIEW  
RESOLUTION NO.  
SERIES 2013

A RESOLUTION AUTHORIZING THE CITY MANAGER OR HIS DESIGNEE  
TO EXECUTE AN AGREEMENT WITH THE MOUNTAIN VIEW  
LOS ALTOS HIGH SCHOOL DISTRICT TO PROVIDE  
SANITARY SEWER SERVICES TO LOS ALTOS HIGH SCHOOL

WHEREAS, the City of Mountain View ("City") provides sanitary sewer services to business and residential customers within the City limits, and has the capability of providing service to certain customers outside the City limits; and

WHEREAS, Los Altos High School of the Mountain View Los Alto High School District, located at 201 Almond Avenue in Los Altos, southwest of the City limits of Mountain View, routes wastewater to the sanitary sewer system operated by the City of Mountain View; and

WHEREAS, there is no current agreement between the City and the Mountain View Los Alto High School District for sanitary sewer services at Los Altos High School; and

WHEREAS, City Code Section 35.30 requires the Council to authorize, by resolution, the City to provide sanitary sewer services to customers outside of the corporate limits of the City;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL, AS FOLLOWS:

The City Council hereby authorizes the City Manager or his designee to execute an agreement to provide sanitary sewer services to the Mountain View Los Altos High School District for services to Los Altos High School.

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**DATE:** October 8, 2013

**CATEGORY:** Consent

**DEPT.:** Community Development

**TITLE:** **Greater Opportunities Loan Repayment Options**

### **RECOMMENDATION**

Authorize Greater Opportunities loan repayment based on an appraised property value of \$600,000 and extend the existing use restriction to 2025 for recordation on title of the property.

### **BACKGROUND**

In 1988, the City provided a \$50,000 Community Development Block Grant (CDBG) loan to Greater Opportunities (formerly known as the Mountain View Center for Independent Living) to purchase a six-unit rental complex in Sunnyvale to serve very low-income, developmentally disabled adults. The City's loan provisions stated that the loan be deferred with no payment due until or unless the property was sold or the use changed. Mountain View's Agreement and Promissory Note did not state a term end date, but upon sale or change of use, the City would be repaid the greater of \$50,000 or 11 percent of the fair-market value. The City's CDBG funding was provided along with CDBG funding from the City of Sunnyvale which had similar deferment and repayment provisions. Neither Sunnyvale's nor Mountain View's restrictions were recorded on title of the property when the loans were issued.

Greater Opportunities is seeking to repay its CDBG loan obligations from other cities and also contacted Mountain View staff concerning our CDBG loan balance. It was challenging to determine the amount due since the Agreement and Promissory Note did not have an end date. These types of agreements were common 15 to 20 years ago when there were fewer agreement requirements for the CDBG and HOME funds. Two appraisals were prepared: one with the City's use restriction ending in 2025 and another with the restriction ending in 2018. The 2025 end date is consistent with Sunnyvale's affordability and use restriction that remains in effect until 2025. An alternative date of 2018 was also used based on the City's loan being repaid in 2013 and

Mountain View's affordability and use restriction ending in 2018.<sup>1</sup> Either of these end dates, 2025 or 2018, could be used for the appraisal.

The appraised value, assuming a 2018 term end date, was \$976,000. The appraised value using a 2025 end date was \$600,000, a difference of \$376,000 because of the additional seven-year restriction. Both values include a deduction of \$24,000 for deferred maintenance items. The \$376,000 difference in market value results in a \$41,360 potential increase to the loan repayment amount, which would be \$66,000 with the 2025 end date or \$107,360 if the 2018 end date is applied. Greater Opportunities staff stated that the \$41,360 increase would pose a hardship since the agency needs the funds to pay for services and capital maintenance needs.

### ANALYSIS

City staff recommends using the appraised value with the 2025 end date since Sunnyvale's affordability and use restriction will remain on the property until 2025. This would require that Greater Opportunities repay \$66,000, which is 11 percent of \$600,000. The \$66,000 repayment is still more than the City's original \$50,000 loan. As part of this loan repayment, the City would require that an affordability and use restriction be recorded on title of the property. This would assure affordability until 2025, consistent with Sunnyvale's requirement.

The City's initial loan provisions, which included deferred repayment, has helped fund needed services and keep rents affordable. Greater Opportunities stated that it does not intend to sell or transfer the property or change the use but does not want to accrue a significantly higher loan balance. The loan balance is directly tied to the property's value, which has steadily increased in recent years. Greater Opportunities would like to repay the loans on the property now, so it can later leverage it to fund additional housing opportunities.

Federal regulations allow 15 percent of CDBG loan repayments (called program income) to be used toward public services in the following fiscal year. The CDBG allocation has declined significantly in the past five years, so Greater Opportunities loan repayment will be used to help offset anticipated funding reductions in Fiscal Year 2014-15. There may be enough to also fund the two new agencies (Silicon Valley Independent Living Center and Vista) that were approved in the two-year Fiscal Year 2013-14 public service agency funding cycle contingent on the receipt of program income in excess of the amount needed to offset funding reductions.

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<sup>1</sup> Federal regulations require the use to remain in place for a period of five years after the repayment of a CDBG loan.

**FISCAL IMPACT**

Greater Opportunities loan repayment would not impact the General Fund. The CDBG loan repayment, whether based on the \$600,000 or the \$976,000 appraised value, would be reprogrammed to other eligible uses in the Fiscal Year 2014-15 funding cycle.

**ALTERNATIVES**

1. Require Greater Opportunities to repay \$107,360, which is 11 percent of the \$976,000 appraised value. The City would get an increase of \$41,360 in program income.
2. Provide other direction to staff.

**PUBLIC NOTICING**

Agenda posting and a copy of report to the Greater Opportunities Executive Director.

Prepared by:

Regina Adams  
Senior Planner

Reviewed by:

Linda Lauzze  
Administrative and Neighborhood  
Services Manager

Approved by:

Randal Tsuda  
Community Development Director

Daniel H. Rich  
City Manager

RA/7/CAM  
893-10-08-13CR-E



**DATE:** October 8, 2013

**CATEGORY:** Consent

**DEPT.:** Public Works

**TITLE:** **Shoreline Boulevard Storm Drain Improvements, Project 10-40 – Reject All Bids**

### **RECOMMENDATION**

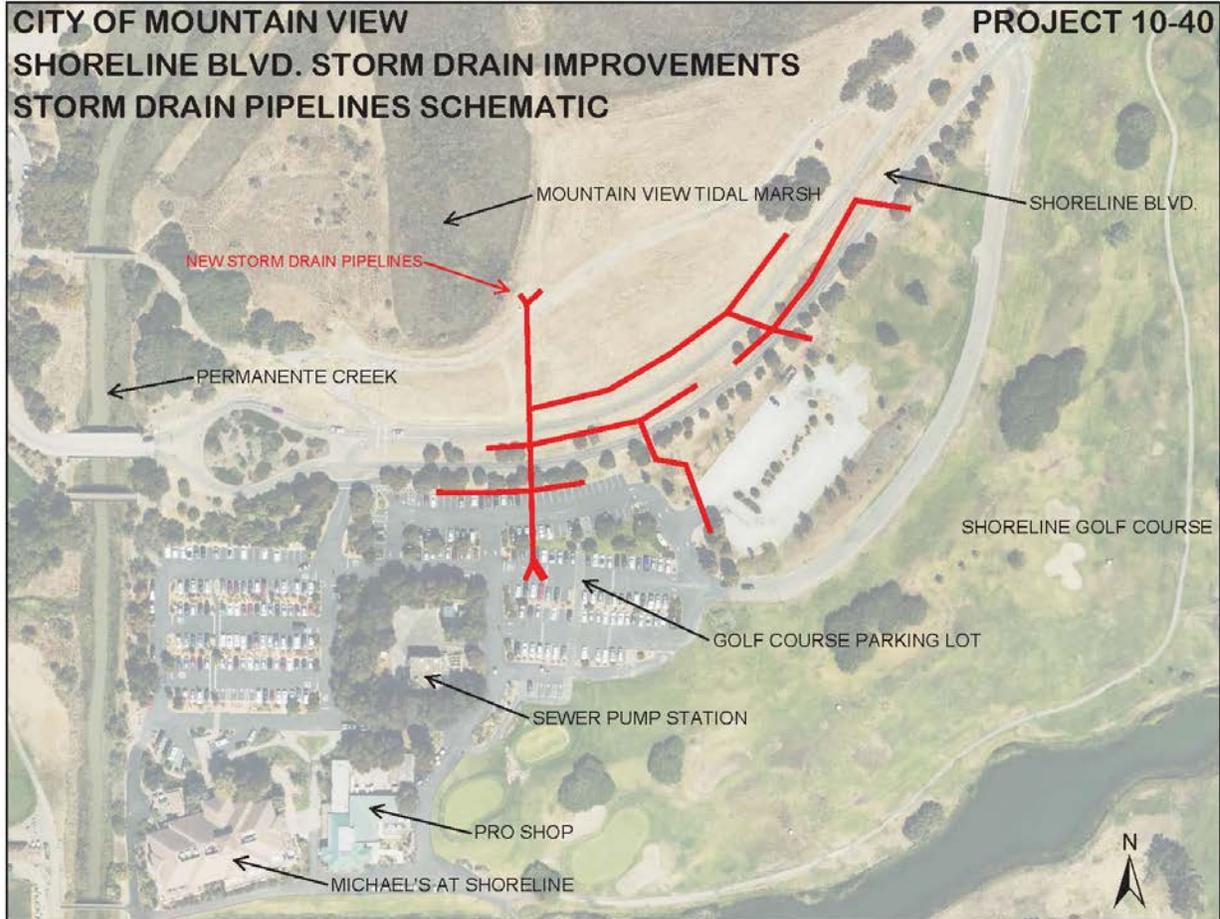
1. Reject all bids for Shoreline Boulevard Storm Drain Improvements, Project 10-40, and authorize staff to readvertise the project for bids.
2. Authorize the City Manager to award the construction contract to the lowest responsible bidder if the low bid is within the project budget when rebid.

### **BACKGROUND**

The storm drainage system near Michaels and the adjacent golf course parking lots on Shoreline Boulevard at Shoreline at Mountain View Park were constructed in the late 1970s. With settlement of the refuse under the storm drain system, the pipes are damaged and some no longer slope in the proper direction. Ponding water results, which is not allowed under State regulations for closed landfills.

The Shoreline Boulevard Storm Drain Improvements, Project 10-40, proposes to replace the storm drain system and regrade the ground surface to re-establish drainage (see Exhibit A below for the project location). On July 2, 2013, the City Council approved plans and specifications for the project and authorized staff to advertise the project for bids.

**Exhibit A – Location of Storm Drain Improvements on Shoreline Boulevard**



**ANALYSIS**

Four bids were received on August 20, 2013, ranging from \$622,870 to \$894,734. The construction budget is \$660,000. While the low bid was within budget, the low bidder, D&D Pipelines of San Francisco, requested to be relieved from their bid due to a clerical error in the cost estimate calculation. The State Public Contracts Code provides that an agency shall relieve a bidder from the bid if the bidder provides evidence of a clerical error. Staff reviewed and granted the request.

Because the second low bid exceeds the project budget, staff recommends that Council reject bids and authorize staff to rebid the project. Staff reviewed the plans for value engineering opportunities to bring the project within budget and believes that costs can be reduced with some refinements to the design to replace new pipelines with surface

grading. The most critical areas would still be replaced and the system will work satisfactorily. Because the project is in an area of historic owl nesting activity, restrictions in the specifications related to owl protection also likely affected the bids. If the recommended actions are approved, staff will likely rebid the project in spring 2014, with construction beginning in late summer to avoid burrowing owl breeding season and summer high-park-use periods at Shoreline. This schedule change will also likely improve bids.

### **FISCAL IMPACT**

The Shoreline Boulevard Storm Drain Improvements, Project 10-40, is funded with \$887,000 from the Shoreline Regional Park Community Fund. Rebidding the project will cost approximately \$10,000 to update and reprint the plans and specifications. Staff believes that changes in the project schedule and scope can bring the project within budget, so no additional funding is requested at this time.

### **ALTERNATIVES**

Award the contract to the second low bidder, Platinum Pipeline, Inc., with a bid of \$852,830. The project cost would be \$1,137,000 and additional funding of \$250,000 would be required. The available balance of the Shoreline Community Fund, as of June 30, 2013, is \$42.7 million. However, based on the 10-year forecast presented to Council in the Narrative Budget Report last spring, this balance is projected to be \$16.6 million by the end of Fiscal Year 2022-23 due to obligations of the fund.

**PUBLIC NOTICING** – Agenda posting.

Prepared by:

Raymond Wong  
Senior Project Manager

Approved by:

Michael A. Fuller  
Public Works Director

Daniel H. Rich  
City Manager

RW/LA/7/CAM/911-10-08-13CR-E

cc: APWD – Solomon, PCE – Au, AS/RM, SCE – Wong



**DATE:** October 8, 2013

**CATEGORY:** Public Hearing

**DEPT.:** Fire/Community Development

**TITLE:** **Amend Chapters 8, 14, and 24 of the City Code and Adopt the 2013 California and 2012 International Codes, Incorporating by Reference Other Uniform Codes**

## **RECOMMENDATION**

1. Introduce AN ORDINANCE AMENDING CHAPTER 8, ARTICLES I, II, III, IV, AND V, OF THE MOUNTAIN VIEW CITY CODE, RELATING TO THE ADOPTION OF THE 2013 CALIFORNIA BUILDING CODES, INCORPORATING BY REFERENCE OTHER INTERNATIONAL AND UNIFORM CODES, AND ADOPTION OF THE 2012 INTERNATIONAL PROPERTY MAINTENANCE CODE (Attachment 1 to the Council report), to be read in title only, further reading waived, and set second reading for October 22, 2013.
2. Introduce AN ORDINANCE AMENDING CHAPTER 14, ARTICLES I, II, AND III, OF THE MOUNTAIN VIEW CITY CODE, RELATING TO THE ADOPTION OF THE 2012 INTERNATIONAL FIRE CODE, INCORPORATING BY REFERENCE THE AMENDMENTS ADOPTED BY THE STATE OF CALIFORNIA TO ESTABLISH THE 2013 CALIFORNIA FIRE CODE (Attachment 2 to the Council report), to be read in title only, further reading waived, and set second reading for October 22, 2013.
3. Introduce AN ORDINANCE AMENDING ARTICLES I AND II OF CHAPTER 24 OF THE MOUNTAIN VIEW CITY CODE, RELATING TO HAZARDOUS MATERIALS (Attachment 3 to the Council report), to be read in title only, further reading waived, and set second reading for October 22, 2013.

## **BACKGROUND**

The State of California adopts new California Building Standards Codes (CBSC) every three years. The new 2013 State Codes go into effect on January 1, 2014. In order to maintain consistency with other cities in the State and region, staff proposes that the City of Mountain View adopt the 2013 CBSC, which consists of Building, Fire, Residential, Green Building, Plumbing, and Mechanical Codes. In addition, staff

proposes that the City adopt the 2012 International Fire Code and the updated 2012 International Property Maintenance Code (IPMC) by reference. The City Code currently references the 2010 IPMC.

The State of California allows cities to amend the CBSC to make them more restrictive, provided required findings are made. The amendments must be necessary to address local climatic, geologic, environmental, or topographic conditions that affect the health, safety, and welfare of residents. Staff is proposing several local amendments as described in the next section of this report. Local amendments must be adopted before January 1, 2014.

## ANALYSIS

Staff is proposing four types of amendments to the CBSC and International Codes: amendments for regional consistency, new City-specific amendments, continuation of current Fire Code amendments, and modifications to the existing Mountain View Green Building Standards. Each of these topics will be summarized below and are listed in Attachment 4.

### Amendments for Regional Consistency

In an effort to establish uniformity in local building and fire code amendments throughout the Bay Area, staff participates in the Tri-Chapter and Santa Clara County Fire Marshals' code adoption committees, a consortium of building and fire officials throughout the greater Bay Area. Through committee efforts, the following amendments are being recommended for adoption:

1. Amendment to California Building Code provisions on exceptions to special inspections for concrete footings. Special inspections are required except below a specified compressive strength (Attachment 5).
2. Amendment to California Building Code to specify minimum reinforcing bar requirements for concrete footings (Attachment 6).
3. Amendment to California Residential Code to specify minimum reinforcing bar requirements for concrete footings (Attachment 7).
4. Amendment to California Residential Code to prohibit use of gypsum board and limit use of cement plaster as wall bracing material (Attachment 8).

The four amendments address structural weaknesses found in poorly performing buildings in past earthquakes.

### City-Specific Amendments

The City Code currently requires most new structures over 1,000 square feet in size to be fire sprinklered. In Mountain View, carports and structures have been proposed to support photovoltaic panels that exceed the 1,000 square foot threshold. This currently triggers the requirement to install fire sprinklers. Staff recommends that an amendment be adopted to clarify that noncombustible structures open on three or more sides, and less than 5,000 square feet be allowed without sprinklers.

Staff's proposed ordinance amending Chapter 24—Hazardous Materials implements the requirements of Assembly Bill 2286, the California Environmental Reporting System (CERS) applicable to hazardous materials regulated facilities. This bill requires all local government agencies and businesses under the program to electronically report hazardous materials business plan information.

### Continuation of Fire Code Amendments

The current City Code contains amendments to the fire sprinkler requirements of the State code, which were adopted as part of the 2010 code adoption cycle. The amendments provide consistency with other cities in the region and avoid a reduction in Mountain View fire sprinkler standards. Details on the amendments are contained in the 2010 staff report (Attachment 9). Staff is proposing to continue the existing amendments and incorporate them into the new 2013 Code. In addition, cities in Santa Clara County have previously adopted amendments to the Fire Code to provide uniformity of enforcement throughout the County. The proposed ordinance maintains these previously adopted amendments.

### Modifications to Mountain View Green Building Standards

In March 2011, Council adopted the Mountain View Green Building Code (MVGBC), which created green building standards specific to the City and amends the CBSC. MVGBC contains energy-efficiency requirements above the State Energy Code and establishes minimum sustainability ratings (such as Build It Green and LEED ratings) for certain new projects. The MVGBC also sets minimum green building requirements for residential additions and commercial alterations.

The new 2013 State Energy Code increases the energy-efficiency standards for residential construction by 25 percent and 30 percent for nonresidential construction. The 2013 energy-efficiency levels are 10 percent to 15 percent higher than the MVGBC requirements; therefore, the MVGBC energy requirements are no longer necessary. Furthermore, the 2013 State Green Building Code now contains requirements for additions and alterations to existing structures and the MVGBC provisions for additions and alterations are no longer necessary.

Staff is also not recommending a City energy-efficiency standard higher than the new 2013 State Codes at this time. A substantive update to the MVGBC is not contained in the department's current work program; in addition, State law requires that a cost-effectiveness study be conducted to evaluate a local energy standard above the State requirements. The study is required to be reviewed and accepted by the State.

#### Statement of Findings

The following findings fulfill the requirement for making local amendments to building standards: "The City of Mountain View experiences low humidity and warm temperatures during the summer months, creating conditions which are particularly conducive to the ignition and spread of grass, brush, and structure fires. Additionally, the City of Mountain View is geographically located in the most severe seismic zone, Seismic Zone 4, and situated near active earthquake faults capable of producing substantial seismic activity. Since the City of Mountain View is divided by major freeways and other transportation corridors, the occurrence of a major earthquake would significantly impact the ability of Fire Department personnel to respond to emergencies should one or more overpasses be substantially damaged or collapsed. Additionally, fire suppression capabilities could be severely limited should the water system be extensively damaged during a seismic event. Therefore, mitigation measures are necessary such as: automatic fire suppression systems, communications systems, access to buildings, seismic protection, safety controls for hazardous materials, and other safeguards in an effort to minimize the risks to citizens, property, and fire suppression personnel."

CalGreen Code Section 101.7.1 provides that for a city to make necessary changes to the CalGreen Code, it must make findings for each amendment, addition, or deletion based upon climatic, topographical, or geological conditions, including local environmental conditions as established by the City. Staff recommends that the City find that the amendments to CalGreen are necessary due to local environmental conditions due to climate change issues. On November 3, 2009, in response to climate change, the City Council approved community-wide Greenhouse Gas Reduction Targets which align

with the provisions of California Assembly Bill 32 (Global Warming Solutions Act). The proposed MVGBC amendments include provisions to administer and preserve natural resources, encourage the use of sustainable materials, manage waste, and reduce other direct and indirect causes of climate change.

### **FISCAL IMPACT**

The degree of fiscal impact to the City is expected to be minimal. Funding for code books and associated staff training is provided for in the Fiscal Year 2013-14 Building Inspection Division and Fire Department budgets.

### **ALTERNATIVES**

1. Do not modify Chapters 8, 14, and 24 of the City Code or amend the 2013 State and 2012 International Codes and be preempted by State-adopted codes on January 1, 2014. Preemption by the State would eliminate the City's ability to enforce the proposed amendments affecting the seismic standards and automatic fire sprinklers for new buildings and existing buildings undergoing major renovations.
2. Modify the local amendments as specified by City Council.

### **PUBLIC NOTICING**

Agenda posting in local newspaper and direct mail to selected businesses, architects, contractors, and developers.

Prepared by:

Anthony Ghioffi  
Chief Building Official

Jaymae Wentker  
Fire Marshal

Approved by:

Randal Tsuda  
Community Development Director

Bradley C. Wardle  
Fire Chief

Daniel H. Rich  
City Manager

- Attachments:
1. Draft Ordinance, Chapter 8
  2. Draft Ordinance, Chapter 14
  3. Draft Ordinance, Chapter 24
  4. Summary List of Amendments to Chapters 8, 14, and 24 of the Mountain View City Code
  5. Tri-Chapter Uniform Code Committee Summary of Amendment 1
  6. Tri-Chapter Uniform Code Committee Summary of Amendment 2
  7. Tri-Chapter Uniform Code Committee Summary of Amendment 3
  8. Tri-Chapter Uniform Code Committee Summary of Amendment 4
  9. [Staff Report on Adoption of 2010 Codes](#)

ORDINANCE NO.

AN ORDINANCE AMENDING CHAPTER 8, ARTICLES I, II, III, IV, AND V, OF THE MOUNTAIN VIEW CITY CODE, RELATING TO THE ADOPTION OF THE 2013 CALIFORNIA BUILDING CODES, INCORPORATING BY REFERENCE OTHER INTERNATIONAL AND UNIFORM CODES, AND ADOPTION OF THE 2012 INTERNATIONAL PROPERTY MAINTENANCE CODE

WHEREAS, a local entity such as the City of Mountain View must adopt the California Building Standard Code prior to January 1, 2014 if the local agency desires to maintain local control and to make amendments to the California Codes or other international and uniform codes in order to accommodate local requirements for local conditions; and

WHEREAS, the City of Mountain View has local conditions which require amendments to the California Building Standard Code and other international and uniform codes; and

WHEREAS, the City of Mountain View has adopted and amended Chapter 1, Division II of the California Building Code to address administrative provisions; and

WHEREAS, the City of Mountain View has made amendments and adopted the California Building Codes as Chapter 8, Articles I, II, III, and IV, to address climatic, topographic, and geological conditions; and

WHEREAS, the City of Mountain View, in adopting these codes, will be consistent with the State of California and other local municipalities;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MOUNTAIN VIEW DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. Article I, Divisions I, II, and III and Articles II, III, IV, and V of Chapter 8 of the Mountain View City Code are hereby deleted in their entirety.

Section 2. Article I, Division I, is hereby added to Chapter 8 of the Mountain View City Code, to read as follows:

**“ARTICLE I.**  
**BUILDING CODE.**

**DIVISION I. CALIFORNIA BUILDING CODE.**

**SEC. 8.10.1. California Building Code – Adopted.**

The California Building Code, 2013 edition, incorporates, by adoption, the 2012 edition of the International Building Code of the International Code Council with California amendments. The 2012 International Building Code, promulgated by the International Code Council, which regulates the erection, construction, enlargement, alteration, repair, moving, removal, conversion, demolition, occupancy, equipment, use, height, area and maintenance of buildings and other structures, is adopted, including the following appendices: Appendices I and J by this reference is made a part of this city code with the same force and effect as though set out herein in full. Division II, Part 1, Scope and Administration, is adopted as the City of Mountain View administrative provisions for all adopted building codes. One (1) copy of the California Building Code is on file and open to public inspection in the building inspection office.

**SEC. 8.10.2. Subsection 101.1 amended – Title.**

Subsection 101.1 of the 2013 California Building Code is amended to read:

**101.1. Title.** These regulations shall be known as the Building Codes of the City of Mountain View, hereinafter referred to as “this code.”

**SEC. 8.10.3. Subsection 101.4.4 amended – Property maintenance.**

Subsection 101.4.4 of the 2013 California Building Code is amended to read:

**101.4.4. Property Maintenance.** The provisions of the California Building Code, California Residential Code, California Mechanical Code, California Electrical Code, California Plumbing Code, California Fire Code, and 2012 International Property Maintenance Code shall apply to existing structures and premises; equipment and facilities; light, ventilation, space heating, sanitation, life and fire safety hazards; responsibilities of owners, operators and occupants and occupancy of existing premises and structures.

**SEC. 8.10.4. Subsection 103.1 amended – Division of building inspection established.**

Subsection 103.1 of the California Building Code is amended to read as follows:

**103.1. Division of building inspection established.** There is hereby established in the City of Mountain View a division of building inspection which shall be under the supervision of the chief building official who shall be accountable to the community development director of the city.

**SEC. 8.10.5. Subsection 104.1 amended – General.**

Subsection 104.1 of the California Building Code is amended to read as follows:

**104.1. General.** The chief building official is hereby authorized and directed to enforce the provision of this code. The chief building official shall have the authority to render interpretations of this code and to adopt policies and procedure in order to clarify the application of its provisions. Such interpretations, policies and procedures shall be in compliance with the intent and purpose of this code. Such policies and procedures shall not have the effect of waiving requirements specifically provide for in this code.

(a) The chief building official is hereby authorized and empowered to enforce all the provisions of this code. For such purposes, he/she shall have the powers of a law enforcement officer.

(b) The chief building official shall enforce a fee schedule set forth by city council resolution, as amended from time to time.

**SEC. 8.10.6. Subsection 105.1.1 deleted – Annual permit.**

**SEC. 8.10.7. Subsection 105.1.2 deleted – Annual permit records.**

**SEC. 8.10.8. Subsection 105.2 amended – Work exempt from permit.**

Subsection 105.2 of the California Building Code is hereby amended to read as follows:

**105.2. Building.**

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11 m<sup>2</sup>).

2. Fences not over 6 feet (1,829 mm) high.
3. Oil derricks.
4. Retaining walls that are not over 4 feet (1,219 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.
5. Water tanks supported directly on grade if the capacity does not exceed 5,000 gallons (18,925 L) and the ratio of height to diameter or width does not exceed 2:1.
6. Sidewalks, residential decks and driveways no 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 or required exit.
7. Painting, papering, tiling, carpeting, cabinets, countertops and similar finish work that is not an element of an accessible route or furnishing.
8. Temporary motion picture, television and theater stage sets and scenery.
9. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, do not exceed 5,000 gallons (1,895 L) and are installed entirely above ground.
10. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
11. Swings and other playground equipment accessory to single detached one- and two-family dwellings and not considered a public playground.
12. 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.
13. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1,753 mm) in height.
14. Window replacements in the same opening, when window opening is not modified and there is no framing construction required.

**SEC. 8.10.9. Subsection 105.3.2 amended – Time limitation of application.**

Subsection 105.3.2 of the California Building Code is amended to read as follows:

**105.3.2. Time limitation of application.** An application for a permit for any proposed work shall be deemed to have been abandoned one hundred eighty (180) days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the chief building official is authorized to grant one (1) or more extensions of time for additional periods not exceeding one hundred eighty (180) days each. The extension shall be requested in writing and justifiable cause demonstrated.

**SEC. 8.10.10. Subsection 105.5 amended – Expiration.**

Subsection 105.5 of the California Building Code is amended to read as follows:

**105.5. Expiration.** Every permit issued by the chief building official under the provisions of this code shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within one hundred eighty (180) days from the date of such permit or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of one hundred eighty (180) days from the last inspection. Before such work can be recommenced, a new permit shall be first obtained to do so, and the fee therefor shall be one-half (1/2) the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work; and provided further that such suspension or abandonment has not exceeded one (1) year from the issuance date of such permit or if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of one (1) year from the last inspection. The chief building official has the authority to waive or reduce said fees if deemed appropriate and maintaining cost recovery. In order to renew action on a permit after expiration, the permittee shall pay a new full permit fee.

Any permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The chief building official may extend at no charge the time for action by the permittee for a period not exceeding one hundred eighty (180) days on written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken.

**SEC. 8.10.11. Subsection 105.8 added – Required approval of community development director.**

Subsection 105.8 is added to the California Building Code, to read as follows:

**105.8. Required approval of community development director.** As to any application for a building permit regarding any proposed or existing building or structure situated, or to be situated, on any lot, which lot is subject to a previously granted variance, site plan and architectural approval, conditional use permit, planned community permit or any other type of entitlement set forth in Chapter 36 of the Mountain View City Code, the chief building official shall not be required to issue any such building permit unless the community development director, or the director's authorized representative, has informed the chief building official that the conditions of approval of such variance, site plan and architectural approval, conditional use permit, planned community permit or other land use entitlement have been fulfilled, or that sufficient guarantees have or will be posted with the director to ensure that all such conditions of approval will be fulfilled.

**SEC. 8.10.12. Subsection 109.2 amended – Schedule of permit fees.**

Subsection 109.2 of the California Building Code is amended to read as follows:

**109.2. Schedule of permit fees.** On buildings, structures, electrical, gas, mechanical and plumbing systems or alterations requiring a permit, a fee for each permit shall be paid as required, in accordance with the master fee schedule as adopted by the city council.

**SEC. 8.10.13. Subsection 109.3 amended – Building permit valuations.**

Subsection 109.3 of the California Building Code is amended to read as follows:

**109.3. Building permit valuations.** The applicant for a permit shall provide an estimated permit value at time of application. Permit valuations shall include total value of work, including materials and labor, for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment and permanent systems. If, in the opinion of the chief building official, the valuation is underestimated on the application, the valuation shall be adjusted using the current building valuation data table adopted by city council. Final minimum building permit valuation shall be set by the chief building official.

**SEC. 8.10.14. Subsection 109.5 amended – Related fees.**

Subsection 109.5 of the California Building Code is amended to read as follows:

**109.5. Related fees.** The payment of the fee for the construction, alteration, removal of demolition for work done in connection to or concurrently with the work authorized by a building permit shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law and the City of Mountain View.

**SEC. 8.10.15. Section 111.2 amended – Certificate issued.**

Subsection 111.2 of the California Building Code is amended to read as follows:

**111.2. Certificate issued.** After the chief building official inspects the building or structure and finds no violations of the provisions of this code, City of Mountain View conditions and ordinances, or other laws that are enforced by the building inspection division, the chief building official shall issue a certificate of occupancy. The project job card issued by the City of Mountain View shall serve as the certificate of occupancy when properly signed.

**SEC. 8.10.16. Subsection 112.1 – Amended – Connection of utility service.**

Subsection 112.1 of the California Building Code is amended to read as follows:

**112.1. Connection of utility service.** It shall be unlawful for any person, firm or corporation to make a connection from a source of electrical energy or fuel gas to any electric wiring system, gas piping system, device, appliance or equipment for the installation of which a permit is required, unless such wiring system, gas piping system, device, appliance or equipment has first been inspected and found to comply with all applicable codes and ordinances of the city.

**SEC. 8.10.17. Subsection 112.3 amended – Authority to disconnect service utilities.**

Subsection 112.3 of the California Building Code is amended to read as follows:

**112.3. Authority to disconnect service utilities.** The chief building official is authorized to disconnect, or order disconnection of, electrical or gas service to any system, device, appliance or equipment found to be in violation of this code or under any of the following conditions:

1. Failure of the owner or his/her agent to secure or to fully comply with the conditions of the required permits.

2. Work found to be hazardous to life and property due to improper installation or maintenance or lack thereof of devices, appliances or equipment.

3. Work performed with or without a permit which has been connected to a source of supply without approval of the chief building official.

4. Electrical or gas services to buildings vacant for a period exceeding sixty (60) days.

**SEC. 8.10.18. Subsection 113.1 amended – Board of appeals.**

Subsection 113.1 of the California Building Code is amended to read as follows:

**113.1. General procedure for appeals.** Any applicant for a building permit who is in disagreement with the chief building official’s interpretation of any provision of this code, or any applicant for a building permit who has been refused issuance of such permit, may appeal the chief building official’s interpretation or refusal to issue said permit to the city council of the city. All such appeals shall be filed within ten (10) working days after the date the chief building official renders an interpretation of any provision of this code or refuses to issue said permit. All appeals shall be in writing, shall be filed with the city clerk, shall state the ground or grounds of appeal and shall be accompanied by a nonrefundable fee of two hundred fifty dollars (\$250). Within sixty (60) calendar days after an appeal is filed, or as soon thereafter as possible, the appeal shall be heard by the city council. The city clerk shall give at least five (5) days prior written notice to the applicant of the date, time and place for the hearing on said appeal. The city council shall not be required to give public notice of said hearing. The applicant shall be entitled to present any oral and/or written evidence at said hearing. Any hearing held pursuant to this section may be continued from time to time by the city council. Within twenty-one (21) days after the hearing is closed, the council shall announce its decision. All decisions of the city council on any appeal shall be final. Any action to challenge, annul or contest the validity of any decision of the city council on any such appeal shall be filed no later than sixty (60) calendar days after the date the city council has adopted a resolution formalizing its decision on the appeal.

**SEC. 8.10.19. Subsection 114.1 amended – Unlawful acts.**

Subsection 114.1 of the California Building Code is amended to read as follows:

**114.1. Unlawful acts.**

It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy or

maintain any building or structure in the city, or cause or permit the same to be done, contrary to or in violation of any of the provisions of this code.

Any person, firm or corporation violating any of the provisions of this code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this code is committed, continued or permitted, and upon conviction of any such violation such person shall be punishable as set forth in the city charter.

**SEC. 8.10.20. Section [F] 501.2 amended – Address identification.**

Section [F] 501.2 of the California Building Code is amended to read as follows:

**[F] 501.2. Address identification.** New and existing buildings shall be provided with approved address numbers or letters. Each character shall be not less than 6 inches (152.4 mm) in height and not less than 0.5 inch (12.7 mm) in width. They shall be installed on a contrasting background and be plainly visible from the street or road fronting the property. When required by the fire code official, address numbers 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.

**Exception:** For R-3 occupancies, numbers shall be a minimum 4 inches high with minimum stroke width of 0.5 inch.

**SEC. 8.10.21. Subsection 706.1.1 amended – Party walls.**

Subsection 706.1.1 of the California Building Code is amended to read as follows:

**706.1.1. Party walls.** Any wall located on a lot line between adjacent buildings which is used or adopted for joint service between the two buildings shall be constructed as a fire wall in accordance with Section 705. Party walls shall create separate buildings. In occupancy group R-3, the construction separation at the lot line shall be with two (2) separate one (1) hour-rated fire walls complying with Section 705.

**SEC. 8.10.22. 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. 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 903.2.19 and as follows, whichever is the more restrictive:

1. An automatic sprinkler system shall be installed throughout all new buildings and structures.

**Exceptions:**

a. Buildings and structures that do not exceed 1,000 square feet of building area in the following Groups: A, B, E, F, I, L, M, S and U occupancies. Exception does not apply to habitable accessory structures constructed on residential properties, regardless of area or occupancy classification.

b. Group S-2 or U occupancies used exclusively for vehicle parking and meeting all of the following conditions:

(1) Noncombustible construction;

(2) Maximum building area not to exceed 5,000 square feet;

(3) Structure is open on three (3) or more sides;

(4) Minimum of 10 feet separation from existing buildings unless area is separated by fire walls complying with California Building Code Section 706.

2. In determining whether an automatic fire sprinkler system is required, the following criteria shall be used:

(a) Determine the Building Area as defined by the California Building Code.

**Exception:** Eave projections 24 inches or less shall not be counted.

(b) Multiply the Building Area as determined herein by the number of stories. A full basement shall be counted as a story and the floor area of mezzanine(s) shall be added to the Building Area of the story in which they are located.

(c) For the purposes of determining whether automatic fire sprinklers are required in a building, the installation fire walls will not be considered to create separate buildings.

3. Any change in the character of occupancy or in the use of any building with a Building Area at or over 3,600 square feet which, in the opinion of the fire chief or chief building official, would place the building into a more hazardous division of the same occupancy group or into a different group of occupancies and constitutes a greater degree of life safety, or increased fire risk, shall require the installation of an approved automatic fire sprinkler system.

(a) For purposes of this section, life safety includes, but is not limited to, increased occupant load, public assembly areas, public meeting areas, churches, indoor amusement attractions, buildings with complex exiting system due to increased occupant loads, large schools/day-care facilities, large residential care facilities with nonambulatory clients.

(b) For purposes of this section, fire risks include, but is not limited to, high piled combustible storage, woodworking operations, hazardous operations using hazardous materials, increased fuel loads (storage of moderate to highly combustible materials), increased sources of ignition (welding, automotive repair with the use of flammable liquids and open flame).

4. For existing nonsprinklered buildings, an approved automatic sprinkler system shall be required when additions meet one of the following criteria:

(a) Additions equal to or greater than 100 percent of the existing square footage.

(b) Additions that increase the total building area to over 4,100 square feet.

**SEC. 8.10.23. Subsection 903.3.1 amended – Standards.**

Subsection 903.3.1 of the California Building Code is amended to read as follows:

**903.3.1. Standards.** Sprinkler systems shall be designed and installed in accordance with Section 903.3.1.1, unless otherwise permitted by 903.3.1.2 and 903.3.1.3. Sprinkler systems shall also be designed and installed in accordance with the City of

Mountain View “Commercial Automatic Fire Sprinklers Requirements” and “Residential Automatic Fire Sprinklers Requirements.”

**SEC. 8.10.24. Subsection 905.3 amended – Standpipe systems.**

Subsection 905.3 of the California Building Code is amended to read as follows:

**905.3. Required installations.** Standpipe systems shall be installed where required by Subsections 905.3.1 through 905.3.11.1 and in the locations indicated in Subsections 905.4, 905.5 and 905.6. Standpipe systems are required to be combined with automatic sprinkler systems.

**Exception:** Standpipe systems are not required in Group R-3 Occupancies.

**SEC. 8.10.25. Section 905.3.1 amended – Height.**

Section 905.3.1 of the California Fire Code is amended to read as follows:

**905.3.1. Height.** Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than twenty (20) feet above the lowest level of the fire department vehicle access, or where the floor level of the lowest story is located more than twenty (20) feet below the highest level of fire department vehicular access.

**Exceptions:**

1. Class I wet standpipes are allowed in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

2. Class I wet standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet above the lowest level of fire department vehicle access.

3. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided the hose connections are located as required for Class II standpipes in accordance with Section 905.5.

4. Class I wet standpipes are allowed in basements equipped throughout with an automatic sprinkler system.

5. In determining the lowest level of fire department vehicular access, it shall not be required to consider:

5.1 Recessed loading docks for four vehicles or less, and

5.2 Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.

**SEC. 8.10.26. Subsection 905.3.5 amended – Underground buildings.**

Subsection 905.3.5 of the California Building Code is amended to read as follows:

**905.3.5. Underground Buildings and Parking Structures.** Underground buildings and parking structures shall be equipped throughout with a Class I automatic wet standpipe system.

**SEC. 8.10.27. Section 905.4 amended – Location of Class I Standpipe Hose Connections.**

Section 905.4 of the International Fire Code is amended to read as follows:

**905.4 Location of Class I Standpipe Hose Connections.** Class I standpipe hose connections shall be provided in all of the following locations:

1. In every required stairway, a hose connection shall be provided for each floor level above or below grade. Hose connections shall be located at an intermediate floor level landing between floors, unless otherwise approved by the fire code official.

2. On each side of the wall adjacent to the exit opening of a horizontal exit.

**Exception:** Where floor areas adjacent to a horizontal exit are reachable from exit stairway hose connections by a 30-foot hose stream from a nozzle attached to 100 feet of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.

3. In every exit passageway, at the entrance from the exit passageway to other areas of the building.

**Exception:** Where the floor areas adjacent to an exit passageway are reachable from exit stairway hose connections by a 30-foot hose stream from a nozzle attached to 100 feet of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall.

In open mall buildings, adjacent to each public entrance to the mall at the perimeter line and adjacent to each entrance from an exit passageway or exit corridor to the mall.

5. Where the roof has a slope less than four (4) units vertical in twelve (12) units horizontal, a hose connection shall be located to serve the roof or at the highest landing of a stairway with stair access to the roof provided in accordance with Section 1009.16.

6. Where the most remote portion of a sprinklered or nonsprinklered floor or story is more than 150 feet from a hose connection, additional Class I standpipe hose connections shall be provided within 150 feet of all areas. The distance from a hose connection shall be measured along the path of travel.

**SEC. 8.10.28. Subsection [F] 907.6 amended – Installation.**

Section [F] 907.6 of the California Building Code is amended to read as follows:

[F] 907.6 – Installation. A fire alarm system shall be installed in accordance with 907.6.1 through 907.6.5.2, National Fire Protection Agency (NFPA) 72 and the City of Mountain View “Fire Alarm and Sprinkler Monitoring System Requirements.”

**SEC. 8.10.29. Section 1008.1.9.11 amended – Stairway doors.**

Section 1008.1.9.11 of the California Fire Code is amended, to read as follows:

1008.1.9.11. Stairway doors. Interior stairway means of egress doors shall be openable from both sides without the use of a key or special knowledge or effort.

**Exceptions:**

1. Stairway discharge doors shall be openable from the egress side and shall only be locked from the opposite side.

2. This section shall not apply to doors arranged in accordance with Section 403.5.3 of the International Building Code.

3. In stairways serving not more than six (6) stories, in buildings not otherwise classified as a high-rise building in accordance with California Building Code, doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building.

4. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group B, F, M, and S occupancies where the only interior access to the tenant space is from a single exit stair where permitted in Section 1021.2.

5. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group R-2 occupancies where the only interior access to the dwelling unit is from a single exit stair where permitted in Section 1021.2.

**SEC. 8.10.30. Subsection 1705.3, Exception 1 amended – Concreted construction.**

Section 1705.3, Exception 1 of the California Building Code is amended to read as follows:

**1705.3 Concrete construction.** The special inspections and verifications for concrete construction shall be as required by this section and Table 1705.3.

**Exception:** Special inspections 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 pounds per square inch (psi) (17.2 Mpa).

**SEC. 8.10.31. Subsection 1905.1.8 amended – ACI 318, Section 22.10.**

Subsection 1905.1.8 of the California Building Code is amended to read as follows:

**1905.1.8. ACI 318, Section 22.10.**

22.10. Plain concrete in structures assigned to Seismic Design Category C, D, E or F.

22.10.1. Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows:

a. 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.

**Exception:** In detached one- and two-family dwelling three (3) stories or less in height, the projection of the footing beyond the face of the supported member is permitted to exceed the footing thickness.

b. Plain concrete footing supporting walls are permitted, provided the footings have at least two (2) continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than 0.002 times the gross cross-sectional area of the footing. A minimum of one (1) bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

**Exception:** In detached one- and two-family dwellings three (3) stories or less in height and constructed with stud bearing walls, plain concrete footings with at least two (2) continuous longitudinal reinforcing bars not smaller than No. 4 are permitted to have a total area of less than 0.002 times the gross cross-sectional area of the footing.

**SEC. 8.10.32. Subsection 2308.9.3 amended – Conventional construction provisions – Bracing.**

Section 2308.9.3 of the California Building Code is amended to read as follows:

**2308.9.3. Bracing.** Braced wall lines shall consist of braced wall panels that meet the requirements for location, type and amount of bracing as shown in Figure 2308.9.3, specified in Table 2308.9.3(1), and are in line or offset from each other by not more than 4 feet (1,219 mm). Braced wall panels shall start not more than 12-1/2 feet (3,810 mm) from each end of a braced wall line. Braced wall panels shall be clearly indicated on the plans. Construction of braced wall panels shall be by one of the following methods:

1. Deleted.

2. Deleted.

3. Wood structural panel sheathing with a thickness not less than 5/16 inch (7.9 mm) for 16-inch (406 mm) stud spacing and not less than 3/8 inch (9.5 mm) for 24-inch (610 mm) stud spacing in accordance with Tables 23-II-A-1 and 23-IV-D-1.

4. Fiberboard sheathing 4-foot by 8-foot (1,219 mm by 2,438 mm) panels not less than 1/2 inch (13 mm) thick applied vertically on studs spaced not over 16 inches (406 mm) on center when installed in accordance with Section 2315.6 and Table 23-II-J.

5. Deleted.

6. Deleted.

7 Portland cement plaster on studs 16 inches (406 mm) on center installed in accordance with Table 25-I. These standards can only be used in one-story structures of R3 and U1 occupancies.

8. Hardboard panel siding where installed in accordance with Section 2303.1.6 and Table 2308.9.3(5).

For cripple wall bracing, see Section 2308.9.4.1. For Methods 3, 4, 7 and 8, each panel must be at least 48 inches (1,219 mm) in length, covering three (3) stud spaces where studs are spaced 16 inches (406 mm) apart and covering two (2) stud spaces where studs are spaced 24 inches (610 mm) apart.

**SEC. 8.10.33. Section 2505 deleted – Shear wall construction.**

Section 2505 is deleted from the California Building Code, entitled Shear Wall Construction.

**SEC. 8.10.34. Subsection 3310.1 amended – Means of egress.**

Subsection 3310.1 of the California Building Code is amended to read as follows:

**3310.1. Stairways Required.** Each level above the first story in new multi-story buildings that require two (2) exit stairways shall be provided with at least two (2) usable exit stairways after the floor decking is installed. The stairways shall be continuous and discharge to grade level. 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 multi-story buildings, one of the required exit stairs may be obstructed on not more than two (2) contiguous floor levels for the purpose of stairway construction (i.e., installation of gypsum board, painting, flooring, etc.).”

Section 3. Article I, Division II, is hereby added to Chapter 8 of the Mountain View City Code, to read as follows:

**“DIVISION II. CALIFORNIA RESIDENTIAL CODE.**

**SEC. 8.15.1. California Residential Code adopted – Short title.**

The California Residential Code, 2013 edition, incorporates, by adoption, the 2012 edition of the International Residential Code of the International Code Council with California amendments. The 2012 International Residential Code, promulgated by the International Code Council, which regulates the erection, construction, enlargement,

alteration, repair, moving, removal, conversion, demolition, occupancy, equipment, use, height, area and maintenance of buildings and other structures is adopted, including the following appendices: Appendix Chapter H and Appendix Chapter G, and by this reference is made a part of this city code with the same force and effect as though set out herein in full. One (1) copy of the 2013 California Residential Code is on file and open to public inspection in the building inspection office.

**SEC. 8.15.2. Chapter 1 deleted – Scope and administration.**

Chapter 1, Division I and Division II, is deleted from the California Residential Code.

**SEC. 8.15.3. Table R301.2(1) amended – Climatic and geographic design criteria.**

Table R301.2(1) of the 2013 California Residential Code is amended to read as follows:

**TABLE R301.2(1)**  
**CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

<u>GROUND SNOW LOAD</u>	<u>WIND DESIGN</u>			<u>SUBJECT TO DAMAGE FROM</u>			<u>WINTER DESIGN TEMP<sup>e</sup></u>	<u>ICE BARRIER UNDERLAYMENT REQUIRED<sup>h</sup></u>	<u>FLOOD HAZARDS<sup>g</sup></u>	<u>AIR FREEZING INDEX<sup>i</sup></u>	<u>MEAN ANNUAL TEMP<sup>g</sup></u>
	<u>Speed<sup>d</sup> (mph)</u>	<u>Topographic Effects<sup>k</sup></u>	<u>SEISMIC DESIGN CATEGORY<sup>f</sup></u>	<u>Weathering<sup>a</sup></u>	<u>Frost Line Depth<sup>b</sup></u>	<u>Termite<sup>c</sup></u>					
<u>0</u>	<u>85</u>	<u>NO</u>	<u>D<sub>2</sub></u>	<u>Negligible</u>	<u>0</u>			<u>NO</u>		<u>0</u>	<u>55</u>

**SEC. 8.15.4. Subsection R313.1 added – Townhouse automatic sprinkler systems.**

Subsection R313.1 of the California Residential Code is added, to read as follows:

**R313.1. Townhouse automatic fire sprinkler systems.** An automatic residential fire sprinkler system shall be installed in new townhouses.

**Exception No. 1:** For existing nonsprinklered townhouses, an approved automatic residential fire sprinkler system shall be required when additions meet one of the following criteria:

- a. Additions equal to or greater than 100 percent of the existing square footage.
- b. Additions that increase the total building area to over 4,100 square feet.

**Exception No. 2:** An automatic residential fire sprinkler system shall not be required for alterations made to existing townhouses that do not have an automatic residential fire sprinkler system installed.

Exception No. 3: Group S-2 or U occupancies used exclusively for vehicle parking and meeting all of the following conditions:

1. Noncombustible construction;
2. Maximum building area not to exceed 5,000 square feet;
3. Structure is open on three (3) or more sides;
4. Minimum of 10 feet separation from existing buildings unless area is separated by fire walls complying with California Building Code Section 706.

**SEC. 8.15.5. Subsection R313.2 added – One- and two-family dwellings automatic sprinkler systems.**

Subsection R313.2 of the California Residential Code is added, to read as follows:

**R313.2. One- and two-family dwelling automatic fire sprinkler systems.** An automatic residential fire sprinkler system shall be installed in new one- and two-family dwellings.

**Exception No. 1:** For existing nonsprinklered one- and two-family dwellings, an approved automatic residential fire sprinkler system shall be required when additions meet one of the following criteria:

- a. Additions equal to or greater than 100 percent of the existing square footage.
- b. Additions that increase the total building area to over 4,100 square feet.

**Exception No. 2:** An automatic residential fire sprinkler system shall not be required for alterations made to existing one- and two-family dwellings that do not have an automatic residential fire sprinkler system installed.

**Exception No. 3:** Group S-2 or U occupancies used exclusively for vehicle parking and meeting all of the following conditions:

1. Noncombustible construction;
2. Maximum building area not to exceed 5,000 square feet;
3. Structure is open on three (3) or more sides;

4. Minimum of 10 feet separation from existing buildings unless area is separated by fire walls complying with California Building Code Section 706.

**SEC. 8.15.6. Subsection R403.1.3 amended – Seismic reinforcing.**

Subsection R403.1.3, Seismic Reinforcing, is amended to read as follows:

**R403.1.3. Seismic reinforcing.**

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 minimum reinforcement of at least two (2) continuous longitudinal reinforcing bars not smaller than No. 4 bars. Bottom reinforcement shall be located a minimum of 3 inches (76 mm) clear from the bottom of the footing.

In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> where a construction joint is created between a concrete footing and a stem wall, a minimum of one (1) No. 4 bar shall be installed at not more than 4 feet (1,219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing, have a standard hook and extend a minimum of 14 inches (357 mm) into the stem wall.

In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> where a grouted masonry stem wall is supported on a concrete footing and stem wall, a minimum of one (1) No. 4 bar shall be installed at not more than 4 feet (1,219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing and have a standard hook.

In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub>, masonry stem walls without solid grout and vertical reinforcing are not permitted.

**Exception:** In detached one- and two-family dwellings which are three (3) stories or less in height and constructed with stud bearing walls, isolated plain concrete footings, supporting columns or pedestals are permitted.

**SEC. 8.15.7. Table R602.10.3(3) amended – Bracing requirements based on seismic design category.**

Table R602.10.3(3) of the California Residential Code is amended to read as follows:

Add footnote "e" notation to Table heading as follows:

**TABLE R602.10.1.2(2)<sup>a,b,c,d,e</sup>**

Add footnote “e” wording to the end of Table R602.10.3.3), to read as follows:

ε In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub>, Method GB is not permitted and the use of Method PCP is limited to one-story single-family dwellings and accessory structures.

**SEC. 8.15.8. Subsection R602.10.4.4 added – Limits on Methods GB and PCP.**

Subsection R602.10.4.4 is added to the California Residential Code, to read as follows:

**R602.10.4.4. Limits on Methods GB and PCP.** In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub>, Method GB is not permitted for use as 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 D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub>, the use of Method PCP is limited to one-story single-family dwellings and accessory structures.”

Section 4. Article I, Division III, is hereby added to Chapter 8 of the Mountain View City Code, to read as follows:

**“DIVISION III. GREEN BUILDING CODE.**

**SEC. 8.20.1. California Green Building Standards Code – Adopted.**

The California Green Building Standards Code, 2013 edition, which regulates the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction for all new construction. One (1) copy of the California Green Building Standards Code, including the Mountain View amendments, is on file and open to public inspection in the building inspection office.

**SEC. 8.20.2. Subsection 101.1 – Amended – Title.**

Subsection 101.1 of the 2013 California Green Building Standards Code is amended to read as follows:

**101.1 Title.** These regulations shall be known as the Mountain View Green Building Code and may be cited as such and will be referred to herein as “this code.” The Mountain View Green Building Code is an amendment to Parts 11 of 12 of the official compilation and publication of the adoption, amendment and repeal of building

regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code.

**SEC. 8.20.3. Subsection 101.3 – Amended.**

Subsection 101.3 of the 2013 California Green Building Standards Code is amended to read as follows:

**101.3 Scope.** The provisions of this code shall apply to the planning, design, operation, construction, use and occupancy of every privately owned, newly constructed building, addition or tenant improvement as regulated in this code throughout the City of Mountain View.

It is not the intent that this code substitute or be identified as meeting the certification requirements of any private, third-party green building program.

**SEC. 8.20.4. Subsection 101.3.2 – Added.**

Subsection 101.3.2 is added to the 2013 California Green Building Standards Code to read as follows:

**101.3.2 Exempted projects.** Projects that are exempted from complying with the Mountain View Green Building Code are:

1. Accessory structures;
2. Registered or eligible to be registered local, state or federal historic structures;
3. Natural disaster repairs;
4. Temporary structures;
5. Residential interior alterations (i.e., remodels) which do not increase the conditioned area, volume or size; and
6. Nonresidential tenant improvements with a construction valuation less than two hundred thousand dollars (\$200,000).

**SEC. 8.20.5. Subsection 101.10 – Amended.**

Subsection 101.10 of the 2013 California Green Building Standards Code is amended to read as follows:

**101.10 Mandatory requirements.** This code contains the minimum mandatory green building measures required by the City of Mountain View. All new structures in the City of Mountain View must comply with the mandatory measures of the 2013 California Green Building Standards Code as adopted by the state in addition to local amendments included in this code. This includes all residential new construction projects regardless of height or number of stories.

**SEC. 8.20.6. Subsection 101.10.1 – Added.**

Subsection 101.10.1 is added to the 2013 California Green Building Standards Code to read as follows:

**101.10.1 Project types.** Table 101.10, Mandatory Green Building Requirements, details the project types that are required to comply with this code.

**SEC. 8.20.7. Subsection 101.10.1.1 – Added.**

Subsection 101.10.1.1 is added to the 2013 California Green Building Standards Code to read as follows:

**101.10.1.1 Residential projects.** All residential projects (single-family and multi-family) regulated by this code must comply with Mountain View's green building requirements as listed below.

**SEC. 8.20.8. Subsection 101.10.1.1.2 – Added.**

Subsection 101.10.1.1.2 is added to the 2013 California Green Building Standards Code to read as follows:

**101.10.1.1.2 Residential new construction – Less than five (5) units.** All residential new construction less than five (5) units must comply with the following:

**a.** The mandatory measures of the 2013 California Green Building Standards Code and any Mountain View amendments; and

**b.** Demonstrate energy compliance to meet or exceed Title 24, Part 6.

**SEC. 8.20.9. Subsection 101.10.1.1.3 – Added.**

Subsection 101.10.1.1.3 is added to the 2013 California Green Building Standards Code to read as follows:

**101.10.1.1.3 Residential new construction – Five (5) units or more.** All residential new construction with five (5) units or more must comply with the following:

a. The mandatory measures of the 2013 California Green Building Standards Code and any Mountain View amendments.

b. Meet the intent of seventy (70) GreenPoint Rated points.

c. Demonstrate energy compliance to meet or exceed Title 24, Part 6.

**SEC. 8.20.10. Subsection 101.10.1.2 – Added.**

Subsection 101.10.1.2 is added to the 2013 California Green Building Standards Code to read as follows:

**101.10.1.2. Nonresidential projects.** All nonresidential projects regulated by this code must comply with Mountain View's green building requirements as listed below.

**SEC. 8.20.11. Subsection 101.10.1.2.2 – Added.**

Subsection 101.10.1.2.2 is added to the 2013 California Green Building Standards Code to read as follows:

**101.10.1.2.2. Nonresidential new construction – Less than 5,000 square feet.** All nonresidential new construction less than 5,000 square feet (gross) must comply with the following:

a. Meet the mandatory measures of the California Green Building Standards Code and any Mountain View amendments; and

b. Demonstrate energy compliance to meet or exceed Title 24, Part 6.

**SEC. 8.20.12. Subsection 101.10.1.2.3 – Added.**

Subsection 101.10.1.2.3 is added to the 2013 California Green Building Standards Code to read as follows:

**101.10.1.2.3. Nonresidential new construction – 5,000 through 25,000 square feet.**  
All nonresidential new construction of 5,000 through 25,000 square feet (gross) must comply with the following:

a. Meet the mandatory measures of the California Green Building Standards Code and any Mountain View amendments;

b. Meet the intent of LEED® certified; and

c. Demonstrate energy compliance to meet or exceed Title 24, Part 6.

**SEC. 8.20.13. Subsection 101.10.1.2.4 – Added.**

Subsection 101.10.1.2.4 is added to the 2013 California Green Building Standards Code to read as follows:

**101.10.1.2.4 Nonresidential new construction – Greater than 25,000 square feet.**  
All nonresidential new construction greater than 25,000 square feet (gross) must comply with the following:

a. Meet the mandatory measures of the California Green Building Standards Code and any Mountain View amendments;

b. Meet the intent of LEED® Silver certified; and

c. Demonstrate energy compliance to meet or exceed Title 24, Part 6.

**SEC. 8.20.14. Subsection 101.10.1.3 – Added.**

Subsection 101.10.1.3 is added to the 2013 California Green Building Standards Code to read as follows:

**101.10.1.3 Mixed-use projects.** All new mixed-use construction projects must comply with Mountain View's green building requirements and meet the requirements applicable to each primary occupancy component. See Table 101.10 for mixed-use project types that apply.

**SEC. 8.20.15. Table 101.10 – Added.**

Table 101.10 is added to the 2013 California Green Building Standards Code to read as follows:

**Table 101.10 Mandatory Green Building Requirements**

<u>Project Type</u>	<u>Energy Requirement<sup>±</sup></u>	<u>Green Building Standard and Requirement</u>
<b><u>RESIDENTIAL PROJECTS (SINGLE-FAMILY, MULTI-FAMILY)</u></b>		
<b><u>New Construction</u></b>		
<u>New Residential &lt; 5 units</u>	<u>Title 24, Part 6</u>	<u>Mandatory CalGreen Requirements</u>
<u>New Residential &gt; 5 units</u>	<u>Title 24, Part 6<sup>±</sup></u>	<u>Meet the intent of 70 GreenPoint Rated points and Mandatory CalGreen Requirements</u>
<b><u>Additions &amp; Alterations (applies to conditioned space only)</u></b>		
<u>Additions &amp; Alterations</u>	<u>Title 24, Part 6</u>	<u>Mandatory CalGreen Requirements</u>
<b><u>MIXED-USE PROJECTS</u></b>		
<b><u>New Construction</u></b>		
<u>New Residential &lt; 5 units and New Nonresidential Use &lt; 25,000 square feet</u>	<u>Title 24, Part 6 for Residential and Nonresidential</u>	<u>Residential and Nonresidential criteria as applicable to each component of the project.</u>
<u>New Residential &gt; 5 units and New Nonresidential Use ≥ 25,000 square feet</u>	<u>Title 24, Part 6 for Residential and-Nonresidential</u>	
<b><u>NONRESIDENTIAL PROJECTS (INCLUDE HOTEL<sup>±</sup>)</u></b>		
<b><u>New Construction</u></b>		
<u>New Nonresidential Buildings &lt; 5,000 square feet</u>	<u>Title 24, Part 6</u>	<u>Mandatory CalGreen Requirements</u>
<u>New Nonresidential Buildings 5,000 to 25,000 square feet</u>	<u>Title 24, Part 6</u>	<u>Meet the intent of LEED® Certified and Mandatory CalGreen Requirements</u>
<u>New Nonresidential Buildings &gt; 25,000 square feet</u>	<u>Title 24, Part 6</u>	<u>Meet the intent of LEED® Silver and Mandatory CalGreen Requirements</u>
<b><u>Tenant Improvements</u></b>		
<u>Building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of \$200,000 or above</u>	<u>Title 24, Part 6</u>	<u>Mandatory CalGreen Requirements</u>

**SEC. 8.20.16. Subsection 101.10.2 – Added.**

Subsection 101.10.2 is added to the 2013 California Green Building Standards Code to read as follows:

**101.10.2 Alternate green building standards.** If an applicant proposes to use an alternate green building standard not included in this code, they must demonstrate that the alternate standard is, at minimum, equivalent to the referenced standard in terms of criteria, scope and certification process. The chief building official must approve the alternate standard prior to issuing a building permit.

**SEC. 8.20.17. Subsection 101.10.3 – Added.**

Subsection 101.10.3 is added to the 2013 California Green Building Standards Code to read as follows:

**101.10.3 Certification.** The city does not require projects to be certified by a third-party green building organization unless certification is a condition of approval for a zoning permit. Applicants must demonstrate the project meets the intent of the required standard through documentation and verification consistent with the criteria and documentation process of the respective green building rating system. This includes meeting all mandatory prerequisites and minimum point totals of each category, if required by the rating system.

**SEC. 8.20.18. Subsection 101.11 – Amended.**

Subsection 101.11 of the 2013 California Green Building Standards Code is amended to read as follows:

**101.11 Effective use of this code.** The following steps shall be used to establish which provisions of this code are applicable to a specific occupancy:

1. Establish the type of occupancy.
2. Verify which state agency has authority for the established occupancy by reviewing the authorities list in Sections 103 through 106.
3. Once the appropriate agency has been identified, find the chapter which covers the established occupancy.
4. The Matrix Adoption Tables at the beginning of Chapters 4 and 5 identify the mandatory green building measures necessary to meet the minimum requirements of

this code for the established occupancy. Occupancies regulated by this code must also comply with the green building requirements included in Chapter 1.

5. Voluntary tier measures are contained in Appendix Chapters A4 and A5. A checklist containing each green building measure, both required and voluntary, is provided at the end of each appendix chapter. Each measure listed in the application checklist has a section number which correlates to a section where more information about the specific measure is available.

6. The application checklist identifies which measures are required by this code and allows users to check off which voluntary items have been selected to meet voluntary tier levels if desired or mandated by a city, county, or city and county.

**SEC. 8.20.19. Subsection 102.1 – Amended.**

Subsection 102.1 of the 2013 California Green Building Standards Code is amended to read as follows:

**102.1 Submittal documents.** Construction documents and other data shall be submitted in one (1) or more sets with each application for a permit. Where special conditions exist, the city is authorized to require additional construction documents to be prepared by the applicant or a licensed design professional, depending on the size of the project (see Section 102.4 for details) and may be submitted separately.

When submitting for building permits for a project regulated by this code, the applicant shall submit the following materials:

1. The appropriate completed green building checklist;
2. Project construction documentation (plans and specifications) that verifies incorporation of the design and construction-related credits;
3. A letter of acknowledgement from the applicant, licensed professional or qualified green building professional indicating the project has been designed to achieve the sustainability standards defined in this code and in accordance with the approved green building checklist. The letter shall indicate the number of points the project has been designed to achieve;
4. Any additional documentation such as maps, calculations or product information that would be required by U.S. Green Building Council's Green Building Certification Institute for LEED® certification or by Build It Green for GreenPoint Rated certification; and

5. Any additional information believed to be relevant by the city in determining that a good-faith effort has been made to comply with this code.

**Exception:** The enforcing agency is authorized to waive the submission of construction documents and other data not required to be prepared by a licensed design professional.

**SEC. 8.20.20. Subsection 102.2 – Amended.**

Subsection 102.2 of the 2013 California Green Building Standards Code is amended to read as follows:

**102.2 Information on construction documents.** Construction documents shall be of sufficient clarity to indicate the location, nature and scope of the proposed green building feature and show that it will conform to the provisions of this code, the California Building Standards Code and other relevant laws, ordinances, rules and regulations as determined by the city.

**SEC. 8.20.21. Subsection 102.3 – Amended.**

Subsection 102.3 of the 2013 California Green Building Standards Code is amended to read as follows:

**102.3 Hardship or infeasibility exemption.** If an applicant believes circumstances exist that make it a hardship or infeasible to meet the requirements of this code, the applicant may request an exemption. The applicant must still comply with the mandatory measures of the California Green Building Code and can only receive an exemption from the Mountain View amendments to the code. In applying for an exemption, the burden is on the applicant to show hardship or infeasibility. An exemption will only be granted in unusual circumstances where, due to exceptional characteristics of the structure or property involved, a literal enforcement of this code will result in practical difficulties or unnecessary hardships, provided that no such exception will be contrary to the intent of this code.

**SEC. 8.20.22. Subsection 102.3.1 – Added.**

Subsection 102.3.1 is added to the 2013 California Green Building Standards Code to read as follows:

**102.3.1 Proof of hardship or infeasibility.** The applicant shall submit a letter indicating the maximum threshold of compliance that is feasible for the project and the circumstances that create a hardship or make it infeasible to comply fully with this code.

**SEC. 8.20.23. Subsection 102.3.2 – Added.**

Subsection 102.3.2 is added to the 2013 California Green Building Standards Code to read as follows:

**102.3.2 Approval or denial of exemption.** The chief building official will determine if it is infeasible for the project to comply fully with this code and approve an alternative requirement. This alternative requirement can be the amount of green building measures required. For all approved exemptions, the project must continue to comply with the minimum requirements of the 2013 Building Energy Efficiency Standards (Title 24, Part 6) and the mandatory measures of the 2013 California Green Building Standards Code. The applicant will be notified of the final decision by the chief building official.

**SEC. 8.20.24. Subsection 102.4 – Added.**

Subsection 102.4 is added to the 2013 California Green Building Standards Code to read as follows:

**102.4 Verification.** Documentation of conformance for applicable green building measures shall be provided to the city. Alternate methods of documentation shall be acceptable when the city finds that the proposed alternate documentation is satisfactory to demonstrate substantial conformance with the intent of the proposed green building measure.

**SEC. 8.20.25. Subsection 102.4.1 – Added.**

Subsection 102.4.1 is added to the 2013 California Green Building Standards Code to read as follows:

**102.4.1 Self-verification.** The burden of proving compliance with this code is on the applicant. The verification professional must provide evidence of adequate green building compliance or documentation to the building division to satisfy the requirements of this code.

**SEC. 8.20.26. Subsection 102.4.1.1 – Added.**

Subsection 102.4.1.1 is added to the 2013 California Green Building Standards Code to read as follows:

**102.4.1.1 Verification professional.** The applicant or industry professional filing on behalf of the applicant must be the individual who verifies the project complies with the requirements of this code.

1. For residential additions and nonresidential tenant improvements regulated by this code, this individual can be a licensed industry professional, an authorized tenant or the property owner.

2. For all nonresidential and residential new construction projects regulated by this code, this individual must be a qualified green building professional with an industry license, such as an architect or contractor, or a professional with similar qualifications acceptable to the chief building official.

**SEC. 8.20.27. Subsection 102.4.2 – Added.**

Subsection 102.4.2 is added to the 2013 California Green Building Standards Code to read as follows:

**102.4.2 Noncompliance.** If, as a result of any inspection, the city determines the project does not or is unlikely to comply with the approved plans or green building program, a stop work order shall be issued if the inspector determines that continuation of construction activities will lessen the project's ability to meet the required compliance threshold. The stop work order shall remain in effect until the chief building official determines the project will be brought into compliance with the approved plans and/or verification documents.

**SEC. 8.20.28. Section 202 – Amended.**

Section 202 of the 2013 California Green Building Standards Code is amended to add the following definitions:

**ADDITION.** New construction square footage added to an existing structure.

**ALTERNATE GREEN BUILDING STANDARD.** A private, third-party green building rating system not explicitly referenced in this code that achieves green building goals through a comprehensive checklist of requirements. To use an alternate standard, the applicant must prove it is at least equivalent to the referenced green building standard.

**APPLICANT.** Any entity or any subsequent owner of the site that applies to the city for the applicable permits to undertake any project types regulated by this code.

**AREA OF IMPROVEMENT.** The area (in square feet) where interior building improvements are proposed. Such improvements can include, but are not limited to, painting, installing carpet or flooring, and replacing or upgrading mechanical, electrical or plumbing systems.

**CITY.** City means the City of Mountain View.

**ENFORCING AGENCY.** The community development department in the City of Mountain View as specified by this code.

**GREEN POINT RATED (GPR).** Refers to a residential green building rating system developed by Build It Green. Projects can use any of the adopted GPR checklists that most appropriately apply to the project type proposed.

**GREEN BUILDING CERTIFICATION INSTITUTE (GBCI™).** Oversees and administers the building certifications and professional designations for the U.S. Green Building Council's LEED® Green Building Rating Systems™.

**LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED®).** Refers to a green building rating system developed by the U.S. Green Building Council for residential and nonresidential projects. Projects can use any of the adopted LEED® checklists that most appropriately apply to the project type proposed.

**MEET THE INTENT.** To demonstrate compliance with the green building requirements of LEED® or GPR without formally submitting documentation to the U.S. Green Building Council's Green Building Certification Institute or Build It Green for verification and certification. The applicant must follow the approaches and procedures in the guidebook or reference guides for respective rating systems and submit the required documentation and verification materials as outlined in Section 102 of this code to the community development department. This includes meeting all mandatory prerequisites and minimum point totals of each category, if required per the rating system.

**MIXED-USE.** The construction of a building or buildings that include both commercial and residential uses.

**NONRESIDENTIAL BUILDING.** Any building constructed or occupied for a use other than residential, which may include, but is not limited to, commercial or hotel uses.

PROJECT. Any proposed development that is regulated by this code.

QUALIFIED GREEN BUILDING PROFESSIONAL. A licensed professional, such as an architect or contractor, trained through the Green Building Certification Institute as a LEED AP® or through Build It Green as a certified green building professional, or similar qualifications if acceptable to the chief building official.

SELF-VERIFICATION. Verification by the applicant or a qualified green building professional that the project has met the standards as indicated for the project type set forth in this code.

SQUARE FEET (GROSS). The gross square footage of a structure includes all floor area enclosed within the walls of the structure (measured from the outside perimeter of the wall).

TENANT IMPROVEMENTS. Any owner or authorized agent who intends to enlarge, alter or change the occupancy of a building or structure, or to erect, enlarge, alter or convert any electrical, gas, mechanical or plumbing system, the installation of which is regulated by the California Building Code, or to cause any such work to be done, shall obtain the required permit and must comply with the requirements included in this code.

ZONING PERMIT. Any discretionary permit approval from the planning division that includes conditions of approval.

SEC. 8.20.29. Subsection 303.1.1. – Amended.

Subsection 303.1.1 of the 2013 California Green Building Standards Code is amended to read as follows:

303.1.1 Tenant improvements. The provisions of this code shall apply to the applicable tenant or occupant improvements to a project.

SEC. 8.20.30. Subsection 4.106.2 – Amended.

Subsection 4.106.2 of the 2013 California Green Building Standards Code is amended to read as follows:

4.106.2 Stormwater drainage and retention during construction. Projects which disturb less than one (1) acre of soil and are not part of a larger common plan of development which in total disturbs one (1) acre or more, shall manage stormwater drainage during construction. In order to manage stormwater drainage during

construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site.

1. Retention basins of sufficient size shall be utilized to retain stormwater on the site.

2. Where stormwater is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.

3. Stormwater pollutant control measures must be installed at construction sites year round, in compliance with-Section 35.32.10.1(T) of the Mountain View City Code. The stormwater pollutant control measures listed in the ordinance include erosion control, run-on and runoff control, sediment control, active treatment (as appropriate), good site management and nonstormwater management through all phases of construction until the site is fully stabilized by landscaping or the installation of permanent erosion control measures.

**SEC. 8.20.31. Subsection 4.304.1 – Amended.**

Subsection 4.304.1 of the 2013 California Green Building Standards Code is amended to read as follows:

**4.304.1 Compliance with local water-efficient landscape ordinance.** Projects with landscape areas of **one thousand (1,000)** square feet or greater must comply with the City of Mountain View’s Water Conservation in Landscaping Regulations, pursuant to Chapter 36, Article XII-A, Division A36.32 of the city code. Projects with landscape areas of less than **one thousand (1,000)** square feet must comply with the requirements of Section 4.304.2 of this code.

1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants’ needs as weather conditions change.

2. Weather- and soil moisture-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s).

**Note:** More information regarding irrigation controller function and specifications is available from the irrigation association.

**SEC. 8.20.32. Subsection 4.408.1 – Amended.**

Subsection 4.408.1 of the 2013 California Green Building Standards Code is amended to read as follows:

**4.408.1 Compliance with local construction and demolition debris diversion program.** Projects adding or constructing **five thousand (5,000)** square feet or more of new floor area must comply with the City of Mountain View’s Construction and Demolition Debris Ordinance, pursuant to Chapter 16, Article III of the **city code**. Projects adding or constructing **five thousand (5,000)** square feet or less of new floor area, if subject to this code, must comply with the requirements of Section 4.408 of this code.

**SEC. 8.20.33. Subsection 4.408.1.1 – Added.**

Subsection 4.408.1.1 is added to the 2013 California Green Building Standards Code to read as follows:

**4.408.1.1 Construction waste reduction of at least **fifty (50)** percent.** Recycle and/or salvage for reuse a minimum of **fifty (50)** percent of the nonhazardous construction and demolition debris, or meet a local construction and demolition waste management ordinance, whichever is more stringent.

**Exceptions:**

1. Excavated soil and land-clearing debris.

2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the job site.

**SEC. 8.20.34. Subsection 4.408.3 – Added.**

Subsection 4.408.3 is added to the 2013 California Green Building Standards Code to read as follows:

**4.408.3 Excavated soil and land clearing debris.** One hundred **(100)** percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on-site until the storage site is developed.

**SEC. 8.20.35. Subsection 4.410.2 – Added.**

Subsection 4.410.2 is added to the 2013 California Green Building Standards Code to read as follows:

**4.410.2 Recycling by occupants.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of nonhazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics and metals.

**SEC. 8.20.36. Subsection 4.410.2.1 – Added.**

Subsection 4.410.2.1 is added to the 2013 California Green Building Standards Code to read as follows:

**4.410.2.1 Sample ordinance.** Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the [Public Resources Code](#). Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act).

**SEC. 8.20.37. Subsection 4.503.1 – Amended.**

Subsection 4.503.1 of the 2013 California Green Building Standards Code is amended to read as follows:

**4.503.1 General.** Any installed gas fireplace shall be a direct-vent, sealed-combustion type. Any installed wood stove or pellet stove shall comply with U.S. EPA Phase II emission limits where applicable. Wood stoves, pellet stoves and fireplaces shall also comply with applicable local ordinances. Mountain View [City Code](#) Chapter 8, Article 1, Division IV shall be referenced for wood-burning appliances.

**SEC. 8.20.38. Subsection 4.504.2.4 – Amended.**

Subsection 4.504.2.4 of the 2013 California Green Building Standards Code is amended to read as follows:

**4.504.2.4 Verification.** Verification of compliance with this section shall be provided at the request of the City of Mountain View. Documentation may include, but is not limited to, the following:

1. Manufacturer's product specification.
2. Field verification of on-site product containers.

**SEC. 8.20.39. Subsection 5.106.1 – Amended.**

Subsection 5.106.1 of the 2013 California Green Building Standards Code is amended to read as follows:

**5.106.1 Stormwater sediment and erosion control plan.** For newly constructed projects of less than one (1) acre, develop and implement a stormwater sediment and erosion control plan that has been designed specific to its site. The stormwater sediment and erosion control plan shall be developed to provide equivalent protection to projects regulated by the state stormwater NPDES construction permit (greater than one (1) acre of disturbed land), and Section 35.32.10.1(T) in accordance with the Mountain View City Code. The stormwater pollutant control measures that shall be included in the plan are erosion control, run-on and runoff control, sediment control, advanced treatment (as appropriate), good site management and nonstormwater management through all phases of construction until it is fully stabilized by landscaping or the installation of permanent erosion control measures.

**Note:** No state permit is required, but construction best management practices (BMP) as approved by the City of Mountain View shall be followed. BMP include, but are not limited to, the following:

1. Erosion and sediment control BMP:
  - a. Scheduling construction activity;
  - b. Preservation of natural features, vegetation and soil;
  - c. Drainage swales or lined ditches to control stormwater flow;
  - d. Mulching or hydroseeding to stabilize soils;
  - e. Erosion control covers to protect slopes;
  - f. Protection of storm drain inlets (gravel bags or catch basin inserts);
  - g. Perimeter sediment control (perimeter silt fence, fiber rolls);
  - h. Sediment trap or sediment basin to retain sediment on-site;
  - i. Stabilized construction exits;
  - j. Wind erosion control.

2. Housekeeping BMP:

- a. Material handling and waste management;
- b. Building materials stockpile management;
- c. Management of washout areas (concrete, paints, stucco, etc.);
- d. Control of vehicle/equipment fueling to contractor's staging area;
- e. Vehicle and equipment cleaning performed off-site;
- f. Spill prevention and control.

**SEC. 8.20.40. Subsection 5.302.1 – Amended.**

Subsection 5.302.1 of the 2013 California Green Building Standards Code is amended to add the following definition:

**NEW WATER SERVICE.** A site that has not been connected to the city's water distribution system as determined by the public works department.

**SEC. 8.20.41. Subsection 5.304.1 – Amended.**

Subsection 5.304.1 of the 2013 California Green Building Standards Code is amended to read as follows:

**5.304.1 Compliance with Local Water-Efficient Landscape Ordinance.** Projects with landscape areas of one thousand (1,000) square feet or greater must comply with the city's Water Conservation in Landscaping Regulations, pursuant to Chapter 36, Article XII-A, Division A36.32 of the city code. Projects with landscape areas of less than one thousand (1,000) square feet must comply with the requirements of Section 5.304.

**SEC. 8.20.42. Subsection 5.304.2 – Amended.**

Subsection 5.304.2 of the 2013 California Green Building Standards Code is amended to read as follows:

**5.304.2 Water budget.** A water budget shall be developed for landscape irrigation use that conforms to the Local Water-Efficient Landscape Ordinance or to the California Department of Water Resources Model Water-Efficient Landscape Ordinance where no local ordinance is applicable.

**SEC. 8.20.43. Subsection 5.304.3 – Amended.**

Subsection 5.304.3 of the 2013 California Green Building Standards Code is amended to read as follows:

**5.304.3 Outdoor potable water use.** For new water service for landscaped areas between **one thousand (1,000)** square feet and **five thousand (5,000)** square feet (the level at which Water Code **Section 535** applies), separate meters or submeters shall be installed for indoor and outdoor potable water use.

**SEC. 8.20.44. Subsection 5.304.4 – Amended.**

Subsection 5.304.4 of the 2013 California Green Building Standards Code is amended to read as follows:

**5.304.4 Irrigation design.** In new nonresidential construction with between **one thousand (1,000)** and **two thousand five hundred (2,500)** square feet of landscaped area (the level at which the Model Water-Efficient Landscape Ordinance (MLO) applies), install irrigation controllers and sensors which include the following criteria and meet manufacturer’s recommendations.

**SEC. 8.20.45. Subsection 5.304.4.1 – Amended.**

Subsection 5.304.4.1 of the 2013 California Green Building Standards Code is amended to read as follows:

**5.304.4.1 Irrigation controllers.** Automatic irrigation system controllers installed at the time of final inspection shall comply with the following:

1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants’ needs as weather conditions change.

2. Weather- and soil moisture-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.

**SEC. 8.20.46. Subsection 5.408.1 – Amended.**

Subsection 5.408.1 of the 2013 California Green Building Standards Code is amended to read as follows:

**5.408.1 Compliance with local construction and demolition debris diversion program.** Projects adding, constructing or renovating **five thousand (5,000)** square feet or more of floor area must comply with the City of Mountain View's Construction and Demolition Debris Diversion Ordinance, pursuant to Chapter 16, Article III of the **city code**. Projects adding or constructing **five thousand (5,000)** square feet or less of floor area, if subject to this code, must comply with the requirements of Section 5.408 of this code.

**SEC. 8.20.47. Subsection 5.408.1.1 – Added.**

Subsection 5.408.1.1 is added to the 2013 California Green Building Standards Code to read as follows:

**5.408.1.1 Construction waste diversion.** Establish a construction waste management plan for the diverted materials, or meet local construction and demolition waste management ordinance, whichever is more stringent.

**SEC. 8.20.48. Subsection 5.503.1 – Amended.**

Subsection 5.503.1 of the 2013 California Green Building Standards Code is amended to read as follows:

**5.503.1 General.** Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed wood stove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Wood stoves, pellet stoves and fireplaces shall comply with applicable local ordinances. Mountain View **City Code Chapter 8, Article 1, Division IV** shall be referenced for wood-burning appliances.

**SEC. 8.20.49. Subsection 5.504.4.3.2 – Amended.**

Subsection 5.504.4.3.2 of the 2013 California Green Building Standards Code is amended to read as follows:

**5.504.4.3.2 Verification.** Verification of compliance with this section shall be provided at the request of the City of Mountain View. Documentation may include, but is not limited to, the following:

1. Manufacturer’s product specification.
2. Field verification of on-site product containers.”

Section 5. Article II is hereby added to Chapter 8 of the Mountain View City Code, to read as follows:

**“ARTICLE II.  
PLUMBING CODE.**

**SEC. 8.30.1. 2013 California Plumbing Code adopted.**

The California Plumbing Code, 2013 edition, first printing, including Appendices A, D and I, based on the 2012 Uniform Plumbing Code, promulgated by the International Association of Plumbing and Mechanical Officials Association, 4755 East Philadelphia Street, Ontario, California, 91761-2816, which regulates the erection, installation, alteration, repair, relocation, removal, replacement, conversion, use and maintenance of plumbing, gas, drainage systems and other similar work in order to provide minimum requirements and standards for the protection of the public health, safety and welfare; is adopted and by this reference made a part of this municipal code with the same force and effect as though set out herein in full. One (1) copy of the California Plumbing Code is on file for public inspection in the building inspection office.

**SEC. 8.30.2. Subsection 101.1 amended – Administration.**

Subsection 101.1 of the California Plumbing Code is amended to read as follows:

**101.1. Title.** This document shall be known as the “California Plumbing Code” and may be cited as such and will be refer to herein as “this code.” Administrative provisions of the California Plumbing Code are referenced to the California Building Code, Chapter 1, Division II for provisions.

**SEC. 8.30.3. Subsection 103.9 added – Procedure for appeals.**

Subsection 103.9 of the California Plumbing Code is added, to read as follows:

**103.9. Procedure for appeals.** The provisions of Section 8.10.16 of this code are hereby incorporated by reference as if fully set forth herein. When Section 8.10.16 is used in reference to a plumbing code appeal, the term “Plumbing Permit” shall replace the term “Building Permit” in said section.”

Section 6. Article III is hereby added to Chapter 8 of the Mountain View City Code, to read as follows:

**“ARTICLE III.  
MECHANICAL CODE.**

**SEC. 8.40.1. California Mechanical Code – Adopted.**

The California Mechanical Code, 2013 edition, first printing, including all Appendices, based on the 2012 Uniform Mechanical Code, promulgated by the International Association of Plumbing and Mechanical Officials, 4755 East Philadelphia Street, Ontario, California, 91761-2816, including all appendices, which regulates and provides complete requirements for the installation and maintenance of heating, ventilating, comfort cooling and refrigeration systems, is adopted and by reference and made a part of this municipal code with the same force and effect as though set out herein in full. One (1) copy of the 2013 California Mechanical Code is on file and open to public inspection in the building inspection office.

**SEC. 8.40.2. Chapter 1, Division II amended – Administration.**

Subsection 101.1 of the California Mechanical Code is amended to read as follows:

**101.1. Title.** This document shall be known as the “California Mechanical Code” and may be cited as such and will be referred to herein as “this code.” Administrative provisions of the California Mechanical Code are referenced to the California Building Code, Chapter 1, and Division II for provisions.

**SEC. 8.40.3. Subsection 110.1 amended – General.**

Subsection 110.1 of the California Mechanical Code is amended to read as follows:

**110.1. Procedure for appeals.** The provisions of Section 8.10.16 of this code are hereby incorporated by reference as if fully set forth herein. When Section 8.10.16 is

used in reference to a Mechanical Code appeal, the term “Mechanical Permit” shall replace the term “Building Permit” in said section.”

Section 7. Article IV is hereby added to Chapter 8 of the Mountain View City Code, to read as follows:

**“ARTICLE IV.  
ELECTRICAL CODE.**

**SEC. 8.50.1. 2013 California Electrical Code – Adopted – Short title.**

The California Electrical Code, 2013 edition, based on the 2012 National Electrical Code, promulgated by the National Fire Protection Association (NFPA), One Batterymarch Park (P.O. Box 9146), Quincy, Massachusetts, 02269-9959, which establishes minimum standards to protect the health, safety and general welfare of the occupant and the public against hazards that may arise from the use of electricity by governing the design, construction, reconstruction, installation, quality of materials, location, operation and maintenance or use of electrical equipment, wiring and systems, is adopted and by reference made a part of this municipal code with the same force and effect as though set out herein in full. One (1) copy of the 2013 California Electrical Code is on file and open to public inspection in the building inspection office.”

**SEC. 8.50.2. Subsection 89.101.1 amended – Title.**

Subsection 89.101.1 of the California Electrical Code is amended to read as follows:

**89.101.1 Title.** This document shall be known as the “California Electrical Code” and may be cited as such and will be referred to herein as “this code.” Administrative provisions of the California Electrical Code are referenced to the California Building Code, Chapter 1, and Division II for provisions.

**SEC. 8.50.3. Section 89.108.8 amended – Appeals Board.**

Subsection 89.108.8 of the California Electrical Code is amended to read as follows:

**89.108.8.1. Procedure for appeals.** The provisions of Section 8.10.16 of this code are hereby incorporated by reference as if fully set forth herein. When Section 8.10.16 is used in reference to an Electrical Code appeal, the term “Electrical Permit” shall replace the term “Building Permit” in said section.”

Section 8. Article V is hereby added to Chapter 8 of the Mountain View City Code, to read as follows:

**“ARTICLE V.**  
**2012 INTERNATIONAL PROPERTY MAINTENANCE CODE.**

**SEC. 8.60.1. 2012 International Property Maintenance Code.**

The International Property Maintenance Code, 2012 edition, promulgated by the International Code Council, which provides minimum requirements for the protection of life, limb, health, property, safety and welfare of the general public and the owners and occupants of residential buildings, is adopted and by reference made a part of this code with the same force and effect as though set out in full in this chapter. One (1) copy of the International Property Maintenance Code is on file and open to public inspection in the building inspection office.

**SEC. 8.60.2. Subsection 101.1 amended – Title.**

Subsection 101.1 of the International Property Maintenance Code is amended to read as follows:

**101.1 Title.** This document shall be known as the “International Property Maintenance Code of the City of Mountain View” and may be cited as such and will be referred to herein as “this code.” Administrative provisions of the International Property Maintenance Code are referenced to the California Building Code, Chapter 1, and Division II for provisions.

**SEC. 8.60.3. Section 103 amended – Department of Property Maintenance Inspection.**

Section 103 of the International Property Maintenance Code is amended to read as follows:

**103. Property Maintenance.**

**103.1 General.** The building inspection division of the community development department is hereby responsible for the enforcement of this code and the chief building official shall be the executive official in charge. Code official shall mean chief building official as referenced herein.

**SEC. 8.60.4. Section 111 amended – Means of appeal.**

Section 111 of the International Property Maintenance Code is amended to read as follows:

**111. Procedure for appeals.** Any owner or owner representative who is in disagreement with the chief building official’s interpretation of any provision of this code may appeal the chief building official’s interpretation to the city council of the city. All such appeals shall be filed within ten (10) working days after the date the chief building official renders an interpretation of any provision of this code. All appeals shall be in writing, shall be filed with the city clerk, shall state the ground or grounds of appeal and shall be accompanied by a nonrefundable fee of two hundred fifty dollars (\$250). Within sixty (60) calendar days after an appeal is filed, or as soon thereafter as possible, the appeal shall be heard by the city council. The city clerk shall give at least five (5) days prior written notice to the applicant of the date, time and place for the hearing on said appeal. The city council shall not be required to give public notice of said hearing. The applicant shall be entitled to present any oral and/or written evidence at said hearing. Any hearing held pursuant to this section may be continued from time to time by the city council. Within twenty-one (21) days after the hearing is closed, the council shall announce its decision. All decisions of the city council on any appeal shall be final. Any action to challenge, annul or contest the validity of any decision of the city council on any such appeal shall be filed no later than sixty (60) calendar days after the date the city council has adopted a resolution formalizing its decision on the appeal.

**SEC. 8.60.5. Subsection 201.3 amended – Terms defined in other codes.**

Subsection 201.3 of the International Property Maintenance Code is amended to read as follows:

**201.3. Terms defined in other codes.** Where terms are not defined in this code and are defined in the California Building, Fire, Plumbing, Mechanical and Electrical Code or NFPA 70, such terms shall have the meanings ascribed to them as stated in those codes. Where this code refers to “International” Building, Fire, Plumbing, Mechanical or other International Codes, the term international shall be replaced with the word “California.”

Section 9. The provisions of this ordinance shall be effective at least thirty (30) days from and after the date of its adoption, but no sooner than January 1, 2014.

Section 10. If any section, subsection, sentence, clause, or phrase of this ordinance is for any reason held to be unconstitutional, such decision shall not affect the validity of the other remaining portions of this ordinance. The City Council hereby declares that

it would have passed this 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 unconstitutional.

Section 11. Pursuant to Section 522 of the Mountain View City Charter, it is ordered that copies of the foregoing proposed ordinance be posted at least two (2) days prior to its adoption in three (3) prominent places in the City and that a single publication be made to the official newspaper of the City of a notice setting forth the title of the ordinance, the date of its introduction, and a list of the places where copies of the proposed ordinance are posted.

Section 12. This ordinance is not subject to the California Environmental Quality Act (CEQA) pursuant to Sections 15060(c)(2) of the CEQA Guidelines (Title 14, Chapter 3 of the California Code of Regulations) (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment) and 15060(c)(3) of the CEQA Guidelines (because it has no potential for resulting in physical change to the environment, directly or indirectly).

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AG/2/ORD  
808-10-08-13o-E-so

ORDINANCE NO.

AN ORDINANCE AMENDING CHAPTER 14, ARTICLES I, II, AND III, OF THE MOUNTAIN VIEW CITY CODE, RELATING TO THE ADOPTION OF THE 2012 INTERNATIONAL FIRE CODE, INCORPORATING BY REFERENCE THE AMENDMENTS ADOPTED BY THE STATE OF CALIFORNIA TO ESTABLISH THE 2013 CALIFORNIA FIRE CODE

THE CITY COUNCIL OF THE CITY OF MOUNTAIN VIEW DOES HEREBY ORDAIN:

Section 1. Council Findings. A local entity such as the City of Mountain View must adopt the International Fire Code prior to January 1, 2014 if the local agency desires to maintain local control and allow for amendments to the International Fire Code in order to accommodate local requirements for local conditions. The City of Mountain View has local conditions which require amendments to the International Fire Code.

Section 2. Articles I, II, and III of Chapter 14 of the Mountain View City Code are hereby amended to read as follows:

**"ARTICLE I.  
FIRE PREVENTION CODE.**

**SEC. 14.10.1. Adoption of ~~California~~ the International Fire Code and the International-California Fire Code.**

The city hereby adopts for the purpose of prescribing regulations governing conditions hazardous to life and property from fire or explosion, that certain code known as the ~~California-International~~ Fire Code, 2012 Edition, including ~~Appendix Chapter 4~~, Appendixes ~~B, BB, and F, J~~ of the ~~California-International~~ Fire Code, with the amendments adopted by the State of California, including Appendix K, to establish the California Fire Code, 2013 Edition, standards published by the International Code Council, Inc., ~~being particularly the 2010 Edition~~ thereof and the whole thereof, save and except such portions as are hereinafter changed, deleted modified or amended, ~~for nonstate regulated occupancies~~ as defined in California Fire Code ~~Sections~~ Section 1.1.3.11.1.8 and 1.1.3.2. ~~The city hereby also adopts certain provisions of the International Fire Code as referenced herein.~~ A copy of said code has been and is now filed in the office of the fire marshal of the City of Mountain View, and the same, as amended herein, is hereby adopted by reference and incorporated as fully as if set out

at length herein, and from the date on which this section shall take effect, the provisions thereof shall be controlling within the limits of the City of Mountain View.

**SEC. 14.10.2. Definitions.**

a. Wherever the word “municipality” is used in the [California International](#) Fire Code, it shall mean the city.

b. Wherever the term “corporation counsel” is used in the [California International](#) Fire Code, it shall mean the city attorney.

c. “Fire and environmental protection division” includes those employees of the fire department who have the duty of enforcing this code in accordance with and pursuant to California Penal Code Sections [830.37](#), 836.5 and 853.6, to arrest persons for violations of such ordinances or statutes and issue notice to appear citations as provided by law. Within the Mountain View city limits, this term shall refer to the fire prevention personnel, hazardous materials personnel, fire marshal and other fire department personnel so designated by the fire chief.

**SEC. 14.10.3. Section 101.6 added, ~~7~~ – Administration; ~~z~~ General.**

Section 101.6 is added to the [California International](#) Fire Code, to read as follows:

**101.6. Fire Protection.** The adoption of this code is a reflection of levels of protection of “built-in” fire protection equipment which shall be required in order to provide an adequate level of fire protection to the community at a reasonable cost. Anyone constructing or using properties or processes or engaging in other activities which constitute a potentially higher demand on fire department staffing requirements than are planned for may be required to install automatic fire extinguishing systems, fire protection equipment or such other safeguards that will make it possible to provide an adequate fire protection service with the city’s normal fire department capability.

**SEC. 14.10.4. Section 102.10 amended, ~~7~~ – Applicability.**

Section 102.10 of the [California International](#) Fire Code is amended to read as follows:

**102.10. Conflicting provisions.** Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where there is a conflict between requirements in this code and requirements in other local, state or federal laws, regulations or ordinances, the more restrictive shall be applicable.

**SEC. 14.10.5. Table 105.6.8 deleted, ~~Permits.~~**

Table 105.6.8 of the [California International](#) Fire Code is deleted.

**SEC. 14.10.6. Table 105.6.10 deleted, ~~Permits.~~**

Table 105.6.10 of the [California International](#) Fire Code is deleted.

**SEC. 14.10.7. Table 105.6.20 deleted, ~~Permits.~~**

Table 105.6.20 of the [California International](#) Fire Code is deleted.

**SEC. 14.10.8. Section 105.6.10 amended, ~~Permits.~~**

Section 105.6.10 of the [California International](#) Fire Code is amended to read as follows:

**105.6.10. Cryogenic fluids.** An operational permit is required to store, handle or use cryogenic fluids in aboveground tanks.

**SEC. 14.10.9. Section 105.6.16 amended, ~~Permits.~~**

Section 105.6.16 of the [California International](#) Fire Code is amended to read as follows:

**105.6.16. Flammable and combustible liquids ~~in Tanks.~~** An operational permit is required to store, handle or use flammable or combustible liquids in excess of local permit thresholds, or in any quantity in aboveground or belowground storage tanks.

**SEC. 14.10.10. Section 105.6.20 amended – Permits.**

Section 105.6.20 of the International Fire Code is amended to read as follows:

**105.6.20. Hazardous materials.** An operational permit is required to store, transport on-site, dispense, use or handle hazardous materials in excess of local permit thresholds.

**SEC. 14.10.1011. Section 105.6.47 ~~amended~~added – Additional Ppermits.**

Section 105.6.47 of the ~~California~~International Fire Code is ~~amended~~added to read as follows:

**105.6.47. Additional permits.** In addition to the permits required by Section 105.6, the following operational permits shall be obtained from the Bureau of Fire Prevention prior to engaging in the following uses, activities, operations, practices or functions:

1. **Production facilities.** To change use or occupancy, or allow the attendance of a live audience, or for wrap parties.

2. **Pyrotechnics and special effects.** To use pyrotechnic special effects, open flame, use of flammable or combustible liquids and gases, welding, and the parking of motor vehicles in any building or location used for the purpose of motion picture, television or commercial production.

3. **Live audiences.** To install seating arrangements for live audiences in approved production facilities, production studios and sound stages. ~~See Chapter 48.~~

4. Temporary haunted house, ghost walks and similar amusements. ~~An operational permit is required to operate a Haunted House.~~

5. **High-rises.** High-rise buildings as defined in ~~Title 19 CAC and~~ Health and Safety Code Section 13210 and California Building Code. ~~An operational permit is required to operate a high-rise building.~~

6. **Licensed facilities.** ~~An operational permit is required to~~To operate a state-licensed facility, including community care, residential care for the elderly and ~~child~~ day care.

~~7. **Temporary membrane structures, tents and canopies.** An operational permit is required to operate a tent or temporary membrane structure having an area in excess of 200 square feet, or any canopy in excess of 400 square feet.~~

**~~SEC. 14.10.11. Section 105.7.14 amended, Permits.~~**

~~Section 105.7.14 of the California Fire Code is amended to read as follows:~~

~~**105.7.14. Temporary Membrane Structures, Tents and Canopies.** A permit is required to install, erect or assemble a tent or temporary membrane structure having an area in excess of 200 square feet, or any canopy in excess of 400 square feet.~~

**SEC. 14.10.12 Section 113.6 added, ~~7~~ Fees.**

Section 113.6 is added to the [California-International](#) Fire Code, to read as follows:

**113.6. Local fees.**

1. The fees for the primary inspection, first reinspection and any inspection thereafter shall be established by council resolution.

2. The fees for special inspections of temporary installations/events shall be established by council resolution. These shall include, but not be limited to: fireworks displays, pyrotechnic displays, temporary membrane structures (tents, canopies); carnivals, parades, fairs, haunted houses, Christmas tree lots, pumpkin patches, etc.

3. The fees for fire permits, as described in Chapter 1, Section 105, shall be established by council resolution.

4. Late fees (~~130 days past due~~[paid after permit expiration date](#)) for fire permits, as described in Chapter ~~1~~[Section 1, Section](#) 105, shall be established by council resolution.

5. Maintenance fees for fire protection or extinguishing systems shall be established by council resolution. These shall include, but not be limited to: fire alarm systems, sprinkler systems, standpipe systems, hood and duct systems, private fire hydrants, etc.

6. The fee for preventable false fire alarms shall be established by council resolution.

**SEC. 14.10.13. Section 202, amended, ~~7~~ Definitions.**

Section 202 of the [California-International](#) Fire Code is amended to include the following definitions ~~and shall read~~:

[Continuous Gas Detection System](#) shall mean a gas detection system where the analytical instrument is maintained in continuous operation and sampling is performed without interruption. Analysis is allowed to be performed on a cyclical basis at intervals not to exceed thirty (30) minutes. In occupied areas where air is recirculated and not exhausted to a treatment system (e.g., breathing zone), the fire code official may require a cyclical basis at intervals not to exceed five (5) minutes. The gas detection system shall be able to detect the presence of a gas at or below the permissible exposure limit in occupied areas and at or below one-half (1/2) IDLH (or 0.05 LC<sub>50</sub> if no established IDLH) in unoccupied areas.

Maximum Threshold Quantity (MAX TQ) is the maximum quantity of a moderately toxic or toxic gas, which may be stored in a single vessel before a more stringent category or regulation is applied. The following equation shall be used to calculate the Max TQ:

$$\text{Max TQ (pounds)} = \text{LC}_{50} \text{ (ppm)} \times 2 \text{ pounds}$$

For gas mixtures containing one or more toxic, highly toxic or moderately toxic components, LC<sub>50</sub> shall be calculated using CGA Standards P-20 and P-23 as referenced in Appendix E, Section 103.1.3.1.

**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) or teratogens (effects on fetuses). Other health hazard materials ~~additionally~~ include carcinogens and radioactive materials. See also Section 2702.1 – Health Hazard.

**Sensitizer** is a chemical that causes a substantial proportion of exposed people or animals to develop an allergic reaction in normal tissue after repeated exposure to the chemical.

**Temporary** shall mean not to exceed one (1) year.

~~Waste Oil is defined as those waste liquids resulting from the use of Class III-B combustible fluids such as waste motor oil, hydraulic oil, lubricating oil, brake fluids and transmission fluids.~~

**Workstation** is a defined space or independent principal piece of equipment using hazardous materials where a specific function, laboratory procedure or research activity occurs. Approved or listed hazardous materials storage cabinets, flammable liquid storage cabinets or gas cabinets serving a workstation are included as part of the workstation. A workstation is allowed to contain ventilation equipment, fire protection devices, electrical devices, and other processing and scientific equipment.

**SEC. 14.10.14. Section 311.5-1 ~~deleted~~ amended, Placards – Vacant premises.**

Section 311.5-1 of the California International Fire Code is ~~deleted~~ amended to read as follows:-

311.1. General. Temporary unoccupied buildings, structures, premises or portions thereof, including tenant spaces, shall be safeguarded and maintained in accordance with Sections 311.1.1 through 311.4.

**SEC. 14.10.15. Section 316.6-7 added, ~~—~~ Hazard to ~~F~~firefighters.**

Section 316.6-7 is added to the California-International Fire Code, to read as follows:

**316.6.7 Roof, ~~G~~guardrails at ~~I~~interior ~~C~~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 forty-two (42) inches in height above the adjacent roof surface that can be walked on. Intermediate rails shall be designed and spaced such that a twelve (12)- inch diameter sphere cannot pass through.

**EXCEPTION:**

Where the roof opening is greater than six hundred (600) square feet in area.

**SEC. 14.10.16. ~~Section 401.5 amended~~Chapter 4 of the International Fire Code is not adopted, ~~E~~emergency ~~P~~planning and ~~P~~preparedness, ~~G~~General.**

~~Section 401.5 of the California Fire Code is amended to read as follows:~~

~~**401.5. Making False Report.** It shall be unlawful for any person to give, signal or transmit or for any person to cause or permit to be given, signaled or transmitted in any manner any false alarm. The fee for such false alarm shall be set by council resolution.~~

**SEC. 14.10.17. ~~Section 401.7 amended, Emergency Planning and Preparedness, General.~~**

~~Section 401.7 of the California Fire Code is amended to read as follows:~~

~~**401.7. Unplanned Evacuation.** Evacuation made necessary by the unplanned evacuation of a fire alarm system or by any other emergency may be substituted for a required evacuation drill only when approved by the Fire Code Official.~~

~~SEC. 14.10.18. — Section 404.2 amended, Fire Safety and Evacuation Plans.~~

~~— Section 404.2 of the California Fire Code is amended to read as follows:~~

~~— **404.2. Where Required.** An approved fire safety and evacuation plan shall be prepared and maintained for the following occupancies and buildings.~~

~~— 1. Group A buildings having an occupant load of 100 or more persons.~~

~~— 2. Group B buildings have an occupant load of 500 or more persons.~~

~~— 3. Group E. See Section 3.13 Title 19, CCR.~~

~~— 4. Group F buildings having occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.~~

~~— 5. Group H.~~

~~— 6. Group I. See Section 3.09 Title 19, CCR.~~

~~— 7. Group R-1. See Section 3.09 Title 19, CCR.~~

~~— 8. Group R-2 college and university buildings.~~

~~— 9. Group R-4.~~

~~— 10. High rise buildings. See Section 309, Title 19, CCR.~~

~~— 11. Group M buildings having an occupant load of 500 or more persons.~~

~~— 12. Covered malls exceeding 50,000 square feet (4,645 m<sup>2</sup>) in aggregate floor area.~~

~~— 13. Underground buildings.~~

~~SEC. 14.10.19. — Section 404.3.1 amended, Fire Safety and Evacuation Plans.~~

~~— Section 404.3.1 of the California Fire Code is amended to read as follows:~~

~~— **404.3.1. Fire Evacuation Plans.** Fire evacuation plans shall include the following:~~

~~— 1. Emergency egress or escape routes and whether evacuation of the building is to be complete or, where approved, by selected floors or areas only.~~

~~2. Description of what the fire alarm, if required, sounds and looks like (audible and visual warning devices).~~

~~3. Procedures for registered rescue for persons unable to use the general means of egress unassisted.~~

~~4. Procedures for employees who must remain to operate critical equipment before evacuating.~~

~~5. Procedures for accounting for employees and occupants after evacuation has been completed.~~

~~6. Identification and assignment of personnel responsible for rescue or emergency medical aid.~~

~~7. The preferred and any alternative means of notifying occupants of a fire or emergency.~~

~~8. The preferred and any alternative means of reporting fires and other emergencies to the fire department or designated emergency response organization.~~

~~9. Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.~~

~~10. A description of the emergency voice/alarm communication system alert tone and preprogrammed voice message, where provided.~~

~~**SEC. 14.10.20. Table 405.2 amended, Fire and Evacuation Drill Frequency and Participation.**~~

~~Table 405.2 of the California Fire Code is amended to read as follows:~~

**TABLE 405.2  
FIRE AND EVACUATION DRILL  
FREQUENCY AND PARTICIPATION**

<b>GROUP OR OCCUPANCY</b>	<b>FREQUENCY</b>	<b>PARTICIPATION</b>
Group A	Quarterly	Employees
Group B <sup>e</sup>	Annually	Employees
Group E	See Section 3.13 Title 19, CCR	
Group F	Annually	Employees
Group I	See Section 3.09 Title 19, CCR	

Group R-1	See Section 3.09 Title 19, CCR	
Group R-2 <sup>d</sup>	Two annually	All occupants
Group R-4	Quarterly on each shift	Employees <sup>d</sup>
High-rise Buildings <sup>e</sup>	See Section 3.13 Title 19, CCR	

~~b— Fire and evacuation drills in residential care assisted living facilities shall include complete evacuation of the premises in accordance with Section 408.10.5. Where occupants receive habitation or rehabilitation training, fire prevention and fire safety practices shall be included as part of the training program.~~

~~e— Group B buildings having an occupant load of 500 or more persons.~~

~~d— Applicable to Group R-2 college and university buildings only.~~

~~e— Applicable to high-rise office buildings only.~~

~~SEC. 14.10.21.— Section 408.2.2 deleted, Announcements, Group A Occupancies.~~

~~— Section 408.2.2 of the California Fire Code is deleted.~~

~~SEC. 14.10.22.— Section 408.3 deleted, Group E Occupancies and R-2 College and University Buildings.~~

~~— Section 408.3 of the California Fire Code is deleted in its entirety.~~

~~SEC. 14.10.23.— Section 408.5 deleted, Group I-1 Occupancies.~~

~~— Section 408.5 of the California Fire Code is deleted in its entirety.~~

~~SEC. 14.10.24.— Section 408.6 deleted, Group I-2 Occupancies.~~

~~— Section 408.6 of the California Fire Code is deleted in its entirety.~~

~~SEC. 14.10.25.— Section 408.7 deleted, Group I-3 Occupancies.~~

~~— Section 408.7 of the California Fire Code is deleted in its entirety.~~

~~SEC. 14.10.26.— Section 408.8 deleted, Group R-1 Occupancies.~~

~~— Section 408.8 of the California Fire Code is deleted in its entirety.~~

~~SEC. 14.10.27. — Section 408.9 amended, Group R-2 Occupancies.~~

~~— Section 408.9 of the California Fire Code is amended to read as follows:~~

~~— **408.9. Group R-2 Occupancies.** Group R-2 occupancies shall comply with the requirements of Sections 408.9.1 through 408.9.3 and Sections 401 through 406. Group R-2 college and university buildings shall comply with the requirements of Sections 408.9.1 through 408.9.5 and Sections 401 through 406.~~

~~— **408.9.1. Emergency guide.** A fire emergency guide shall be provided which describes the location, function and use of fire protection equipment and appliances accessible to residents, including fire alarm systems, smoke alarms and portable fire extinguishers. The guide shall also include an emergency evacuation plan for each dwelling unit.~~

~~— **408.9.2. Maintenance.** Emergency guides shall be reviewed and approved in accordance with Section 401.2.~~

~~— **408.9.3. Distribution.** A copy of the emergency guide shall be given to each tenant prior to initial occupancy.~~

~~— **408.9.4. First Emergency Evacuation Drill.** The first emergency evacuation drill of each school year shall be conducted within 10 days of the beginning of classes.~~

~~— **408.9.5. Time of Day.** Emergency evacuation drills shall be conducted at different hours of the day or evening, during the changing of classes, when the school is at assembly, during the recess or gymnastic periods, or during other times to avoid distinction between drills and actual fires. In Group R-2 college and university buildings, one required drill shall be held during hours after sunset or before sunrise.~~

~~SEC. 14.10.28. — Section 408.11.1.2 amended, Revisions.~~

~~— Section 408.11.1.2 of the California Fire Code is amended to read as follows:~~

~~— **408.11.1.2. Revisions.** The lease plans shall be revised annually or as often as necessary to keep them current.~~

SEC. 14.10.2917. Section 503.2.1 amended, -- Dimensions.

Section 503.2.1 of the [California-International](#) 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 twenty (20) feet (6,096 mm) and an unobstructed vertical clearance of not less than 13 feet 6 inches (4,115 mm). Unobstructed width shall mean a clear ~~travelway~~ travel way, excluding parking width and designed for emergency vehicle weight. It shall not include the width of rolled curbs, sidewalks or nondrivable surfaces.

**EXCEPTIONS:**

1. Vertical clearances or widths shall be increased when, in the opinion of the fire chief, vertical clearances or widths are not adequate to provide fire apparatus access.

2. Where buildings or portions of buildings or facilities have floors used for human occupancy located more than thirty (30) feet above the access road, the minimum unobstructed width shall be increased to twenty-six (26) feet.

SEC. 14.10.3018. Section 503.2.4 amended, -- Turning **R**radius.

Section 503.2.4 of the [California-International](#) Fire Code is amended to read as follows:

**503.2.4. Turning **r**Radius.** The inside turning radius of a fire apparatus access road shall be a minimum of twenty-one (21) feet, as described in the City of Mountain View fire department's "Standard Details and Specifications for Fire Apparatus Turnaround Access."

**EXCEPTION:**

~~When the turning radius does not meet the City of Mountain View fire department's "Standard Details and Specifications for Fire Apparatus Turnaround Access," all structures located more than one hundred fifty (150) feet away from the nearest compliant turnaround and served by the fire apparatus access road shall be protected by an approved fire sprinkler system.~~

**SEC. 14.10.31. — Section 503.2.5 amended, Dead Ends.**

— Section 503.2.5 of the California Fire Code is amended to read as follows:

— **503.2.5. Dead Ends.** Dead end fire apparatus access roads in excess of one hundred fifty (150) feet (45,720 mm) in length shall be provided with approved provisions for the turning around, of fire apparatus. Approved provisions shall mean turnarounds as described in the City of Mountain View fire department's "Standard Details and Specifications for Fire Apparatus Turnaround Access."

**EXCEPTION:**

— When turnaround provisions do not comply with Section 503.2.4, as amended, on fire apparatus access roads exceeding one hundred fifty (150) feet, all structures located more than one hundred fifty (150) feet away from the nearest compliant turnaround and served by the fire apparatus access road shall be protected by an approved automatic fire sprinkler system.

**SEC. 14.10.32. — Section 503.7 added, Traffic Calming Devices.**

— Section 503.7 is added to the California Fire Code, to read as follows:

— **503.7. Traffic Calming Devices.** Traffic Calming Devices such as speed humps, traffic circles or other physical measures intended to control vehicle speed on fire apparatus access roads are prohibited unless approved by the fire code official.

**SEC. 14.10.3319. Section 504.44 added, — Access to Bbuilding Oopenings and Rroofs.**

Section 504.4 is added to the California International Fire Code, to read as follows:

**504.4.4. Access Ccontrol Ddevices.** When access control devices, including bars, grates, gates, electric or magnetic locks or similar devices are installed, which would inhibit rapid fire department emergency access within and throughout the building, are installed on the interior or exterior of a building, which would inhibit rapid fire department emergency access to the building, such devices shall be approved by the fire chief or his/her designee. 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 department fire chief or his/her designee.

Access control devices shall also comply with Chapter 10 Egress.

SEC. 14.10.3420. Section 505.1 amended, ~~—~~ Premises Identification.

Section 505.1 of the ~~California Fire~~International Fire Code is amended to read as follows:

**505.1. Address identification.** New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 6 inches (152.4 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

**EXCEPTION:**

For R-3 occupancies, address numbers shall be a minimum of 4 inches high with a minimum strike width of 0.5 inch.

SEC. 14.10.3521. Section 509.3 added, ~~—~~ Fire-protection equipment identification and access.

Section 509.3 is added to the ~~California~~International Fire Code, to read as follows:

**509.3. Fire~~—~~protection equipment and fire hydrants.** Fire-protection equipment and fire hydrants shall be clearly identified in an approved manner and maintained unobstructed. ~~to prevent obstruction by parking and other obstructions.~~ Fire Department ~~C~~connections (FDCs) and system control valves shall also be identified by their function and occupancy(ies)/address(es) they serve.

When required by the fire chief, hydrant locations shall be identified by installation of reflective markers.

SEC. 14.10.3622. Section 510.1.1 ~~amended~~added, ~~—~~ Emergency responder radio coverage.

~~Section 510.1 of the California Fire Code is amended to read as follows:~~

~~—~~**510.1. Emergency responder radio coverage in buildings.** ~~All buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communications system of the jurisdiction at the exterior of the building. This section shall not require improvement~~

~~of the existing public safety communications system. Emergency responder radio coverage systems shall be installed in accordance with Section 510 and Appendix J.~~

Section 510.1.1 is added to the California International Fire Code, to read as follows:

**510.1.1. Obstruction by Nnew Bbuildings or structures.** When, ~~in the opinion of the determined by the~~ fire code official, a new building or structure obstructs the line of sight emergency radio communications to existing buildings or to any other locations, the developer of the structure shall provide and install the radio retransmission equipment necessary to restore communications capabilities. The equipment shall be located in an approved space or area within the new structure.

**SEC. 14.10.3723. Section 605.41-12 added, Immersion Hheaters.**

Section 605.41-12 is added to the California International Fire Code, to read as follows:

**605.4112. Immersion Hheaters.** All electrical immersion heaters used in dip tanks, sinks, vats and similar operations shall be provided with approved overtemperature controls and low liquid level electrical disconnects. Manual reset of required protection devices shall be provided.

**SEC. 14.10.3824. Section 608.6.4-1.1 added, Failure of Ventilation System.**

Section 608.6.4-1.1 is added to the California International Fire Code, to read as follows:

**608.6.4-1.1. Failure of Ventilation System.** Failure of the ventilation system shall automatically disengage the charging system.

**SEC. 14.10.3925. Section 806.1.1 amended, Display Inside Buildings.**

Section 806.1.1 of the International California Fire Code is amended to read as follows:

**806.1.1. Display Inside Buildings.** The display of Christmas trees and other decorative vegetation in new and existing buildings shall be in accordance with the California Code of Regulations, Title 19, Division 1, Section 308 and Sections 806.1 through 806.5.

EXCEPTIONS:

1. Trees located in areas protected by an approved automatic sprinkler systems in accordance with Section 901.1.1 or 903.3.1.2 shall not be prohibited in Group A, E, M, R-1 and R-2.

2. Trees shall be allowed within dwelling units in Group R-2 occupancies.

**SEC. 14.10.4026. Section 901.6.3 added, — Existing Ssystems.**

Section 901.6.3 is added to the California-International Fire Code, to read as follows:

**901.6.3. Existing Ssystems.** Fire alarm and detection systems installed prior to the adoption of this code shall be maintained per NFPA 72.

~~Inoperable or unserviceable fire alarm systems shall be restored to operable conditions, equivalent to their original design and installation. Inoperable or unserviceable fire alarm and detection systems in multi-family (R-2) occupancies required under a previous ordinance shall be removed, and a fire alarm system complying with CFC Section 4603.6.6 shall be installed. If a fire alarm system is not otherwise required by Section 4603.6.6, AC-wired single or multiple-station smoke alarms with battery backup shall be provided in each dwelling unit. Detectors shall be located in all areas giving access to rooms used for sleeping purposes and shall be interconnected. Dwelling units with sleeping rooms located above or below the first floor shall have a smoke detector at the top of the stairs and on each stair landing. Battery-operated smoke alarms shall be installed in each room used for sleeping purposes.~~

Section 901.6.3.1 is added to the California-International Fire Code, to read as follows:

**901.6.3.1. Enforcement.** ~~No Existing~~ multi-family (R-2) occupancies with interior exit corridors containing five (5) or more units, built prior to 1983 shall not be occupied without a thermal detection system or equivalent detection system.

**SEC. 14.10.4127. Section 903.2 amended, — Automatic sprinkler systems, where required.**

Section 903.2 of the California-International Fire Code is amended to read as follows:

**903.2. 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 903.2.18-12 and as follows, whichever is the more restrictive:

1. An automatic sprinkler system shall be installed throughout all new buildings and structures.

**Exceptions:**

~~Group A, B, E, F, I, L, M, S and U occupancy buildings and structures that do not exceed 1,000 square feet of building area~~ Buildings and structures that do not exceed 1,000 square feet of building area in the following Groups: A, B, E, F, I, L, M, S and U occupancies. ~~—This exception does not apply to habitable accessory structures constructed on residential properties, regardless of area or occupancy classification~~

b. Group S-2 or U occupancies used exclusively for vehicle parking and ~~which meeting~~ all of the following conditions:

~~(1) Noncombustible construction.~~

~~(2) Maximum building area not to exceed 5,000 square feet.~~

~~(3) Structure is open on three (3) or more sides.~~

~~(4) Minimum of 10 feet separation from existing buildings unless area is separated by fire walls complying with California Building Code 706.~~

2. In determining whether an automatic fire sprinkler system is required, the following criteria shall be used:

(a) Determine the Building Area as defined by the California Building Code.

**Exception:** Eave projections 24 inches or less shall not be counted.

(b) Multiply the Building Area as determined herein by the number of stories. A full basement shall be counted as a story and the floor area of mezzanine(s) shall be added to the Building Area of the story in which they are located.

(c) For the purposes of determining whether automatic fire sprinklers are required in a building, the installation of fire walls will not be considered to create separate buildings.

3. Any change in the character of occupancy or in the use of any building with a Building Area at or over 3,600 square feet which, in the opinion of the fire chief or building official, would place the building into a more hazardous division of the same occupancy group or into a different group of occupancies and constitutes a greater degree of life safety<sup>1</sup>, or increased fire risk<sup>2</sup>, shall require the installation of an approved automatic fire sprinkler system.

~~Definition only—Not limited to:~~

~~1—~~ (a) For purposes of this section, Life Safety includes, but is not limited to, —Increased occupant load, public assembly areas, public meeting areas, churches, indoor amusement attractions, buildings with complex exiting system due to increased occupant loads, large schools/day-care facilities, and large residential care facilities with nonambulatory clients.

~~2—~~ (b) For purposes of this section, Fire Risks includes, but is not limited to, —High piled combustible storage, woodworking operations, hazardous operations using hazardous materials, increased fuel loads (storage of moderate to highly combustible materials) and increased sources of ignition (welding, automotive repair with the use of flammable liquids and open flame).

4. For existing nonsprinklered buildings, an approved automatic sprinkler system shall be required when additions meet one of the following criteria:

a. Additions equal to or greater than 100 percent of the existing square footage.

b. Additions that increase the total building area to over 4,100 square feet.

**SEC. 14.10.4228. Section 903.3.1 amended, — Installation RRrequirements, SSstandards.**

Section 903.3.1 of the California-International Fire Code is amended to read as follows:

**903.3.1. Standards.** Sprinkler systems shall be designed and installed in accordance with Section 903.3.1.1, unless otherwise permitted by 903.3.1.2 and 903.3.1.3. Sprinkler systems shall also be designed and installed in accordance with the City of Mountain View “Commercial Automatic Fire Sprinklers Requirements” and “Residential Automatic Fire Sprinklers Requirements.

**SEC. 14.10.4329. Section 905.3 amended, ~~Standpipe Ssystems, Rrequired~~ Installations.**

Section 905.3 of the ~~California-International~~ Fire Code is amended to read as follows:

**905.3. Required installations.** Standpipe systems shall be installed where required by Sections 905.3.1 through 905.3.10.18 and in the locations indicated in Sections 905.4, 905.5 and 905.6. Standpipe systems are required to be combined with automatic sprinkler systems.

**EXCEPTION:**

Standpipe systems are not required in Group R-3 Occupancies.

**EXCEPTION:**

~~In sprinklered buildings where the floor level of the highest story is located 30 feet or less above the lowest level of the fire department vehicular access, 1½ inch national standard hose valve connections, complying with NFPA standards, shall be provided for fire department use. They shall be located so that all portions of the building are within 150 feet travel distance of a connection. Standpipe systems are not required in Group R-3 occupancies.~~

**SEC. 14.10.4430. Section 905.3.1 amended, ~~Building~~ Height.**

Section 905.3.1 of the ~~California-International~~ Fire Code is amended to read as follows:

**905.3.1. Building Height.** ~~Class III standpipe systems shall be installed throughout buildings~~ Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than ~~30~~ twenty (20) feet (9,144 mm) above the lowest level of the fire department vehicle access, ~~or where the floor level of the lowest story is located more than 30 feet (9,144 mm) below the highest level of fire department vehicle access.~~ or where the floor level of the lowest story is located more than twenty (20) feet below the highest level of fire department vehicular access.

**EXCEPTIONS:**

1. Class I wet standpipes are allowed in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

2. Class I wet standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet above the lowest level of fire department vehicle access.

3. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided the hose connections are located as required for Class II standpipes in accordance with Section 905.5.

4. Class I wet standpipes are allowed in basements equipped throughout with an automatic sprinkler system.

5. In determining the lowest level of fire department vehicular access, it shall not be required to consider:

5.1 Recessed loading docks for four vehicles or less, and

5.2 Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.

**EXCEPTIONS:**

~~1. In determining the lowest level of fire department vehicle access, it shall not be required to consider:~~

~~1.1. Recessed loading docks for four vehicles or less, and~~

~~1.2. Conditions where topography makes access from the fire department vehicle access from the fire department vehicle to the building impractical or impossible.~~

~~2. In sprinklered buildings where the floor level of the highest story is located 30 feet or less above the lowest level of the fire department vehicular access, 1-1/2 inch national standard hose valve connections, complying with NFPA standards, shall be provided for fire department use. They shall be located so that all portions of the building are within 150 feet travel distance of a connection.~~

**SEC. 14.10.45. — Section 905.3.2 amended, Group A.**

— Section 905.3.2 of the California Fire Code is amended to read as follows:

— **905.3.2. Group A.** Class II (without hose) automatic wet standpipes shall be provided in nonsprinklered Group A buildings having an occupant load exceeding 1,000 persons.

**EXCEPTIONS:**

— 1. — Open air seating spaces without enclosed spaces.

**SEC. 14.10.46. — Section 905.3.3 amended, Covered Mall Buildings.**

— Section 905.3.3 of the California Fire Code is amended to read as follows:

— **905.3.3. Covered Mall Buildings.** A covered mall building shall be equipped throughout with a standpipe system where required by Section 905.3.1. Covered mall buildings not required to be equipped with a standpipe system by Section 905.3.1 shall be equipped with Class II hose connections (without hose) connected to a system sized to deliver water at 250 gallons per minute (946.4 L/min) at the most hydraulically remote outlet. Hose connections shall be provided at each of the following locations:

— 1. — Within the mall at the entrance to each exit passageway or corridor.

— 2. — At each floor level landing within enclosed stairways opening directly on the mall.

— 3. — At exterior public entrances to the mall.

**SEC. 14.10.4731. Section 905.3.5 amended, — Underground Bbuildings and parking structures.**

Section 905.3.5 of the California-International Fire Code is amended to read as follows:

**905.3.5. Underground Bbuildings and parking structures.** Underground buildings and parking garages shall be equipped throughout with a Class ~~III~~I automatic wet standpipe system.

SEC. 14.10.32. Section 905.4 amended—Location of Class I standpipe hose connections.

Section 905.4 of the International Fire Code is amended to read as follows:

905.4 Location of Class I standpipe hose connections. Class I standpipe hose connections shall be provided in all of the following locations:

1. In every required stairway, a hose connection shall be provided for each floor level above or below grade. Hose connections shall be located at an intermediate floor level landing between floors, unless otherwise approved by the fire code official.

2. On each side of the wall adjacent to the exit opening of a horizontal exit.

**Exception:** Where floor areas adjacent to a horizontal exit are reachable from exit stairway hose connections by a 30-foot hose stream from a nozzle attached to 100 feet of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.

3. In every exit passageway, at the entrance from the exit passageway to other areas of the building.

**Exception:** Where the floor areas adjacent to an exit passageway are reachable from exit stairway hose connections by a 30-foot hose stream from a nozzle attached to 100 feet of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall. In open mall buildings, adjacent to each public entrance to the mall at the perimeter line and adjacent to each entrance from an exit passageway or exit corridor to the mall.

5. Where the roof has a slope less than four (4) units vertical in twelve (12) units horizontal, a hose connection shall be located to serve the roof, or at the highest landing of a stairway with stair access to the roof provided in accordance with Section 1009.16.

6. Where the most remote portion of a sprinklered or nonsprinklered floor or story is more than 150 feet from a hose connection, additional Class I standpipe hose connections shall be provided within 150 feet of all areas. The distance from a hose connection shall be measured along the path of travel.

**SEC. 14.10.4833. Section 907.7-6 amended, --Fire Alarm and Detection Systems, Installation.**

Section 907.7 of the California-International Fire Code is amended to read as follows:

**907.76. Installation.** A fire alarm system shall be installed in accordance with 907.76.1 through 907.76.5.42, National Fire Protection Association 72 and the City of Mountain View "Fire Alarm and Sprinkler Monitoring System Requirements."

**SEC. 14.10.34. Section 1008.1.9.11 amended – Stairway doors.**

Section 1008.1.9.11 of the International Fire Code is amended, to read as follows:

1008.1.9.11. Stairway doors. Interior stairway means of egress doors shall be openable from both sides without the use of a key or special knowledge or effort.

**EXCEPTIONS:**

1. Stairway discharge doors shall be openable from the egress side and shall only be locked from the opposite side.

2. This section shall not apply to doors arranged in accordance with Section 403.5.3 of the International Building Code.

3. In stairways serving not more than six (6) stories, in buildings not otherwise classified as a high-rise building in accordance with the California Building Code, doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building.

4. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group B, F, M, and S occupancies where the only interior access to the tenant space is from a single exit stair where permitted in Section 1021.2.

5. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group R-2 occupancies where the only interior access to the dwelling unit is from a single exit stair where permitted in Section 1021.2.

**SEC 14.10.35. Section 3206.4 amended—General fire protection and life safety features, automatic sprinklers.**

Section 3206.4 of the International Fire Code is amended, to read as follows:

**3206.4. Automatic sprinklers.** Automatic sprinkler systems shall be provided in accordance with Sections 3207, 3208, 3209 and 903.2 as amended.

**SEC. 14.10.4936. Section 1404.83304.8 added,—Precautions Against Fire, Firewalls.**

Section 1404.83304.8 is added to the California-International Fire Code, to read as follows:

**1404.83304.8. Firewalls.** When firewalls are required in combustible construction, 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).

**SEC. 14.10.5037. Section 1411.3311.1 amended,—Means of Egress, Stairways Required.**

Section 1411.3311.1 of the California-International Fire Code is amended, to read as follows:

**1411.3311.1. Stairways Required.** Each level above the first story in new multi-story buildings that require two (2) exit stairways shall be provided with at least two (2) usable exit stairways after the floor decking is installed. The stairways shall be continuous and 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 (2) contiguous floor levels for the purpose of stairway construction (i.e., installation of gypsum board, painting, flooring, etc.).

~~Section 1411.1.1 is added to the California Fire Code, to read as follows:~~

~~**1411.1.1. Required Means of Egress.** All new buildings under construction shall have at least one unobstructed means of egress. All means of egress shall be identified in the prefire plan. See Section 1408.2 of the California Fire Code.~~

**SEC. 14.10.51. — Section 1802.1 amended, Definitions.**

— Section 1802.1 of the California Fire Code is amended to include the following definition and shall read:

— **CONTINUOUS GAS DETECTION SYSTEM.** An approved gas detection system where the analytical instrument is maintained in continuous operation and sampling is performed without interruption. Analysis is allowed to be performed on a cyclical basis at intervals not to exceed 30 minutes. In occupied areas where air is recirculated and not exhausted to a treatment system (e.g., breathing zone), the chief may require a cyclical basis at intervals not to exceed 5 minutes. The gas detection system shall be able to detect the presence of a gas at or below the permissible exposure limit in occupiable areas and at or below 1/2 IDLH (or 0.05 LC<sub>50</sub> if no established IDLH) in unoccupiable areas.

**SEC. 14.10.52. Section 2306.4 amended, General Fire Protection and Life Safety Features, Automatic Sprinklers.**

— Section 2306.4 of the California Fire Code, is amended to read as follows:

**2306.4. Automatic Sprinklers.** Automatic sprinkler systems shall be provided in accordance with Sections 2307, 2308, 2309 and 903.2 as amended.

**SEC. 14.10.5338. Section 27035003.9.1.111 added, — General Rrequirements, Ffire Extinguishing Ssystems.**

Section 27035003.9.111-1 is added to the California-International Fire Code, to read as follows:

**27035003.9.1.111. Fire Extinguishing systems for fume hoods and workstations dispensing, handling or using hazardous materials.** Combustible and noncombustible fume hoods and workstations, which dispense, handle or use hazardous materials, shall be protected by an approved automatic fire extinguishing system in accordance with Section 18032703.10.

**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.

SEC. 14.10.5439. Section ~~34045704.2.9.6.1~~ amended, ~~—~~ **Flammable and combustible liquids, storage.**

Section ~~34045704.2.9.6.1~~ of the California-International Fire Code is amended to read as follows:

~~34045704.2.9.6.1. Locations ~~W~~where ~~A~~aboveground ~~T~~tanks ~~A~~are ~~P~~prohibited.~~ Storage of Class I and II liquids in aboveground tanks outside of buildings is prohibited within any portion of the City of Mountain View, now or hereafter existing.

**EXCEPTIONS:**

~~1.—Double-wall steel-approved aboveground tanks ~~not exceeding 660-gallon capacity~~ used for the storage of diesel fuel (including integral diesel fuel storage tanks) to power listed generators or fire pumps. ~~Tanks of 0 to 660-gallon capacity shall be located a minimum of ten (10) feet from any building and property line which is or can be built upon. Minimum distances may be reduced as approved by the fire code official, but not less than five (5) feet when the aboveground tank is protected by an unpierced two (2) hour fire-resistive wall extending not less than thirty (30) inches above and to the sides of the storage area.~~~~

~~2.—Double-wall protected aboveground storage tanks storing diesel fuel that are used to power listed generators or fire pumps shall not exceed 4,000 gallons individual capacity and 16,000 gallons aggregate capacity. Tanks of 661 to 4,000-gallon capacity shall be located a minimum of ten (10) feet from any building and fifteen (15) feet from a property line which is or can be built upon. Minimum distances may be reduced as approved by the fire code official, but not less than five (5) feet when the protected aboveground tank is protected by an unpierced two (2) hour fire-resistive wall extending not less than thirty (30) inches above and to the sides of the storage area. Tanks shall be installed in accordance with NFPA 30 and Chapter 34 of the California Fire Code as amended.~~

SEC. 14.10.5540. Section ~~38046104.2~~ amended, ~~—~~ **Liquefied ~~P~~petroleum ~~G~~gases, ~~L~~location of LP-~~G~~gas ~~C~~containers.**

Section ~~38046104.2~~ of the California-International Fire Code is amended to read as follows:

~~38046104.2. Maximum ~~C~~capacity within ~~E~~established ~~L~~limits.~~ Liquefied Petroleum Gas (LPG) containers shall not be permitted within the city limits where natural gas mains exist. Upon the installation of natural gas mains, conversion from LPG to natural gas must be made within thirty (30) days of the installation of the mains. When an area is annexed to the city and no natural gas mains exist, the use of LPG may

be continued until natural gas mains are installed. If natural gas mains exist within the area of annexation, conversion from LPG to natural gas shall be made within thirty (30) days of annexation.

**EXCEPTION:**

Installations of LPG ~~tanks~~ containers may be permitted within the city limits if used for: ~~(1) emergency standby power supply;~~ ~~(21)~~ filling of portable containers for retail sales; or ~~(32)~~ industrial operators where natural gas would not provide a workable substitute.

**SECS. 14.11 – 14.29. Reserved.**

**ARTICLE II.**  
**EXPLOSIVES AND FIREWORKS REGULATIONS.**

**SEC. 14.30.** Chapter 56 of the International Fire Code, Explosives and fireworks, is not adopted, with the exception of the following sections:

**SEC 14.31.** Section ~~33015601.1~~ amended, ~~— Explosives and Ffireworks,~~  
~~Ggeneral~~ Scope.

Section ~~33015601.1~~ of ~~California~~ the International Fire Code is amended to read as follows:

**33015601.1. Scope.** For explosives requirements, see Title 19 California Code of Regulations, Division 1, Chapter 10 and Section ~~3301.1.15601.2 of this chapter.~~ ~~as amended.~~ For fireworks requirements, see Title 19 California Code of Regulations, Division 1, Chapter 6 and Sections ~~3301.1.15601.3 of this chapter.~~ ~~and 3301.1.2 as amended.~~ For small arms ammunition requirements, see Section 5601.5 of this chapter.

**EXCEPTIONS:**

1. The Armed Forces of the United States, Coast Guard or National Guard.
2. Explosives in forms prescribed by the official United States Pharmacopoeia.
3. The use of explosive materials by federal, ~~S~~state and local regulatory, law enforcement and fire agencies acting in their official capacities.
4. Items preempted by federal regulations.

SEC. 14.3132. Section ~~33015601.2~~ added, ~~— Explosives and Fireworks, General.~~

Section ~~33015601.2~~ is added to the ~~California International~~ Fire Code, to read as follows:

~~33015601.2. Explosives.~~ The possession, manufacture, storage, sale, handling and use of explosives are prohibited.

**EXCEPTIONS:**

Possession, storage, handling and use of explosives for test and research purposes may be allowed with permit and approval of the fire chief or his/her designee.

SEC. 14.3233. Section ~~33015601.3~~ added, ~~— Explosives and Fireworks, General.~~

Section ~~33015601.3~~ is added to the ~~California International~~ Fire Code, to read as follows:

~~33015601.3. Fireworks.~~ The possession, manufacture, storage, sale, handling and use of fireworks, including those fireworks classified as Safe and Sane by the California State Fire Marshal, are prohibited.

**EXCEPTIONS:**

1. Storage, handling and use of fireworks and pyrotechnic special effects outside of buildings when used for public or proximate audience displays, motion picture, television, theatrical and group entertainment productions when handled and used by a California State licensed pyrotechnic operator in accordance with Title 19 of the California Code of Regulations and with permit and approval of the fire chief ~~and~~ his/her designee.

2. Storage, handling and use of pyrotechnic special effects fireworks inside of buildings, equipped throughout with an approved fire sprinkler system, when used for proximate audience displays or special effects in theatrical, television, motion picture and group entertainment productions and when handled and used by a California State licensed pyrotechnic operator in accordance with Title 19 of the California Code of Regulations and with permit and approval of the fire chief ~~and/or~~ his/her designee.

SEC. 14.3334. Section ~~33015601.4~~ added, ~~—~~ Explosives and ~~F~~ fireworks, ~~G~~ general.

Section ~~33015601.4~~ is added to the ~~California-International~~ Fire Code, to read as follows:

~~33015601.4. Rocketry.~~ The storage, handling and use of model rockets shall be in accordance with Title 19 of the California Code of Regulations and with permit and approval of the fire chief or his/her designee.

SEC. 14.3435. Section ~~33015601.5~~ added, ~~—~~ Explosives and ~~F~~ fireworks, ~~G~~ general.

Section ~~33015601.5~~ is added to the ~~California-International~~ Fire Code, to read as follows:

~~33015601.5. Small Arms Ammunition – Ggeneral.~~ Indoor storage and display of black powder, smokeless propellants and small arms ammunition shall comply with Sections 3301.5.1 through 3301.5.3.2.3.

Section ~~33015601.5.1~~ is added to the ~~California-International~~ Fire Code, to read as follows:

~~33015601.5.1. Packages.~~ Smokeless propellants shall be stored in approved shipping containers conforming to ~~DOT-Department of Transportation~~, 49 CFR, Part 173.

Section ~~33015601.5.1.1~~ is added to the ~~California-International~~ Fire Code, to read as follows:

~~33015601.5.1.1. Repackaging.~~ The bulk repackaging of smokeless propellants, black powder and small arms primers shall not be performed in retail establishments.

Section ~~33015601.5.1.2~~ is added to the ~~California-International~~ Fire Code, to read as follows:

~~33015601.5.1.2. Damaged Ppackages.~~ Damaged containers shall not be repackaged.

**EXCEPTION:**

Approved repackaging of damaged containers of smokeless propellant into containers of the same type and size as the original container.

Section ~~33015601~~.5.2 is added to the [California-International](#) Fire Code, to read as follows:

**~~33015601~~.5.2. Storage in Group R Occupancies.** The storage of small arms ammunition in Group R occupancies shall comply with Sections ~~33015601~~.5.2.1 through ~~33015601~~.5.2.3.

Section ~~33015601~~.5.2.1 is added to the [California-International](#) Fire Code, to read as follows:

**~~33015601~~.5.2.1. Smokeless Propellants.** Smokeless propellants intended for personal use in quantities not exceeding 20 pounds (9 kg) are permitted to be stored in Group R-3 occupancies where kept in original containers. Smokeless powder in quantities exceeding 20 pounds (9 kg), but not exceeding 50 pounds (23 kg), are permitted to be stored in Group R-3 occupancies where kept in a wooden box or cabinet having walls of at least 1 inch (25 mm) nominal thickness.

Section ~~33015601~~.5.2.2 is added to the [California-International](#) Fire Code, to read as follows:

**~~33015601~~.5.2.2. Black Powder.** Black powder intended for personal use in quantities not exceeding 20 pounds (9 kg) ~~is~~ are permitted to be stored in Group R-3 occupancies where kept in original containers and stored in a wooden box or cabinet having walls of at least 1 inch (25 mm) nominal thickness.

Section ~~33015601~~.5.2.3 is added to the [California-International](#) Fire Code, to read as follows:

**~~33015601~~.5.2.3. Small Arms Primers.** No more than 10,000 small arms primers shall be stored in Group R-3 occupancies.

Section ~~33015601~~.5.3 is added to the [California-International](#) Fire Code, to read as follows:

**~~33015601~~.5.3. Display and Storage in Group M Occupancies.** The display and storage of small arms ammunition in Group M occupancies shall comply with Sections ~~33015601~~.5.3.1 through ~~33015601~~.5.3.2.3.

Section ~~33015601~~.5.3.1 is added to the [California-International](#) Fire Code, to read as follows:

**~~33015601~~.5.3.1. Display.** The display of small arms ammunition in Group M occupancies shall comply with Sections ~~33015601~~.5.3.1.1 through ~~33015601~~.5.3.1.3.

Section ~~33015601~~.53.1.1 is added to the [California-International](#) Fire Code, to read as follows:

**~~33015601~~.5.3.1.1. Smokeless Ppropellant.** No more than 20 pounds (9 kg) of smokeless propellants, each in containers of 1 pound (0.454 kg) or less capacity, shall be displayed in Group M occupancies.

Section ~~33015601~~.5.3.1.2 is added to the [California-International](#) Fire Code, to read as follows:

**~~33015601~~.5.3.1.2. Black Ppowder.** No more than 1 pound (0.454 kg) of black powder shall be displayed in Group M occupancies.

Section ~~33015601~~.5.3.1.3 is added to the [California-International](#) Fire Code, to read as follows:

**~~33015601~~.5.3.1.3. Small Aarms Pprimers.** No more than 10,000 small arms primers shall be displayed in Group M occupancies.

Section ~~33015601~~.5.3.2 is added to the [California-International](#) Fire Code, to read as follows:

**~~33015601~~.5.3.2. Storage.** The storage of small arms ammunition in Group M occupancies shall comply with Sections ~~3301~~.5.3.2.1 through ~~3301~~.5.3.2.3.

Section ~~33015601~~.5.3.2.1 is added to the [California-International](#) Fire Code, to read as follows:

**~~33015601~~.5.3.2.1. Storage of Ssmokeless Ppropellant.** Commercial stocks of smokeless propellants not on display shall not exceed 100 pounds (45 kg). Quantities exceeding 20 pounds (9 kg), but not exceeding 100 pounds (45 kg), shall be stored in portable wooden boxes having walls of at least 1 inch (25 mm) nominal thickness.

Section ~~33015601~~.5.3.2.2 is added to the [California-International](#) Fire Code, to read as follows:

**~~33015601~~.5.3.2.2. Black Ppowder.** Commercial stocks of black powder not on display shall not exceed 50 pounds (23 kg) and shall be stored in a Type 2 or 4 indoor or outdoor ~~magazine~~magazines. When black powder and smokeless propellants are stored together in the same magazine, the total quantity shall not exceed that permitted for black powder.

Section ~~33015601~~.5.3.2.3 is added to the California-International Fire Code, to read as follows:

~~33015601~~.5.3.2.3. **Small Arms Primers.** Commercial stocks of small arms primers not on display shall not exceed 750,000. Storage shall be arranged such that not more than 100,000 small arms primers are stored in any one pile and piles are at least 15 feet (4,572 mm) apart.

SEC. 14.~~3536~~ TO 14.39. Reserved.

### ARTICLE III. ENFORCEMENT.

#### SEC. 14.40. Appeals.

Whenever the fire chief or his/her designee shall disapprove an application or refuse to grant a license or permit applied for, or when it is claimed that the provisions of the code do not apply, or that the true intent and meaning of the code has been misconstrued or wrongfully interpreted, the applicant may appeal the decision to the city council within thirty (30) days from the date of the decision.

#### SEC. 14.45. Establishment and duties of the fire prevention bureau.

This chapter shall be enforced by the fire prevention bureau in the fire department of the city, which is hereby established and which shall be operated under the supervision of the chief of the fire department.

#### SEC. 14.50. Penalties.

a. Any person who shall violate any of the provisions of the code hereby adopted or fail to comply therewith or who shall violate or fail to comply with any order made thereunder or who shall build in violation of any detailed statement of specifications or plans submitted and approved thereunder or any certificate or permit issued thereunder, and from which no appeal has been taken or who shall fail to comply with such an order as affirmed or modified by the city council or by a court of competent jurisdiction, within the time fixed herein, shall severally for each and every such violation and noncompliance respectively be guilty of a misdemeanor, punishable as set forth in the city charter. The imposition of one penalty for any violation shall not excuse the violation or permit it to continue; and all such persons shall be required to correct or remedy such violations or defects within a reasonable time; and when not otherwise specified, each day that prohibited conditions are maintained shall constitute a separate offense.

b. The application of the above penalty shall not be held to prevent the enforced removal of prohibited conditions.

c. Nothing contained in this section shall be construed to prevent the city from taking whatever appropriate civil action it deems necessary to enforce any of the provisions of this code or of this chapter.

**SEC. 14.51. Arrests and issuance of citations.**

a. The fire chief, fire marshal, deputy fire marshals, and other designated fire department personnel of the city may make arrests for violations of this code under the authority set forth by California Penal Code Sections 830.37, 836.5 and 853.6 ~~of the Penal Code of the state~~. The fire chief, ~~the~~ fire marshal, and deputy fire marshals, and other designated fire department personnel who have the discretionary duty to enforce a statute or ordinance, may, as provided by law, arrest a person without a warrant whenever any such officer has reasonable cause to believe ~~that~~ the person to be arrested has committed a misdemeanor in the officer's presence which he or she has the discretionary duty to enforce, and may issue a notice to appear and release such persons on his or her written promise to appear in court.

b. **Hazardous materials enforcement.** Those employees of the city, including, but not limited to, the fire marshal and hazardous materials specialists, who have the duty of enforcing this code, city and state laws pertaining to hazardous and toxic materials, are hereby authorized, in accordance with and pursuant to California Penal Code Sections 830.37, 836.5 and 853.6, to arrest persons for violations of such ordinances or statutes and to issue Notice to Appear citations as provided by law.

**SEC. 14.52. Enforcement remedies nonexclusive.**

The remedies provided for in this ordinance are not exclusive. Pursuant to Chapter 1, Sec. 1.7, 1.18, 1.28 and 1.29 of the Mountain View City Code, the city, in its prosecutorial discretion, may enforce violation(s) of the provisions of this Chapter 14 as a criminal, civil and/or administrative action."

Section 3. The provisions of this ordinance shall be effective thirty (30) days from and after the date of its adoption, but no sooner than January 1, 2014.

Section 4. If any section, subsection, sentence, clause, or phrase of this ordinance is for any reason held to be unconstitutional, such decision shall not affect the validity of the other remaining portions of this ordinance. The City Council hereby declares that it would have passed this 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 unconstitutional.

Section 5. Pursuant to Section 522 of the Mountain View City Charter, it is ordered that copies of the foregoing proposed ordinance be posted at least two (2) days prior to its adoption in three (3) prominent places in the City and that a single publication be made to the official newspaper of the City of a notice setting forth the title of the ordinance, the date of its introduction, and a list of the places where copies of the proposed ordinance are posted.

Section 6. This ordinance is not subject to the California Environmental Quality Act (CEQA) pursuant to Sections 15060(c)(2) of the CEQA Guidelines (Title 14, Chapter 3 of the California Code of Regulations) (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment) and 15060(c)(3) of the CEQA Guidelines (because it has no potential for resulting in physical change to the environment, directly or indirectly).

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JW/2/ORD  
197-10-08-13o-E-so

ORDINANCE NO.

AN ORDINANCE AMENDING CHAPTER 24, ARTICLES I AND II,  
OF THE MOUNTAIN VIEW CITY CODE, RELATING TO  
HAZARDOUS MATERIALS

THE CITY COUNCIL OF THE CITY OF MOUNTAIN VIEW DOES HEREBY  
ORDAIN:

Section 1. Article I of Chapter 24 of the Mountain View City Code is hereby  
amended to read as follows:

**ARTICLE I. HAZARDOUS MATERIALS PERMIT CODE.**

**DIVISION I. GENERAL PROVISIONS.**

**SEC. 24.1.0. Purpose.**

The purpose of this chapter is the protection of health, safety, or welfare of persons, resources, or property through the regulation of hazardous materials and other regulated materials.

**SEC. 24.1.1. General obligation – Safety and care.**

a. No person, firm or corporation shall cause, suffer, or permit the storage, handling, or dispensing of hazardous materials or other regulated materials:

1. In a manner which violates a provision of this chapter or any other local, federal, or state statute, code, rule, or regulation relating to hazardous materials or other regulated materials; or

2. In a manner which causes, or poses a significant risk of causing, an unauthorized discharge of hazardous materials or other regulated materials or threatens the health, safety, or welfare of persons, resources or property.

**SEC. 24.1.2. Specific obligation.**

a. Any person, firm, or corporation which stores, handles or dispenses any hazardous or other material regulated by Sec. 24.2.0 which is not excluded by Sec. 24.2.1 shall obtain and keep current a Hazardous Materials Permit.

b. All such hazardous or other regulated materials shall be stored, handled, and dispensed in conformity with Division III of this chapter.

c. The storage, handling and dispensing of such hazardous or other regulated materials shall be in conformance with the approved Hazardous Materials [Management Business](#) Plan.

d. The fire department shall be the agency within the City of Mountain View having authority to enforce the provisions of this ordinance and related state and federal laws and regulations referenced in this chapter.

### **SEC. 24.1.3. Definitions.**

Unless otherwise expressly stated, whenever used in this chapter, the following terms shall have the meanings set forth below:

a. "Abandoned," when referring to a storage facility, means out of service and not safeguarded in compliance with this chapter.

b. "Acutely hazardous materials" means any chemical designated as an extremely hazardous substance which is listed in Appendix A of Part 355 of Subchapter J of Chapter I of Title 40 of the Code of Federal Regulations (as referenced in California Health and Safety Code Division 20, Chapter 6.95, Article 2, Sec. 25532).

c. "Business" means an employer, self-employed individual, trust, firm, joint stock company, corporation, partnership or association. For purposes of this chapter, "business" includes a business organized for profit and a nonprofit business.

d. "California Electronic Reporting System (CERS)" is a web-based reporting system created by Cal/EPA for regulated facilities to electronically file required hazardous materials business plan (HMBP) information in accordance with CCR, Title 27.

ee. "Chemical name" means the scientific designation of a substance in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the system developed by the Chemical Abstract Service (CAS).

fe. "City" means the City of Mountain View.

gf. "Combustible liquid" is a liquid having a closed-cup flashpoint at or above one hundred (100) degrees Fahrenheit. (Note: This is the California Fire Code definition; D.O.T. defines "combustible liquid" differently.)

hg. “Common name” means any designation or identification such as a code name, code number, trade name or brand name used to identify a substance other than by its chemical name.

ih. “Compressed gas cylinder” means a cylinder containing: (a) a gas or mixture of gases at an absolute pressure exceeding forty (40) pounds per square inch at seventy (70) degrees Fahrenheit; or (b) a gas or mixture of gases at an absolute pressure exceeding one hundred four (104) pounds per square inch at one hundred thirty (130) degrees Fahrenheit regardless of the pressure at seventy (70) degrees Fahrenheit; or (c) a liquid having a vapor pressure exceeding forty (40) pounds per square inch at one hundred (100) degrees Fahrenheit.

ji. “Corrosive gas” means a gas as defined in Article II of this chapter.

kj. “Corrosive liquid” means a liquid that has a pH equal to or greater than 12.5 or less than or equal to 2.0 or as defined in 173 of 49 CFR.

lk. “Corrosive solid” means a solid that has a pH equal to or greater than 12.5 or less than or equal to 2.0 when hydrated with water and as defined in 173 of 49 CFR.

ml. “Cryogen” is a fluid that has a normal boiling point lower than one hundred thirty (-130) degrees Fahrenheit (-90 degrees Celsius) at 14.7 psi atmosphere (psia).

nm. “Dangerous when wet liquid” means a liquid as defined in 173 of 49 CFR.

no. “Dangerous when wet solid” means a solid as defined in 173 of 49 CFR.

pe. “Dispense” means to pour or transfer a material from a container, tank or similar vessel whereby vapors, dusts, fumes, mists or gases could be liberated to the atmosphere.

qp. “D.O.T.” is an abbreviation for Department of Transportation and refers to this federal agency.

rq. Electronic reporting means all regulated facilities must use an approved web-based reporting system to electronically file required hazardous materials business plan (HMBP) information. This includes, but is not limited to, CCR Title 27 Data Dictionary elements, facility data regarding hazardous materials regulatory activities, chemical inventories, underground and aboveground storage tanks, hazardous waste generation, and additional locally required information as necessary. “Environmental compliance plan (ECP)” means a written plan containing the information required pursuant to Sec. 25500 et seq. of the California Health and Safety Code and additional locally required

~~information as described in Division IV of this chapter. For the purposes of this chapter, the terms “hazardous materials business plan (HMBP),” “hazardous materials management plan (HMMP)” and “environmental compliance plan (ECP)” refer to the same plan and can be used interchangeably.~~

~~sf.~~ “Explosive” means: (a) chemicals that cause a sudden, almost instantaneous release of pressure, gas and heat when subjected to sudden shock, pressure or high temperatures; or (b) materials or chemicals, other than blasting agents, that are commonly used or intended to be used for the purpose of producing an explosive effect.

~~ts.~~ “Facility” means a building or buildings, appurtenant structures and surrounding land area used by a single business entity at a single location or site.

~~ut.~~ “Flammable gas” is a gas at sixty-eight (68) degrees Fahrenheit or less at 14.7 psi atmosphere of pressure which is ignitable when in a mixture of thirteen (13) percent or less by volume with air or which has a flammable range with air of at least twelve (12) percent regardless of the lower limit.

~~vt.~~ “Flammable liquid” is a liquid having a closed-cup flash point below one hundred (100) degrees Fahrenheit and having a vapor pressure not exceeding forty (40) psia at one hundred (100) degrees Fahrenheit.

~~wv.~~ “Flammable solid” means any of the following three (3) types of materials:

1. Desensitized explosives that:

(a) When dry are explosives of Class 1 other than those of compatibility Group A which are wetted with sufficient water, alcohol or plasticizer to suppress explosive properties; and

(b) Are specifically authorized by name either in [Table 172.101](#) ~~Table~~ of 49 CFR or have been assigned a shipping name and hazard class by the associate administrator for hazardous materials safety;

2. **Self-reactive materials.** These are materials that are liable to undergo, at normal or elevated temperatures, a strongly exothermal decomposition caused by excessively high transport temperatures or by contamination; and

3. **Readily combustible solids.** These are materials that:

- (a) Are solids which may cause a fire through friction such as matches;
- (b) Show a burning rate faster than 2.2 mm per second when tested in accordance with 173 of 49 CFR; or
- (c) Any metal powders that can be ignited and react over the whole length of a sample when tested in accordance with 173 of 49 CFR.

xx. “Handle” means to use, generate, process, produce, package, treat, store, emit, discharge or dispose of a hazardous material in any fashion.

yx. “Handler” means any person, firm or corporation which handles a hazardous material.

zy. “Hazard class” means dangerous when wet liquids, dangerous when wet solids, flammable liquids, combustible liquids, flammable solids, oxidizer liquids, oxidizer solids, oxidizer gases, organic peroxide liquids, organic peroxide solids, corrosive liquids, corrosive solids, corrosive gases, flammable gases, nonflammable gases, poisonous material gases, poisonous material liquids, poisonous material solids, infectious substances, radioactive materials, cryogenics, miscellaneous hazardous material liquids, miscellaneous hazardous material solids, spontaneously combustible liquids, spontaneously combustible solids.

aa. “Hazardous material” means any material which is subject to regulation pursuant to Division II of this chapter. A mixture shall be deemed to be a hazardous material if it either is: (a) a waste and contains any material regulated pursuant to Article II of this chapter; (b) a nonwaste (other than toxic, highly toxic, moderately toxic or poisonous solids, liquids or gases) and contains one (1) percent by weight or more of any material regulated pursuant to Division II of this chapter; or (c) is a nonwaste and contains any amount of material regulated as a toxic, highly toxic, moderately toxic or poisonous solid, liquid or gas.

The definition of mixtures shall not apply to hazardous substances stored in underground storage tanks, and any amount of a hazardous substance in an underground storage tank shall be regulated as a hazardous material.

baa. “Hazardous materials business plan (HMBP)” means an electronically filed-written plan containing the information required pursuant to Sec. 25500 et seq. of the California Health and Safety Code, Title 27 of the California Code of Regulations and additional locally required information as necessary. described in Division IV of this chapter. ~~For the purposes of this chapter, the terms “hazardous materials business~~

plan (HMMP),” “hazardous materials management plan (HMMP)” and “environmental compliance plan (ECP)” refer to the same plan and can be used interchangeably.

bb. ~~“Hazardous materials management plan (HMMP)” means a written plan containing the information required pursuant to Sec. 25500 et seq. of the California Health and Safety Code and additional locally required information as described in Division IV of this chapter. For the purposes of this chapter, the terms “hazardous materials business plan (HMMP),” “hazardous materials management plan (HMMP)” and “environmental compliance plan (ECP)” refer to the same plan and can be used interchangeably.~~

cc. “Infectious substance” means a viable microorganism, or its toxin, which causes or may cause disease in humans or animals and includes those agents listed in 42 CFR 72.3 of the regulations of the Department of Health and Human Services or any other agent that causes or may cause severe, disabling or fatal disease. The terms “infectious substance” and “etiologic agent” are synonymous for the purposes of this chapter.

dd. “Miscellaneous hazardous material liquids” means any liquid which a handler or the city has a reasonable basis ~~for to believing believe that~~ it would be injurious to the health and safety of persons or property or be harmful to the environment if released into the workplace or environment and is not otherwise classified under any other hazard classes described in this chapter.

ee. “Miscellaneous hazardous material solids” means any solid which a handler or the city has a reasonable basis ~~for to believing believe that~~ it would be injurious to the health and safety of persons or property or be harmful to the environment if released into the workplace or environment and is not otherwise classified under any other hazard classes described in this chapter.

ff. “MSDS” is an abbreviation for “material safety data sheet” and refers to written or printed material concerning a hazardous material which is prepared in accordance with the provisions of 29 CFR 1910.1200.

gg. “Nonflammable gas” is any inert material or inert mixture that, when enclosed in a container, has an absolute pressure exceeding forty (40) psi at seventy (70) degrees Fahrenheit or, regardless of the pressure at seventy (70) degrees Fahrenheit, having an absolute pressure exceeding one hundred forty (140) psi at one hundred thirty (130) degrees Fahrenheit.

hh. “Normal temperature and pressure” means a temperature of sixty-eight (68) degrees Fahrenheit and pressure of one (1) atmosphere (14.7 psia).

ii. "Officer" means the employee assigned by [the](#) city to administer this chapter or any designee of such employee.

jj. "Organic peroxide liquid" means any organic liquid containing oxygen in the bivalent (-O-O-) structure and which may be considered a derivative of hydrogen peroxide where one (1) or more of the hydrogen atoms have been replaced by organic radicals.

kk. "Organic peroxide solid" means any organic solid containing oxygen in the bivalent (-O-O-) structure and which may be considered a derivative of hydrogen peroxide where one (1) or more of the hydrogen atoms have been replaced by organic radicals.

ll. "Oxidizer gas" means a gas that can support and accelerate combustion of other materials more than air does.

mm. "Oxidizer liquid" means a material that readily yields oxygen or other oxidizing gas, or that readily reacts to promote or initiate combustion of combustible materials.

nn. "Oxidizer solid" means a material that readily yields oxygen or other oxidizing gas, or that readily reacts to promote or initiate combustion of combustible materials.

oo. "Permit" means any hazardous materials permit issued pursuant to this chapter as well as any additional approvals thereto.

pp. "Permit quantity limit" means the maximum amount of hazardous material that can be stored or handled in a storage facility. Separate permit quantity limits will be set for each storage facility for which a permit is obtained in accordance with the requirements of this chapter.

qq. "Permittee" means any person, firm or corporation to whom a permit is issued pursuant to this chapter and any authorized representative, agent or designee of such person, firm or corporation.

rr. "Pipes" means pipeline systems which are used in connection with the storage or handling of hazardous materials exclusively within the confines of a facility and which are not intended to transport hazardous materials in interstate or intrastate commerce or to transfer hazardous materials in bulk to or from a marine vessel.

ss. "Poisonous material gas" means a material which is a gas at twenty (20) degrees Celsius or less and a pressure of 101.3 kPa (14.7 psi) (a material which has a boiling point of twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit) or less at 101.3 kPa (14.7 psi)) and which:

1. Is known to be so toxic to humans as to pose a hazard to health during transportation, or

2. In the absence of adequate data on human toxicity is presumed to be toxic to humans because when tested on laboratory animals it has an LC<sub>50</sub> value of not more than five thousand (5,000) ml/ m<sup>3</sup>.

tt. "Poisonous material liquid" means a liquid which is known to be so toxic to humans as to pose a hazard to health during transportation or which in the absence of adequate data on human toxicity:

1. Is presumed to be toxic to humans because it falls within any one (1) of the following categories when tested on laboratory animals:

(a) **Oral toxicity.** A liquid with an LD<sub>50</sub> for acute oral toxicity of not more than five hundred (500) mg/kg.

(b) **Dermal toxicity.** A material with an LD<sub>50</sub> for acute dermal toxicity of not more than one thousand (1,000) mg/kg.

(c) **Inhalation toxicity.** (A) a dust or mist with an LC<sub>50</sub> for acute toxicity on inhalation of not more than ten (20) mg/L; or (B) a material with a saturated vapor concentration in air at twenty (20) degrees Celsius greater than or equal to one-fifth (1/5) of the LC<sub>50</sub> for acute toxicity on inhalation of vapors and with an LC<sub>50</sub> for acute toxicity on inhalation of vapors of not more than five thousand (5,000) ml/ m<sup>3</sup>.

2. Is an irritating material, with properties similar to tear gas, which causes extreme irritation, especially in confined spaces.

uu. "Poisonous material solid" means a solid which is known to be so toxic to humans as to pose a hazard to health during transportation or which in the absence of adequate data on human toxicity:

1. Is presumed to be toxic to humans because it falls within any one (1) of the following categories when tested on laboratory animals:

(a) **Oral toxicity.** A liquid with an LD<sub>50</sub> for acute oral toxicity of not more than -five hundred (500) mg/kg.

(b) **Dermal toxicity.** A material with an LD<sub>50</sub> for acute dermal toxicity of not more than one thousand (1,000) mg/kg.

(c) **Inhalation toxicity.** (A) a dust or mist with an LC<sub>50</sub> for acute toxicity on inhalation of not more than twenty (20) mg/L; or (B) a material with a saturated vapor concentration in air at twenty (20) degrees Celsius greater than or equal to one-fifth (1/5) of the LC<sub>50</sub> for acute toxicity on inhalation of vapors and with an LC<sub>50</sub> for acute toxicity on inhalation of vapors of not more than five thousand (5,000) ml/ m<sup>3</sup>.

2. Is an irritating material, with properties similar to tear gas, which causes extreme irritation, especially in confined spaces.

vv. "Portal" means a web-based database for regulated facilities to electronically report required hazardous materials business plan (HMBP) and additional locally required information.

vwvw. "Primary containment" means the first level of containment (i.e., the inside portion of that container which comes into immediate contact on its inner surface with the hazardous material being contained).

wwxx. "Product-tight" means impervious to the hazardous material which is contained, or is to be contained, so as to prevent the seepage of the hazardous material from the primary containment. To be product-tight, the containment shall be made of or created by a material that is not subject to physical or chemical deterioration by the hazardous material or naturally occurring contaminants being contained.

xyyy. "Radioactive" means any material or combination of materials that has a specific activity greater than 0.002 microcuries per gram.

yyzz. "Release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or dispensing outside of the primary containment.

zaaa. "Retail sales occupancy" means the occupancy or use of a building or structure or any portion thereof for displaying, selling or buying of goods, wares or merchandise.

aaabbb. "Secondary containment" means the level of containment external to and separate from the primary containment and which 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.

bbbccc. "SIC code" means the identification number assigned by the Standard Industrial Classification Code to specific types of businesses.

eeeddd. "Single-walled" means construction with walls made of but one (1) thickness of material. Laminated, coated or clad materials shall be considered as single-walled.

dddeee. "Spill control" means rooms, buildings or areas used for the storage of hazardous material liquids with provisions to prevent the flow of liquids to adjoining areas.

eeefff. "Spontaneously combustible liquid" means:

1. **A pyrophoric liquid.** A pyrophoric liquid is a liquid that, even in small quantities and without an external ignition source, can ignite within five (5) minutes after coming in contact with air when tested according to 173 of 49 CFR.

2. **A self-heating liquid.** A self-heating liquid is a liquid that, when in contact with air and without an energy supply, is liable to self-heat. A liquid of this type exhibits spontaneous ignition or the temperature of the sample exceeds two hundred (200) degrees Celsius during the twenty-four (24) hour test period when tested in accordance with 173 of 49 CFR.

fffggg. "Spontaneously combustible solid" means:

1. **A pyrophoric solid.** A pyrophoric solid is a solid that, even in small quantities and without an external ignition source, can ignite within five (5) minutes after coming in contact with air when tested according to 173 of 49 CFR.

2. **A self-heating solid.** A self-heating solid is a solid that, when in contact with air and without an energy supply, is liable to self-heat. A solid of this type exhibits spontaneous ignition or the temperature of the sample exceeds two hundred (200) degrees Celsius during the twenty-four (24) hour test period when tested in accordance with 173 of 49 CFR.

ggghhh. "Stationary tank" means any packaging designed primarily for stationary installation not intended for loading, unloading or attachment to a transport vehicle as part of its normal operation in the process of use.

iiihhh. "Storage facility" is a facility that stores, handles or uses one (1) or a combination of tanks, sumps, reservoirs, wet floors, waste treatment facilities, pipes, vaults or other portable or fixed containers, used, or designed to be used, for the storage of hazardous materials or other regulated materials at a facility.

jjjii. "STP" is an abbreviation for standard temperature and pressure and means zero (0) degrees Celsius ~~temperature~~, or thirty-two (32) degrees Fahrenheit, at one (1) atmosphere of pressure (14.7 psia).

kkkjjj. "Sump" means a pit or well in which liquids collect.

lllkkk. "Temporary" means not to exceed one (1) year.

mmmlll. "Threatened release" means a condition creating a substantial probability of harm when the probability and potential extent of harm make it reasonably necessary to take immediate action to prevent, reduce or mitigate damages to persons, property or the environment.

nnnmmmm. "Trade secret" means trade secrets as defined in subdivision (d) of Sec. 6254.7 of the Government Code and Sec. 1060 of the Evidence Code.

oooann. "Unauthorized discharge" means any release or emission of any hazardous material or other regulated material which does not conform to the provisions of this chapter, unless such release is in accordance with the release regulations of the Bay Area Air Quality Management District and California Air Resources Board, with a National Pollutant Discharge Elimination System Permit, with waste discharge requirements established by the Regional Water Quality Control Board pursuant to the Porter-Cologne Water Quality Act, or with local sewer pretreatment requirements for publicly owned treatment works.

#### **SEC. 24.1.4. Professional assistance for city determinations.**

Whenever the approval or satisfaction of the city may be required in this chapter for a design, monitoring, testing, evaluation, or technical submittal by an applicant or permittee, the city may, in its discretion, require such applicant or permittee, at such applicant's or permittee's sole cost and expense, to retain a suitably qualified independent engineer, or chemist, or other appropriate professional consultant, acceptable to the city, for the purpose of evaluating and rendering a professional opinion respecting the adequacy of such submittal, design, monitoring, testing, or evaluation to achieve the purposes of this chapter. ~~€~~The city shall be entitled to rely on such evaluation and/or opinion of such engineer, chemist or professional consultant in making the relevant determinations provided for in this chapter.

## DIVISION II. MATERIALS REGULATED.

### SEC. 24.2.0. Materials regulated.

The materials regulated by this chapter shall consist of any materials that, because of their quantity, concentration or physical or chemical characteristics, pose a significant present or potential physical or health hazard to human health and safety, ~~to~~ property or ~~to~~ the environment if released into the workplace or the environment. These shall include, but not be limited to:

- a. Any material regulated under Sec. 25501 or 25532 of Chapter 6.95 of the California Health and Safety Code.
- b. Any material regulated under Sec. 25281 of Chapter 6.7 of the California Health and Safety Code.
- c. Any material regulated by the California Fire Code.
- d. Any material regulated under Division 20, Chapter 6.5, of the California Health and Safety Code.
- e. Any material regulated under Chapter 6.67, Sec. 25270.5(c), of the California Health and Safety Code.
- f. Any material which a handler or the city has a reasonable basis for believing would be injurious to the health, safety and welfare of persons or property or harmful to the environment if released into the workplace or the environment.

### SEC. 24.2.1. Exclusions.

This chapter excludes the following materials from hazardous materials permit fees. These materials may be required to be reported or included in a ~~hazardous materials management business plan (HMMPHMBP)~~ when the fire chief or his/her designee so determines and where such action would be appropriate and consistent with achieving the general obligations of ~~this chapter for~~ protecting public health, safety and welfare. In addition, the following materials shall comply with all applicable requirements in Division III (Storage, Handling and Dispensing Standards) of this chapter.

- a. **Retail products.** Hazardous materials meeting all of the following requirements: (1) contained solely in consumer products with a container capacity not exceeding five (5) gallons or fifty (50) pounds; (2) packaged for distribution to, and use by, the general public; (3) whose contents are not dispensed from their original

containers at the storage facility; and (4) located in an area defined as a “retail sales occupancy” per Article I, Division I of this chapter.

b. **Medicinal products.** Oxygen and nitrous oxide, ordinarily maintained by a physician, dentist, podiatrist, veterinarian or pharmacist at his or her office or place of business, stored at each office or place of business in quantities of not more than one thousand (1,000) cubic feet of each material at any one time.

c. **Food and beverage products.** Noncryogenic carbon dioxide compressed gas used in the direct dispensing of food or beverages at restaurants, delicatessens, pubs or other public eating or drinking establishments.

d. **Stationary Storage Battery Systems.** Batteries used for facility standby power, emergency power or uninterrupted power supplies in which the liquid electrolyte in the cells is immobilized (i.e., AGM-absorptive glass mat, gel cell) and contain less than 55 gallons (aggregate) quantity.

e. **Minimum quantities.\*** Hazardous materials whose aggregate quantity in a hazard class does not exceed the limits specified below:

Maximum Quantity	Hazard Class
10 gallons	Miscellaneous hazardous material liquid
10 gallons	Combustible liquid
10 gallons	Corrosive liquid
10 gallons	Flammable liquid
10 gallons	Oxidizer liquid
50 pounds	Miscellaneous hazardous material solid
50 pounds	Corrosive solid
50 pounds	Flammable solid
50 pounds	Oxidizer solid
200 cubic feet	Nonflammable gas
200 cubic feet	Flammable gas

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\*Minimum quantity exclusions do not apply to hazardous substances stored in underground storage tanks.

f. **Exemption.** The city shall exempt any material from the requirements of this chapter where it has been demonstrated to the satisfaction of the city that the material in the quantity and/or solution stored does not present a significant actual or potential hazard to the public health, safety or welfare.

**SEC. 24.2.2. Underground storage tanks.**

This chapter hereby adopts by reference: Chapter 16 of Division 3 of Title 23 of the California Code of Regulations "Underground Storage Tank Regulations," Sec. 25280-25299.7 of Chapter 6.7 of Division 20 of the California Health and Safety Code "Underground Storage of Hazardous Substances," applicable federal law, and all other laws, regulations and guidelines adopted thereto regulating the storage of hazardous substances in underground storage tanks.

The city may adopt and enforce any regulation, requirement, or standard of performance that is more stringent than a regulation, requirement, or standard of performance in effect under Chapter 16 of Division 3 of Title 23 of the California Code of Regulations, Chapter 6.7 of Division 20 of the Health and Safety Code or applicable federal law, if the regulation, requirement, or standard of performance is consistent with these laws and with the general obligation of protecting health, safety, and welfare of persons, resources, or property.

In no case shall any regulation, requirement, or standard of performance for hazardous substances stored in underground storage tanks be less restrictive than the state and federal laws and regulations cited above. In cases where requirements in this chapter conflict with the state and federal requirements for hazardous substances stored in underground storage tanks cited above, the more restrictive shall apply.

This chapter shall not be construed to preclude or deny the right of the city to regulate underground storage tanks which are not subject to state or federal laws or regulations.

**SEC. 24.2.3. Aboveground storage tanks.**

This chapter hereby adopts by reference California Health and Safety Code Division 20, Chapter 6.67, Sec. 25270.5(c), applicable federal law, and all other laws, regulations and guidelines adopted thereto regulating aboveground storage tanks.

The city may adopt and enforce any regulation, requirement or standard of performance that is more stringent than a regulation, requirement or standard of performance in effect under the state and federal laws and regulations cited in this section if the regulation, requirement or standard of performance is consistent with these laws and with the general obligation of protecting health, safety and welfare of persons, resources or property.

In no case shall any regulation, requirement or standard of performance for aboveground storage tanks be less restrictive than the state and federal laws and regulations cited above. In cases where requirements in this chapter conflict with the

state or federal requirements for aboveground storage tanks cited above, the more restrictive shall apply.

This chapter shall not be construed to preclude or deny the right of the city to regulate aboveground storage tanks which are not subject to state or federal laws or regulations.

**SEC. 24.2.4. Hazardous waste treatment.**

This chapter hereby adopts by reference Division 4.5, Title 22 of the California Code of Regulations (Department of Toxic Substances Control), California Health and Safety Code Division 20, Chapter 6.5, applicable federal law, and all other laws, regulations and guidelines adopted thereto regulating hazardous waste treatment.

The city may adopt and enforce any regulation, requirement or standard of performance that is more stringent than a regulation, requirement or standard of performance in effect under the state and federal laws and regulations cited in this section if the regulation, requirement or standard of performance is consistent with these laws and with the general obligation of protecting health, safety and welfare of persons, resources or property.

In no case shall any regulation, requirement or standard of performance for hazardous waste treatment be less restrictive than the state and federal laws and regulations cited above. In cases where requirements in this chapter conflict with the state or federal requirements for hazardous waste treatment cited above, the more restrictive shall apply.

**DIVISION III. STORAGE, HANDLING, AND DISPENSING STANDARDS.**

**SEC. 24.3.0. Storage, handling and dispensing of hazardous or other regulated materials.**

Storage, handling and dispensing of hazardous or other regulated materials shall be in conformance with this division. In the absence of direct regulation by this division, other appropriate regulations, standards, laws, ordinances or other nationally recognized and accepted methods of good practice may be required when storage, handling or dispensing practices do not meet the purpose and general obligation of this chapter to protect the public health, safety and welfare and the environment. In the event of conflicting authorities or conflicts with other codes, the ~~more~~ restrictive shall apply.

a. **Compressed gas cylinder storage.** All compressed gas cylinders in storage shall be adequately secured by approved noncombustible straps, chain, wire, etc., to

prevent falling or being knocked over. All compressed gas cylinders in storage shall have their valve assemblies protected by a D.O.T.-approved bonnet.

Compressed gas containers, cylinders and tanks shall not be placed near elevators, unprotected platform ledges or other areas where falling would result in compressed gas containers, cylinders or tanks being allowed to drop distances exceeding one-half (1/2) the height of the container, cylinder or tank.

b. **Compressed gas cylinder use.** All compressed gas cylinders in service shall be adequately secured to prevent falling or being knocked over except for cylinders in the process of examination, servicing or filling. Securement may include chaining cylinders to stationary bracing, chaining cylinders onto secured transport carts or other means acceptable to the city.

c. **Container compatibility.** Containers, piping and equipment used for storing or handling hazardous or other regulated materials shall be compatible with the hazardous or other regulated materials they store or handle. In general, flammable and combustible materials are compatible with metal whereas corrosive materials are compatible with plastic (polyethylene or polypropylene).

d. **Design, construction and installation of hazardous materials storage facilities.**

1. All storage facility installation, construction, repair or modification, closure and removal shall be completed under permit to the satisfaction of [the city](#). [The c](#)City shall have the discretion to exempt an applicant from any specific requirement other than those for underground storage tanks or to impose reasonable additional or different requirements based on other appropriate regulations, standards, laws, ordinances or other nationally recognized and accepted methods of good practice in order to better secure the purpose and general obligation of this chapter for protection of public and environmental health, safety and welfare.

2. Containers, cylinders and tanks shall be designed and constructed in accordance with nationally recognized standards or comply with the standard of duty as defined in Chapter [47-80](#) of the [2010-2012 California-International](#) Fire Code, as amended.

3. Equipment, machinery and processes utilized for storage, use or dispensing of hazardous or other regulated materials shall be approved, listed or designed and constructed in accordance with approved standards for the intended use or comply with the standard of duty as defined in Chapter [47-80](#) of the [2010-2012 California-International](#) Fire Code, as amended. Such equipment, machinery and processes shall be maintained in an operable condition.

4. Piping, tubing, valves and fittings conveying hazardous or other regulated materials shall be installed in accordance with approved standards and meet the following requirements:

(a) They shall be designed and fabricated from materials of adequate strength and durability to withstand the pressure, structural and seismic stress, and exposure to which they are subject.

(b) 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 or other regulated materials.

(c) Piping and tubing utilized for the transmission of liquids having a health hazard ranking of 3 or 4 in accordance with [the National Fire Protection Association \(NFPA\) Standard 704](#) shall have welded or brazed connections throughout unless the piping or tubing is provided with a receptor for containment if the material is a liquid.

(d) Piping and tubing utilized for the transmission of liquids having a health hazard ranking of 3 or 4 in accordance with NFPA 704 in pressurized piping above fifteen (15) psig shall be provided with excess flow control. When 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 or tubing originates from a bulk source, the excess flow control shall be located as close to the bulk source as practical.

(e) Piping and tubing utilized for the transmission of liquids having a health hazard ranking of 3 or 4 in accordance with NFPA 704 shall be provided with readily accessible manual or automatic remotely activated fail-safe emergency shutoff valves at the following locations:

- i. The point of use.
- ii. The tank, cylinder or bulk source.

e. **Dispensing and mixing.** Dispensing and mixing of hazardous or other regulated materials must not be done in such a manner as to substantially increase the risk of fire or unauthorized discharge.

Dispensing and mixing of flammable or combustible liquids shall meet the following conditions:

1. Positive displacement pumps shall be provided with pressure relief discharging back to the tank, pump suction or other suitable location or shall be provided with interlocks to prevent overpressure.

2. When gases are introduced to provide for liquid transfer by pressure, only inert gases shall be used and controls, including pressure-relief devices, shall be provided to limit the pressure so that it cannot exceed the maximum working pressure of tanks, containers and piping systems. When devices operating through pressure with a tank or container are used, the tank or container shall be a pressure vessel approved for the intended use. Air or oxygen shall not be used for pressurization.

3. Liquids with closed-cup flash points below one hundred forty (140) degrees Fahrenheit in containers greater than five (5) gallon capacity shall be transferred by one (1) of the following methods:

(a) From safety cans.

(b) Through an approved closed piping system.

(c) From containers or tanks by an approved pump taking suction through an opening in the top of the container or tank.

(d) From containers or tanks by gravity through an approved self- or automatic-closing valve when the container or tank and dispensing operations are provided with spill control and secondary containment. Liquids with a flash point below seventy-three (73) degrees Fahrenheit and boiling point below one hundred (100) degrees Fahrenheit shall not be dispensed by gravity.

4. Liquids with a closed-cup flash point below seventy-three (73) degrees Fahrenheit and boiling point below one hundred (100) degrees Fahrenheit in containers greater than five (5) gallon capacity shall not be dispensed into containers unless the nozzle and containers are electrically interconnected. Acceptable methods of electrical interconnection include:

(a) Metallic floor plates on which containers stand while filling when such floor plates are electrically interconnected to the fill stem.

(b) Where the fill stem is bonded to the container during filling by means of a bond wire.

f. **Drainage system.** Drainage required to prevent accumulation of liquid within secondary containment shall be controlled by a drainage system approved by the city. The drainage system shall control the discharge flow in a manner that prevents hazardous or other regulated materials from being discharged to the environment, sanitary sewer or storm drain system in violation of local, state or federal discharge requirements.

g. **Empty containers.** Empty containers and tanks previously used for the storage of hazardous or other regulated materials shall be free from residual material and vapor as defined by D.O.T., [Resource Conservation and Recovery Act \(R.C.R.A.\)](#) or other regulating authority or maintained as specified for the storage of hazardous material. Tanks and containers, when empty, shall have the covers or plugs immediately replaced in openings.

h. **Flammable, oxidizing and pyrophoric gases.**

1. Low-melting-point materials, such as aluminum, copper and some brass alloys, or materials which soften on fire exposure, such as nonmetallic materials, or nonductile materials, such as cast iron, shall not be used for piping, valves or fittings conveying flammable, pyrophoric or oxidizing gases unless they are in accordance with one (1) of the following:

(a) Suitably protected against fire exposure by fire-resistive construction, gas cabinets, automatic fire sprinklers or other approved methods.

(b) Located so that any release resulting from failure will not unduly expose persons, buildings or structures.

(c) Located where leakage can readily be controlled by operation of an accessible, remotely located valve or valves.

2. Compressed gas systems conveying flammable, oxidizing or pyrophoric gases shall be provided with emergency shutoff systems that can be activated from each point of use and at each source. A readily accessible shutoff valve is acceptable for shutoff at the source.

3. Containers of liquefied flammable gases and flammable gases in solution shall be in the upright position or positioned such that the pressure-relief valve is in direct contact with the vapor phase of the container.

i. **General housekeeping.** Areas where hazardous or other regulated materials are stored (including empty containers previously storing hazardous materials) shall be neat and orderly and not obstruct exits or travel pathways.

j. **Grounding and bonding.** When liquids with a closed-cup flash point less than one hundred forty (140) degrees Fahrenheit are dispensed and where accumulation of static electricity or flammable vapors could occur, adequate grounding and bonding shall be provided. Grounding rods shall: (1) be composed of one-half (1/2) inch thick copper; (2) extend at least eight (8) feet into the ground; and (3) terminate in the ground. The container being dispensed from shall be bonded to the grounding rod or other grounded container via four (4) WG wires.

k. **High-temperature and low liquid-level control.** Process tanks and equipment which involve temperature control of the hazardous or other regulated material shall be provided with a high-temperature and low liquid-level shutoff or other acceptable limit controls for maintaining the temperature and product level within a safe range. These controls shall be maintained according to the manufacturer's specifications and shall be inspected by the owner/operator at least a minimum of once per month monthly as approved by the fire chief or his/her designee.

l. **Maintenance.** Defective containers, cylinders and tanks shall be removed from service, repaired or disposed of in an approved manner. Equipment, machinery and processes found to be defective shall be replaced, repaired or removed from service.

Aboveground stationary tanks not used for a period of ninety (90) days shall be properly safeguarded or removed in a manner approved by the fire chief or his/her designee. Such tanks shall have the fill line, gauge opening and pump connection secured against tampering. Vent lines shall be properly maintained. Tanks which are to be placed back into service shall be tested in a manner approved by the fire chief or his/her designee.

m. **Monitoring (leak detection).**

1. All storage facilities containing hazardous or other regulated materials which are liquids or solids at normal temperature and pressure shall be designed and constructed with leak detection systems capable of detecting escape of the hazardous or other regulated materials from the primary containment. No facility shall be placed into operation without an approved leak detection system.

2. Monitoring shall include visual inspection of the primary containment wherever practical; however, if the visual inspection is not practical, an alternative method of monitoring each storage facility on a monthly or more frequent basis may be approved by the city. The city will consider: (a) the magnitude and severity of the potential effects of discharges; (b) the reliability of the monitoring method or device based on past use history; (c) the quality of the installation of the monitoring device and

associated hardware and software; (d) the ability of the permittee to properly perform or use the monitoring method or device; (e) the ability of the permittee to maintain the monitoring device in proper working order; (f) the quantity and quality of the manufacturer's testing and performance specifications; and (g) the quality and quantity of third-party testing of the monitoring method or device when determining the required monitoring method or device and monitoring frequency for a storage facility.

Proposed monitoring methods and devices shall be approved by [the](#) city prior to installation and use by the permittee or applicant.

3. Method(s) of monitoring may include, but are not limited to, pressure testing, vacuum testing, hydrostatic testing, liquid sensors, pressure sensors, flow sensors and vapor analysis within well(s). Well installation shall be approved by the city and the Santa Clara Valley Water District.

4. Whenever monitoring devices are provided, they shall be connected to attention-getting visual and audible alarms. The alarms shall be located in areas normally staffed with personnel trained in emergency response procedures. Whenever monitoring devices or methods are provided, they shall be fully functional at all times. Facility owners/operators shall be able to provide back-up monitoring devices or methods approved by the city to be used in the event of failure of the primary monitoring system.

5. Whenever monitoring devices are provided they shall be tested at one of the following frequencies: (a) not less than annually; (b) in accordance with the approved manufacturer's requirements; or (c) in accordance with approved recognized industry standards.

6. Monitoring devices that have not been installed in the city or do not have a proven ~~use-track~~ record of use as determined by the fire chief or his/her designee may be approved by the city for up to six (6) months on a trial basis. Should the monitoring device not meet the owner/operator's minimum monitoring requirements, either due to faulty equipment, faulty installation, the inability of the device to meet the manufacturer's claims or specifications or other administrative or engineering problems, the owner/operator shall be required to remove the temporary monitoring device from service and install an approved monitoring device or method within fifteen (15) working days.

**n. Overfill protection (limit-level control) and overspill protection.** Containers used for the accumulation of hazardous or other regulated material liquids shall be equipped with a limit-level (overfill) control which will prevent overfilling of the containers, except for containers monitored by a system which will limit net contents by weight. A limit-level control may include visual observation when the level of liquid in the container being filled is within sight of the operator and the filling

device is within his/her immediate control. These controls shall be maintained according to the manufacturer's specifications and shall be inspected by the owner/operator at least monthly as approved by the fire chief or his/her designee.

o. **Protection from vehicles.** Guard posts or other approved means shall be provided to protect storage tanks and connected piping, valves and fittings; dispensing areas; and use areas subject to vehicular damage. When guard posts are required, the posts shall meet the following criteria:

1. Constructed of steel not less than four (4) inches in diameter and concrete-filled.
2. Spaced not more than four (4) feet ~~apart~~ on center.
3. Set not less than three (3) feet deep in a concrete footing of not less than a fifteen (15) inch diameter.
4. Set with the top of the post not less than three (3) feet above ground.
5. Located not less than five (5) feet from the tank.

The area surrounding an exterior storage area or aboveground tank shall be kept clear of combustible materials for a minimum distance of thirty (30) feet.

p. **Safety storage cabinets.** When safety storage cabinets are used to store hazardous or other regulated materials, they shall comply with the following:

1. Constructed of metal.
2. Interior surfaces shall be lined, coated or constructed of material that is nonreactive and compatible with the hazardous or other regulated materials stored.
3. Steel thickness of not less than 0.044 inch (18 gauge).
4. Cabinet and doors shall be double-walled with one and one-half (1.5) inches air space between the walls.
5. Joints shall be riveted or welded and shall be tight-fitting.
6. Doors shall be well-fitted and self-closing. Safety storage cabinets for toxics and highly toxics shall also be equipped with a self-latching device.
7. Cabinet bottom shall be liquid-tight to a minimum of two (2) inches.

8. Shall be labeled as per the requirements of Sec. 24.3.9 [of this chapter](#).

q. **Secondary containment.** Secondary levels of containment shall be required for all new storage facilities (constructed or installed after January 1, 1984) intended for the storage of hazardous materials which are liquids or solids at normal temperature and pressure unless exempted by [the](#) city. Secondary levels of containment may be required for existing storage facilities (those in business prior to January 1, 1984) if it is determined by the fire chief or his/her designee that the primary containment is not providing suitable storage. "Suitable storage" shall be determined by and based on a number of factors, including the age of the containment, condition and integrity of the containment, amount of spillage on or around the containment, proximity of the containment to storm drains, sewers or other environmentally sensitive receptors, general housekeeping practices in maintaining the containment, etc.

1. All primary containment shall be product-tight.

2. Secondary containment:

(a) All secondary containment shall be constructed of materials of sufficient thickness, density and composition so as not to be structurally weakened as a result of contact with the discharged hazardous materials and so as to be capable of containing hazardous materials discharged from a primary container for a period of time equal to or longer than the maximum anticipated time sufficient to allow detection and recovery of the discharged hazardous or other regulated material.

(b) In the case of an installation with one (1) primary container, the secondary containment shall be large enough to contain at least one hundred ten (110) percent of the volume of the primary container.

(c) In the case of a storage facility with multiple primary containers, the secondary container shall be large enough to contain one hundred fifty (150) percent of the volume of the largest primary container placed in it or ten (10) percent of the aggregate internal volume of all primary containers in the storage facility, whichever is greater.

(d) Secondary containment shall not provide for the accumulation or storage of liquids (hazardous material liquids, precipitation, condensate, etc.).

(e) If the storage facility is equipped with an automatic fire extinguishing system, then the secondary containment shall be able to additionally accommodate the fire extinguishing system flow for a period of twenty (20) minutes.

3. Laminated, coated or clad materials shall be considered single-walled and shall not be construed to fulfill the requirements of both primary and secondary containment.

r. **Separation of materials.** Materials that in combination may cause a fire or explosion or the production of a flammable, toxic or poisonous gas or the deterioration of a primary or secondary container shall be separated in both the primary and secondary containment so as to avoid potential intermixing. Separation shall be accomplished by:

1. Segregating incompatible materials storage by a distance of not less than twenty (20) feet and an independent secondary containment system. This twenty (20) foot distance is not required if the secondary containment systems for the incompatible materials can be shown to completely isolate all possible spillage (including container falling if containers are stacked on top of one another) so that intermixing cannot occur.

2. Isolating incompatible materials storage by a noncombustible partition extending not less than eighteen (18) inches above and to the sides of the stored material.

3. Storing liquids and solid materials in hazardous materials storage cabinets.

4. Storing compressed gases in gas cabinets or exhausted enclosures.

Materials which are incompatible shall not be stored within the same cabinet or exhausted enclosure.

s. **Shelf storage.** Shelves used for storing hazardous or other regulated material shall be of substantial construction and adequately braced and anchored to an immovable object. The face of each shelf shall be provided with a nonflexible lip or guard to prevent individual containers from falling off except when contained inside an approved hazardous materials safety storage cabinet.

t. **Shock-sensitive materials.** Materials which are shock-sensitive shall be padded, suspended or otherwise protected against accidental dislodgement and dislodgement during seismic activity. For seismic requirements, see [Mountain View City Code \(MVCC\), Chapter 8, and](#) the [California Building Code as amended](#).

u. **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 (1) 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 locations or similar areas provided with liquid-tight raised or recessed sills or dikes.
3. Sumps and collection systems.
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.

v. **Temperature control.** Hazardous or other regulated materials which must be stored at temperatures other than ambient temperature to prevent a hazardous reaction shall be stored in approved areas or containers which provide a means to maintain the temperature within a safe range. Redundant temperature control which will operate upon failure of the primary temperature control system shall be provided. Alternate means to prevent a hazardous materials reaction may be provided. These controls shall be maintained according to manufacturer's specifications and shall be inspected by the owner/operator at least monthly as approved by the fire chief or his/her designee.

w. **Transportation of hazardous or other regulated materials inside facilities.**

1. Hazardous or other regulated material liquids in containers exceeding a five (5) gallon capacity in an exit corridor or exit enclosure shall be transported on a cart or truck. Containers of hazardous or other regulated materials having a hazard ranking of 3 or 4 in accordance with NFPA 704 transported within exit corridors or exit enclosures shall be on a cart or truck. The following exceptions apply:

(a) Two (2) hazardous materials liquid containers which are hand-carried in acceptable safety carriers.

(b) Single drums not exceeding fifty-five (55) gallons which are transported by suitable drum trucks.

(c) Containers and cylinders of compressed gases which are transported by approved hand trucks and containers and cylinders not exceeding twenty-five (25) pounds which are hand-carried.

(d) Solid hazardous or other regulated materials not exceeding one hundred (100) pounds which are transported by approved hand trucks and a single container not exceeding fifty (50) pounds which is hand-carried.

2. When carts or trucks are required, they shall meet the following requirements:

(a) They shall be designed to provide a stable base for the commodities to be transported and shall have a means of restraining containers to prevent accidental dislodgement.

(b) They shall be provided with a device which will enable the operator to safely control movement by providing stops or speed-reduction devices.

(c) They shall be constructed of material compatible with the material transported and be of substantial construction.

(d) They shall be capable of containing the largest single container transported.

(e) They shall not obstruct or be left unattended within a part of an exit.

(f) They shall not be used to transport incompatible materials together.

x. **Travel path clearance.** When hazardous or other regulated materials are moved into or out of a storage facility, they shall remain in the travel path only for the time reasonably necessary to transport the material and such movement shall be in a manner which will not result in an unauthorized discharge.

y. **Ventilation.** Indoor storage areas and storage buildings shall be provided with mechanical exhaust ventilation or natural ventilation where natural ventilation can be shown to be acceptable for the materials as stored. Signs indicating that the ventilation provided is not acceptable include corrosion of fixtures, high vapor levels, etc. If the ventilation is not acceptable, the fire chief or his/her designee may request professional assistance as described in Sec. 24.1.4 to help in determining the size, amount and location of additional ventilation required.

1. Exhaust ventilation shall be arranged to consider the density of the potential fumes or vapors released. For fumes or vapors that are heavier than air, exhaust shall be taken from a point within twelve (12) inches of the floor.

2. The location of both the exhaust and inlet air openings shall be arranged to provide air movement across all portions of the floor or room to prevent the accumulation of vapors.

3. Exhaust ventilation shall not be recirculated within the room or building if the materials stored are capable of emitting hazardous vapors.

z. **Alternative means and methods.** The fire chief or his/her designee is authorized to approve alternate materials, methods or engineering controls provided ~~that~~ the fire chief or his/her designee finds that the proposed materials, methods or engineering controls satisfactorily comply with the intent of this section and the materials, methods or engineering control are at least equivalent to that prescribed in this section in quality, strength, effectiveness, resistance, durability and safety.

Requests for approval to use an alternate facility, materials, methods or engineering controls s shall be made in writing to the fire chief or his/her designee and shall be accompanied by a full statement of the conditions. Sufficient evidence or proof shall be submitted to substantiate any claim that may be made regarding its performance. The fire chief or his/her designee may require tests and the submission of a test report from an approved testing organization to substantiate the equivalency of the proposed alternate facility, materials, methods or engineering controls s.

Approval of a request for use of an alternate facility or engineering control shall be limited to the particular case covered by request and shall not be construed as establishing any precedent for any future request.

#### **SEC. 24.3.1. Abandoned storage facilities.**

a. No storage facility shall be abandoned.

b. Storage facilities which are temporarily out of service, and are intended to be returned to use, must continue to be monitored and inspected.

c. Any storage facility which is not being monitored and inspected in accordance with this chapter must be closed or removed in a manner approved by the city in accordance with Sec. 24.27. 2

d. Any person, firm or corporation having an interest, including a leasehold interest, in real property and having reason to believe that an abandoned storage facility

is located upon such property shall make a diligent effort to locate such storage facility and take necessary actions to comply with this section.

e. Whenever an abandoned storage facility is located, a plan for the closing or removing or the upgrading and permitting of such storage facility shall be filed within ninety (90) days of its discovery. A closure plan shall conform to the standards specified in Sec. 24.7.2.

#### **SEC. 24.3.2. Maintenance, repair or replacement.**

a. Permittee will carry out maintenance, ordinary upkeep, and minor repairs in a careful and safe manner. No permit or other approval will be required for such maintenance and upkeep.

b. Any substantial modification or repair of a storage facility other than minor repairs or emergency repairs shall be in accordance with plans to be submitted to the city and approved in accordance with Sec. 24.3.0.d. prior to the initiation of such work.

c. Permittee may make emergency repairs to a storage facility in advance of seeking an additional permit approval whenever an immediate repair is required to prevent or contain an unauthorized discharge or to protect the integrity of the containment. However, within five (5) working days after such emergency repairs have been started, permittee shall seek approval by submitting drawings or other information adequate to describe to [the](#) city the repairs.

d. Replacement of any storage facility for hazardous materials or other regulated materials must be in accordance with this chapter, including secondary containment requirements for new facilities in Sec. 24.3.0.q. of this chapter.

#### **SEC. 24.3.3. Secured facilities.**

Access to the storage facilities shall be secured by means of fences and/or locks. The access to the storage facilities shall be kept securely locked when unattended. Secured buildings or perimeter site security may be accepted as an alternative to locking individual storage facilities.

#### **SEC. 24.3.4. Spill prevention and cleanup equipment.**

Spill prevention and cleanup equipment shall be provided which is reasonable and appropriate for potential emergencies presented by the stored hazardous or other regulated materials. Such equipment shall be regularly tested and adequately maintained. Training in the use of such equipment shall be in accordance with Sec. 24.4.3.

**SEC. 24.3.5. Posting of emergency evacuation procedures.**

When simplified emergency evacuation procedures are required under Sec. 24.4.3 of this chapter, they shall be posted conspicuously in locations where hazardous or other regulated materials are stored and include a map of the facility showing evacuation routes ~~and as well as tele~~phone numbers to obtain help or summon emergency responders.

**SEC. 24.3.6. Materials safety data sheets.**

Materials safety data sheets (MSDS) for all hazardous or other regulated materials regulated by this chapter shall be kept up to date and be readily available on the premises for review by facility personnel or city inspectors. MSDSs shall be provided to city inspectors on request.

**SEC. 24.3.7. Smoking in storage facilities.**

Smoking shall not be permitted in any room where hazardous or other regulated materials are stored or handled, nor within twenty-five (25) feet of outdoor storage areas. The use of open flames or high-temperature devices in a manner which creates a hazardous condition shall not be permitted.

**SEC. 24.3.8. Placarding.**

NFPA 704M diamond placards shall be placed at entrances to locations where hazardous materials are stored or handled, as per the requirements of the fire chief or his/her designee. Placard numbering shall reflect the material posing the highest degree of hazard in the storage facility in a reasonable quantity. In addition, all aboveground storage tanks located outside of buildings shall be placarded with the NFPA 704M diamond placard for the specific material they contain.

Placards shall meet the following criteria:

1. Of durable construction such that they are not defaced or faded during normal operations;
2. Minimum size of ten (10) inches by ten (10) inches with four (4) inch letters for aboveground storage tanks and external doors (doors entering the facility from the outside); and
3. Numbers are contrasting to background.

### SEC. 24.3.9. Labeling.

a. **General.** Markings described below shall meet the following general requirements:

1. Markings shall be made of durable materials and shall be replaced as needed due to normal aging and fading.
2. Markings shall be in English. Markings in other languages shall be provided where appropriate.
3. Unless otherwise specified, lettering shall be large enough to be read from a distance of twenty (20) feet.
4. Lettering shall contrast highly with the background.
5. Markings shall not be located where they might be obstructed (e.g., by open doors, equipment, etc.). Drums with side markings or labels shall be positioned with the markings/labels facing outward.

b. Chemical storage areas, drum and container storage areas, rooms, sheds and cylinder rack storage areas shall be marked as described below:

1. ~~These areas shall be marked w~~With signs showing the hazard class(es) of the chemical(s) stored.
2. Empty container storage areas shall be clearly identified as such.

c. Compressed gases and liquefied gases shall be marked as described below:

1. Gas cylinders shall have marked on the cylinder body or on an attached label the chemical name and hazard class of each gas contained within and, in the case of mixtures, the percentage or parts per million concentration of the hazardous constituents. This information shall be visible from the front side of the cylinder. If the D.O.T. label is not readily visible, a label indicating the D.O.T. hazard class of the gas shall be placed above the cylinder.
2. Gas cabinets shall be marked with the same information as required on cylinders.
3. Excess flow control valves shall be marked to indicate the maximum design flow rate based on air under standard conditions.

d. Piping and tubing containing hazardous material liquids and gases shall be marked as described below:

1. All piping and tubing shall be marked at intervals no greater than twenty (20) feet with the name of the material contained and the direction of flow. Piping and tubing shall be marked at each point where changes in direction occur and where wall, ceiling or floor penetrations occur. Where piping and tubing is shorter than twenty (20) feet in length, such markings shall appear at least once along the piping and tubing run. Where supplementary color identification of piping is used, it shall be in accordance with the hazardous materials and colors indicated in nationally recognized standards as referenced in the California Fire Code;

2. Piping and tubing containing water, compressed air, gas exhaust or other nonhazardous materials may be required to be marked as described in Sec. 24.3.9.d.1, above, if this tubing or piping is contained in the same location or room as tubing or piping containing hazardous or other regulated materials or if so directed by the fire chief or his/her designee.

3. Emergency control valves and shutoff valves shall be marked to indicate their function.

e. Safety cans shall be marked with the chemical name and hazard class of the liquid contained within.

f. Open tanks, vats and baths shall be marked as described below:

1. Open tanks, vats and baths shall be identified with a marking on the tank or on a wall directly behind the vessel. The marking shall show the chemical name, hazard class and percentage concentration of the single highest hazardous material, including constituents of mixtures or solutions contained within the vessel.

2. Rinse-dragout tanks shall be marked "Rinse Water" or equivalent.

g. Aboveground storage tanks shall be marked as described below:

1. ~~Aboveground storage tanks shall be identified w~~With a marking on the tank which shows the chemical name.

2. Aboveground storage tanks containing liquid cryogenics shall also be marked ~~as~~ per the following examples:

	<b>If liquid oxygen is stored</b>	<b>If liquid hydrogen is stored</b>
Tank marking:	LIQUEFIED OXYGEN	LIQUEFIED HYDROGEN FLAMMABLE GAS
Storage site marking:	OXYGEN NO SMOKING NO OPEN FLAMES WITHIN TEN FEET (10')	LIQUEFIED HYDROGEN FLAMMABLE GAS NO SMOKING NO OPEN FLAMES WITHIN FIFTY FEET (50')

3. Aboveground storage tanks containing water, process cooling water, rinse water, deionized water, etc., shall be marked with the name of the material contained.

h. Safety storage cabinets shall be marked as described below:

1. ~~Safety storage cabinets shall be marked w~~With the hazard class(es) of the materials contained.

2. Safety storage cabinets used for the storage of flammable liquid shall ~~display~~be provided with a conspicuous label in red letters on a contrasting background which reads "FLAMMABLE – KEEP FIRE AWAY."

3. Cabinets used for hazardous materials other than flammable liquids shall ~~display~~be provided with a conspicuous label in red letters on a contrasting background which reads "HAZARDOUS – KEEP FIRE AWAY."

**DIVISION IV. HAZARDOUS MATERIALS BUSINESSS MANAGEMENT PLAN.**

**SEC. 24.4.0. Hazardous materials management-business plan.**

a. Each applicant for a permit pursuant to this chapter shall electronically file a written plan, for the city's approval, to be known as a hazardous materials management business plan (HMBMP), which shall demonstrate the safe storage and handling of hazardous or other regulated materials and emergency response capabilities of the applicant. The HMBMP shall be electronically reported in accordance with Division I of this chapter. ~~submitted on forms provided by and acceptable to the city.~~ Approval of the HMBMP shall mean ~~that~~ the facility HMBMP 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 HMBMP or that the applicant has complied with other codes or ordinances. ~~The HMMP may also be referred to as the hazardous materials business plan (HMBP) or environmental compliance plan (ECP). All these names are synonymous.~~

b. Within thirty (30) days of any of the events listed below, any business subject to this chapter shall submit an amendment to the HMBMP:

1. Any changes in the information required on the ~~facility directory~~Business Owner/Operator portion of the HMBMP;

2. Any change in the information required on the facility storage map portion of the HMBMP;

3. Any change of one hundred (100) percent or more in the quantity or any change in the quantity range of a previously disclosed hazardous or other regulated material, or the handling of a previously undisclosed hazardous or other regulated material required on the hazardous materials inventory statement portion of the HMBMP;

4. Any change in the information required on the emergency response plan (contingency plan) portion of the ~~HMBP~~business plan.

c. If ~~after review,~~ the city determines ~~that~~ the handler's ~~HMMP~~HMBP is deficient in any way, the city shall notify ~~the~~ handler of these defects. The handler shall submit a corrected ~~HMMP~~HMBP within thirty (30) days of this notice. If a handler fails after reasonable notice to ~~either submit an HMMP or~~ amend their ~~electronically submitted~~submitted ~~HMMP~~HMBP to accurately disclose the required information, the city ~~may~~shall ~~commence to~~ take appropriate action to enforce this chapter, including the imposition of civil and criminal penalties specified in this chapter.

#### **SEC. 24.4.1. Public record access and trade secrets.**

The ~~HMMP~~HMBP is a public record except for facility storage maps, or as otherwise specified. The information contained therein is subject to trade secret protection pursuant to Health and Safety Code Sec. 25511. ~~The c~~City may refuse access to this record when such disclosure could jeopardize ongoing civil or criminal investigation or litigation.

Persons requesting access to any portion of the ~~business plan or~~ ~~HMMP~~HMBP will be required to complete an application for release of information. The application will require ~~the person to disclose~~:

1. The person's name, address and telephone number;
2. The name and address of the person, business, or governmental agency such person represents;
3. The purpose for which the access is requested; and
4. The identity of the specific files to be examined or request to be copied, including street address and company name (Health and Safety Code Sec. 25506 requires all HMMPHMBPs ~~and business plans~~ to be indexed by street address and company name).

The ~~fire department~~ fire chief or his/her designee will have ten (10) days prior to permitting the review ~~of the requested materials~~ or providing ~~the copies requested~~ to: verify the applicant's identity; determine whether any of the materials requested are exempt from disclosure; and, if necessary, -inform the business whose business plan or HMMPHMBP has been requested.

**SEC. 24.4.2. ~~Standard form~~ Hazardous Materials Business Plan HMMP(HMBP).**

The ~~standard form~~ hazardous materials ~~management-business~~ plan (HMBP) must be ~~submitted and~~ submitted electronically and updated annually at a minimum. The ~~standard form~~ HMMPHMBP shall include the data fields required in Title 27 of the California Code of Regulations as well as all locally required fields. the following:

a. Facility Storage Map. The facility storage map shall be of a legible scale. The information is provided for purposes of ensuring the suitable and secure storage of hazardous or other regulated materials and for the protection and safety of emergency response personnel of the city. The city shall take reasonable precautions to ensure the confidentiality of the information provided on the facility storage map and shall not disclose this information to the public unless ordered to do so by a court of competent jurisdiction.

1. The facility storage map shall depict the entire hazardous materials storage facility, including all interior and exterior spaces/rooms.

2. The facility storage map shall identify (numerically or alphabetically) the location of each hazardous materials storage location. This location shall correlate with the hazardous materials inventory statement.

3. The facility storage map shall indicate the locations of emergency equipment related to each storage facility, building orientation, locations of emergency utilities (gas, water, electric), storm drain locations, sanitary sewer locations, lockbox

(Knox box) locations, locations of MSDSs, and adjacent and cross streets, and the general purpose/use of the other areas within each facility.

4. Applicant or permittee may be required to provide such other information on the facility storage map as the fire chief or his/her designee deems necessary and consistent with the general obligation of this chapter for protection of the health, safety or welfare of persons, resources or property.

~~— a. — Facility directory.~~

~~1. The HMMP shall contain the name and address of the facility and business phone number of applicant, the name and titles and emergency phone numbers of the primary response person and alternates able to assist emergency personnel in the event of an emergency during nonbusiness hours, the number of employees, number of shifts, hours of operation, principal business activity, name and phone number of property owner, SIC code, and signature of a corporate officer of at least the level of vice president, general partner or sole proprietor.~~

~~2. In the case where third parties which do not qualify as corporate officers of at least the level of vice president, general partners, or sole proprietors (herein referred to as “responsible parties”) request permission to store or handle hazardous or other regulated materials, a “designation of authorized representative” (DOAR) form may be signed by the responsible party authorizing the third party to conduct business and sign all reports, including hazardous materials management plans on their behalf. The DOAR shall stay in effect as long as the responsible party continues to be employed at that particular management level at that facility.~~

~~3. Additional information may be required by city to meet the reporting requirements of: (a) other city, county, state or federal agencies; or (b) other regulatory programs administered or enforced by the city.~~

~~4. The information in this section is provided for the purpose of supplementing emergency response capabilities to minimize health, safety and environmental impacts of incidents involving hazardous or other regulated materials. City shall take reasonable precautions to ensure the confidentiality of home phone and home address information of existing facilities provided on the facility directory form.~~

~~— b. — Facility storage map.~~

~~1. The HMMP shall contain a facility storage map at a legible scale. The information in this section is provided for purposes of ensuring the suitable and secure storage of hazardous or other regulated materials and for the protection and safety of emergency response personnel of city. City shall take reasonable precautions to ensure~~

~~the confidentiality of the information provided on the facility storage map and shall not disclose this information to the public unless ordered to do so by a court of competent jurisdiction. Permittee or permit applicant shall be deemed a real party in interest in any such action. City shall endeavor to provide permittee or permit applicant with notice of a lawsuit to compel disclosure, if feasible. However, city shall be under no duty to provide such notice nor to prevent such disclosures.~~

~~2. The facility storage map shall indicate the location of each hazardous or other regulated material storage facility, including all interior, exterior, and underground storage facilities, and access to such storage facilities. In addition, the map shall indicate the location of emergency equipment related to each storage facility, building orientation, locations of emergency utilities (gas, water, electric), storm drain locations, sanitary sewer locations, lockbox (Knox box) locations, storage locations for MSDSs, and adjacent and cross streets, and the general purpose of the other areas within each facility. Applicant or permittee may be required to provide such other information on the facility storage map as the fire chief or his/her designee deems necessary and consistent with the general obligation of this chapter for protection of the health, safety or welfare of persons, resources or property.~~

~~3. Additional information may be required by city to meet the reporting requirements of: (a) other city, county, state or federal agencies; or (b) other regulatory programs administered or enforced by the city.~~

~~c. **Hazardous materials inventory statement.** For each storage facility, the hazardous materials inventory statement (HMIS) shall contain information as prescribed below for hazardous and other regulated materials:~~

~~1. For each hazardous or other regulated material, the hazard class, general chemical name, common/trade name, maximum and average quantity on hand at any given time, the number of days on-site, major constituents and percent concentrations for mixtures, physical and health hazards, type of storage container (drum, tank, etc.), storage pressure, storage temperature, and CAS number. For each waste material, the presence of waste, the annual waste throughput, and the State of California waste code, and a description of the final disposition of the waste (recycled, treated, or hauled off-site) shall also be indicated.~~

~~2. For hazardous or other regulated materials which can be classified under more than one hazard class due to their physical or chemical properties, the primary hazard class shall be based on the hazard ranking listed in 49 CFR, Sec. 173.2a.~~

~~3. For tanks, sumps or reservoirs containing hazardous or other regulated materials, the capacity limit of each tank, sump or reservoir shall be listed individually along with all items described under Sec. 24.4.2.c.1 above.~~

~~4. For documents listing hazardous or other regulated materials which are claimed by the business as a trade secret, the documents shall be stamped "confidential" in legible type.~~

~~5. Additional information may be required to meet the disclosure requirements of the California Code of Regulations, Title 19, Sec. 2729, "Inventory of Hazardous Materials," as amended from time to time.~~

~~6. Additional information may be required by city to meet the reporting requirements of: (a) other city, county, state or federal agencies; or (b) other regulatory programs administered or enforced by the city.~~

~~d. **Permit quantity limit.** The permit quantity limit form shall summarize the maximum quantity of hazardous or other regulated materials allowed at each business in terms of individual primary hazard classes and their corresponding quantity ranges. Quantity ranges shall be defined as follows:~~

<b>Quantity Range Number Range</b>	<b>Amounts</b>
1	<del>Less than or equal to 500 pounds for solids, less than or equal to 55 gallons for liquids, and less than or equal to 200 cubic feet at normal temperature and pressure for compressed gases;</del>
2	<del>Greater than 500 but less than or equal to 5,000 pounds for solids, greater than 55 but less than or equal to 550 gallons for liquids, and greater than 200 but less than or equal to 2,000 cubic feet at normal temperature and pressure for compressed gases;</del>
3	<del>Greater than 5,000 but less than or equal to 25,000 pounds for solids, greater than 550 but less than or equal to 2,750 gallons for liquids, and greater than 2,000 but less than or equal to 10,000 cubic feet at normal temperature and pressure for compressed gases;</del>
4	<del>Greater than 25,000 but less than or equal to 50,000 pounds for solids, greater than 2,750 but less than or equal to 5,500 gallons for liquids, and greater than 10,000 but less than or equal to 20,000 cubic feet at normal temperature and pressure for compressed gases;</del>
5	<del>Greater than 50,000 but less than or equal to 100,000 pounds for solids, greater than 5,500 but less than or equal to 10,000 gallons for liquids, and greater than 20,000 but less than or equal to 50,000 cubic feet at normal temperature and pressure for compressed gases;</del>

Quantity Range Number Range	Amounts
6	Greater than 100,000 pounds for solids, 10,000 gallons for liquids, or 50,000 cubic feet at normal temperature and pressure for compressed gases.

~~— e. **Underground storage tank application.** The underground storage tank application form shall contain information prescribed in Article 10, Sec. 2711 of Chapter 16 of Division 3 of Title 23 of the California Code of Regulations “Underground Storage Tank Regulations,” Chapter 6.7 of Division 20 of the Health and Safety Code, applicable federal law, and all other laws, regulations and guidelines adopted thereto.~~

~~— f. **Monitoring (leak detection) program.** The HMMP shall contain a description of the location, type, manufacturer specifications (if applicable), and suitability of monitoring methods to be used in each storage facility storing hazardous or other regulated materials which are liquids or solids at normal temperature and pressure. It shall also specify the frequency of inspections of storage facilities which will be conducted by the permittee. These inspections shall be for the purpose of detecting malfunctions and deterioration, operator’s errors, poor housekeeping practices, unauthorized discharges of hazardous or other regulated materials, and achieving compliance with this chapter, and other applicable local, state and federal laws and regulations. In lieu of submitting this information with the HMMP, it may be reviewed during the annual facility inspection, at the discretion of the fire chief or his/her designee.~~

~~— g. **Record keeping forms.** The HMMP shall contain an inspection check sheet or log designed to be used in conjunction with routine inspections. The check sheet or log shall provide for the recording of the date and time of inspection and, for monitoring activity, the date and time of any corrective action taken, the name of the inspector, and the countersignature of the designated safety manager for the facility or the responsible official as designated in the HMMP. In lieu of submitting this information with the HMMP, it may also be reviewed during the annual facility inspection, at the discretion of the fire chief or his/her designee.~~

~~— h. **Emergency equipment.** The HMMP shall describe emergency equipment availability, testing, and maintenance, if required under Sec. 24.4.3~~

~~— i.a.b. **Variation in information.**~~

1. Additional information may be required ~~infor~~ the HMMP~~HMMP~~ where such information is reasonably necessary to meet the intent of this chapter.

2. Requirements for information in the HMMPHMBP may be waived where such information is not reasonably necessary to meet the intent of this chapter.

~~3. Whenever permit applicant or permittee has submitted a plan which includes substantially the same information as is required for any component(s) of the HMMP to any other public agency regulating hazardous materials, such plan, upon city approval, may be submitted to city in lieu of such component(s). The city may give deference to any approval of such plan by the other public agency.~~

**SEC. 24.4.3. Supplemental requirements for emergency response plans (contingency plan).**

a. In addition to the HMMPHMBP requirements set forth in this chapter, any person, firm or corporation which stores, uses or handles a hazardous or other regulated material ~~or a mixture containing a hazardous or other regulated material which has a quantity at any one time during the reporting year equal to, or greater than, a total weight of five hundred (500) pounds, or a total volume of fifty five (55) gallons, or two hundred (200) cubic feet at standard temperature and pressure for compressed gas, in excess of the exempt amounts specified in Sec. 24.2.1,~~ shall establish and implement a plan for emergency response (contingency plan) ~~forth~~through a release or threatened release of a hazardous or other regulated material pursuant to this section. The emergency response plan (contingency plan) shall be submitted electronically with the HMBP.

b. Unless the facility is otherwise exempt as set forth in this chapter, the following information shall be provided:

1. Emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous or other regulated material which includes, but shall not be limited to, the following:

(a) Immediate notification to the city, ~~to~~ the city fire department, and ~~to~~ the State Office of Emergency Services;

(b) Procedures for the mitigation of a release or threatened release to minimize any potential harm or damage to persons, property, or the environment;

(c) Evacuation plans and procedures for the business site, including immediate audible notice and warning to all persons on the site.

c. Training shall be provided for all new employees, in addition to ~~and~~ annual training, including refresher courses, for all employees, in safety procedures to be utilized in the event of a release or threatened release of a hazardous or other regulated

material. Such training shall include, but not be limited to, familiarity with the plans and procedures specified above. These training programs shall take into consideration the technical and managerial responsibilities of each employee.

Responsible persons shall be designated and trained to be liaison personnel for the fire department. These persons shall aid the fire department in preplanning emergency responses and identification of the locations where hazardous or other regulated materials are located, ~~and~~ shall have access to material safety data sheets and shall be knowledgeable in the site emergency response plan and procedures.

d. Any business required to file a pipeline operations contingency plan in accordance with the California Pipeline Safety Act of 1981 (Chapter 5.5 (commencing with Sec. 51010) of Part 3 of Division 1 of Title 5 of the Government Code) and the regulations of the Department of Transportation, found in Part 195 of Title 49 of the Code of Federal Regulations, may file a copy of those plans with the city in lieu of ~~the filing of an~~ emergency response plan specified in subdivision (a), above.

e. Any business operating a farm exempted by Paragraph (5) of subdivision (b) of Sec. 25503.5 of the Health and Safety Code from filing the information specified in subdivisions a.- and b.- shall, notwithstanding this exemption, provide the training programs specified in subdivision c.

f. ~~The city shall maintain records of all emergency~~ Emergency response plans and procedures ~~received and shall index them by street address and company name. Such plans and revisions thereto~~ shall be available for public inspection during regular working hours, as described under Sec. 24.4.1, ~~except for those portions of such plans,~~ including any maps of the facility as described in this chapter, specifying the precise location where hazardous or other regulated materials are stored and handled on-site. ~~The city is required by Health and Safety Code Sec. 25506 to transmit copies of the entire emergency response plan or any information contained therein to any requesting state or local agency.~~

## DIVISION V. RESPONSIBILITY.

### SEC. 24.5.0. Reporting unauthorized discharge.

a. **Liquids and solids at normal temperature and pressure.** As soon as any person in charge of a storage facility or responsible for emergency response for a facility has knowledge of any confirmed or unconfirmed unauthorized discharge of a hazardous or other regulated material which is liquid or solid at normal temperature and pressure, such person shall take all necessary steps to ensure the discovery, ~~and~~ containment and cleanup of such discharge and shall notify the city of the occurrence as required by this subsection.

1. **Confirmed unauthorized discharge.**

(a) **Recordable unauthorized discharge.** Any recordable unauthorized discharge shall be contained and safely disposed of in an appropriate manner and such occurrence and the response thereto shall be recorded in the person's, firm's or corporation's monitoring records. A recordable unauthorized discharge is any unauthorized discharge of a hazardous or other regulated material which meets all of the following criteria:

i. The discharge is from a primary containment to a secondary containment or to a rigid above-ground surface covering capable of containing the discharge until cleanup of the hazardous or other regulated material is completed; and

ii. The discharge is able to be adequately cleaned up before it escapes from such secondary containment or such aboveground surface, but if the cleanup requires more than eight (8) hours, it becomes a reportable discharge in accordance with Sec. 24.5.0.a.1(b) below; and

iii. There is no increase in the hazard of fire or explosion, nor is there any production of a flammable or poisonous gas, nor is there any deterioration of such secondary containment or such rigid, aboveground surface.

iv. ~~Recording of an~~ otherwise recordable ~~An otherwise recordable~~ unauthorized discharge ~~is not required~~ ~~does not need to be recorded~~ ~~does not need to be recorded~~ if the discharge is not the result of the deterioration or failure of the primary container, ~~and~~ the quantity discharged is less than one (1) ounce by weight, and ~~the discharge~~ can be cleaned up within fifteen (15) minutes.

(b) **Reportable unauthorized discharge.** Any unauthorized discharge which is determined not to be recordable under subsection 24.5.0.a.1(a) above, must ~~immediately~~ be reported to city's fire department via the 9-1-1 emergency number ~~immediately~~. The reporting party shall ~~indicate~~ ~~provide information to city relating to~~ the ability of the responsible party to contain and dispose of the hazardous or other regulated material, the estimated time it will take to complete containment and disposal, and the degree of hazard created. ~~The c~~City may verify that the hazardous or other regulated material is being adequately contained and appropriately disposed. At any time ~~the city determines upon a determination that~~ the party performing the containment or disposal: (a) is not adequately containing or disposing of such hazardous or other regulated materials; (b) is not adequately trained to do so; (c) does not have adequate resources or supplies to do so; or (d) does not have a practical or safe containment or disposal plan, the city shall have the power and authority to undertake and direct an emergency response in order to protect the public health, safety, and/or

welfare and the environment. Costs associated with such emergency response shall be borne by the owner, operator, or other person responsible for the unauthorized discharge.

Within fifteen (15) calendar days of a reportable discharge, ~~a report shall be written by~~ the responsible party ~~shall and~~ submitted a written report to the city, ~~including which describes the following:~~

i. ~~A D~~ description of the incident, including actions taken by facility personnel during and immediately following the reportable discharge;

ii. A determination of the cause or causes of the reportable discharge;

iii. Administrative and engineering controls which the responsible party proposes to ~~be implemented~~ to reduce the likelihood ~~offer such~~ a reportable discharge recurring happening in the future;

iv. ~~The~~ target date for completing implementation of ~~such the~~ controls ~~described above~~; and

v. ~~The~~ Signature of a corporate officer of the responsible facility.

## 2. Unconfirmed unauthorized discharge.

(a) **Indication of loss of inventory.** Whenever a material balance, inventory record, or monitoring detection system employed as a monitoring technique under the HMMPHMBP, indicates a loss of hazardous or other regulated material, and no unauthorized discharge has been confirmed by other means, the responsible party shall immediately record such discrepancy in his/her monitoring records, immediately notify the fire department's environmental safety division of the discrepancy situation, and ~~have five (5) working days to~~ within five (5) business days, whether or not there has been an unauthorized discharge. If, before the end of such period, it is determined ~~that~~ there has been no unauthorized discharge, an entry explaining the occurrence shall be made in the responsible party's monitoring records. Where the responsible party has not been able, within such period, to determine ~~that~~ there has been no unauthorized discharge, an unauthorized discharge is deemed confirmed and the responsible party shall proceed in accordance with subsection 24.5.0.a.1(b) above.

(b) **Test results.** Whenever any test results suggest a possible unauthorized discharge, and no unauthorized discharge has been confirmed by other means, the responsible party shall immediately notify the environmental safety division

of the ~~possible discharge situation~~ and ~~shall have five (5) working days to~~ perform two (2) retests, at least twenty-four (24) hours apart, ~~within five (5) business days~~. If both retests' results ~~obtained within that period~~ establish ~~that~~ there has been no unauthorized discharge, the results of all three (3) tests shall be recorded in the responsible party's monitoring records. If it has not been established within such period that there has been no unauthorized discharge, an unauthorized discharge is deemed confirmed and the responsible party shall proceed in accordance with subsection 24.5.0.a.1(b) above.

(c) **Fire.** Whenever a fire occurs in a facility which has or should have a hazardous materials permit, regardless of whether or not any hazardous or other regulated materials were involved, the responsible party shall immediately notify the fire department via the 9-1-1 emergency number. Within fifteen (15) working days of the fire, ~~a report shall be written by~~ the responsible party ~~shall and~~ submitted a written report to the city, ~~including which describes the following:~~

- i. ~~A D~~description of the incident, including the actions taken during and immediately following the fire by facility personnel;
- ii. A determination of the cause or causes of the fire;
- iii. Administrative and engineering controls which the responsible party proposes to ~~be implemented~~ to reduce the likelihood ~~offer such~~ a fire recurring happening in the future;
- iv. ~~The F~~target date for completing implementation of such the controls ~~described above~~; and
- v. ~~The S~~signature of a corporate officer of the responsible facility.

If both a fire and hazardous materials release has occurred, only one (1) report need be submitted.

b. **Gases at normal temperature and pressure.** Any person in charge of a storage facility or responsible for emergency response for a storage facility, who has knowledge of any unauthorized discharge of a hazardous material which is a nonflammable gas at normal temperature and pressure, must immediately report such discharge to the city fire department via the 9-1-1 emergency number if such discharge presents a threat of imminent danger to public health, safety, and/or the environment. All other gas releases shall be reported immediately to the city fire department via the 9-1-1 emergency number.

**SEC. 24.5.1. Cleanup responsibility.**

Any person, firm or corporation responsible for releasing hazardous or other regulated material shall institute and complete all actions necessary to remedy the direct or potential effects of any unauthorized discharge. ~~€~~The city shall undertake actions to remedy the effects of such unauthorized discharge only if it determines ~~that~~ it is reasonably necessary under the circumstances for the city to do so. The responsible party shall ~~be liable to~~ reimburse the city for all costs incurred by the city in remedying the effects of such unauthorized discharge, including the costs of fighting fires, to the extent allowed by law. This responsibility is not conditioned upon evidence of willfulness or negligence of the party storing or handling the hazardous or other regulated material(s) in causing or allowing such discharge or unsafe condition. Any responsible party who undertakes action to remedy the effects of unauthorized discharge(s) shall not be barred by this chapter from seeking to recover appropriate costs and expenditures from other responsible parties except as provided by Sec. 24.5.2.

**SEC. 24.5.2. Indemnification.**

The responsible party shall indemnify, hold harmless and defend the city against any claim, cause of action, disability, loss, liability, damage, cost or expense, howsoever arising, which occurs by reason of an unauthorized discharge or unsafe condition in connection with the responsible party's operations, except as arises from the city's sole active negligence.

**DIVISION VI. INSPECTIONS AND RECORDS.**

**SEC. 24.6.0. Inspections by the city.**

The ~~c~~City may conduct inspections, at its discretion, for the purpose of ascertaining compliance with this chapter and causing to be corrected any conditions which would constitute any violation of this chapter or of any other statute, code, rule or regulation affecting the storage or handling of hazardous or other regulated materials.

Permittees are not required to disclose the identity of hazardous or other regulated materials protected as trade secrets pursuant to Sec. 24.4.1 ~~and Sec. 24.4.2.c.3~~ to anyone other than city officials, except in the case of an emergency response or an unauthorized discharge related to the storage facility in which the trade secret material is contained.

a. **Right of entry.** Whenever necessary for the purpose of investigating or enforcing the provisions of this chapter, or whenever any enforcement officer has reasonable cause to believe that there exists in any structure or upon any premises, any condition which constitutes a violation of this chapter, said officers may enter such

structure or premises at all reasonable times to inspect the same, or to perform any duty imposed upon any of said respective officers by law; provided that if such structure or premises be occupied, the officer shall first present proper credentials and request entry and, further provided, that if such structure or premises is unoccupied, the officer shall first make a reasonable attempt to contact a responsible person from such firm or corporation and request entry, except in emergency circumstances. If such entry is refused, the officer seeking entry shall have recourse to every remedy provided by law to secure entry.

b. **Inspections by city – Discretionary.** All inspections specified herein shall be at the discretion of the city and nothing in this chapter shall be construed as requiring the city to conduct any such inspection nor shall any actual inspection made imply a duty to conduct any other inspection. Furthermore, nothing in this chapter shall be construed to hold the city or any officer, employee or representative of the city responsible for any damage to persons or property by reason of making an inadequate or negligent inspection or by reason of any failure to make an inspection or reinspection.

**SEC. 24.6.1. Inspections by permittee.**

The permittee shall conduct regular inspections of its own facilities to assure compliance with this chapter and shall maintain logs or file reports in accordance with this chapter. The inspector conducting such inspections shall be qualified to conduct such inspections.

**SEC. 24.6.2. Special inspections.**

In addition to the inspections specified above, [the](#) city may require the periodic employment of special inspectors to conduct an audit or assessment of permittee's facility to make a hazardous or other regulated material safety evaluation and to determine compliance with the provisions of this chapter.

a. The special inspector shall be a qualified person or firm who shall demonstrate expertise to the satisfaction of the city.

b. The special inspection report shall include an evaluation of the facilities and recommendations consistent with the provisions of this chapter where appropriate. A copy of the report shall be filed with [the](#) city at the same time that it is submitted to permittee.

c. Permittee shall, within thirty (30) days of said report, file with [the](#) city a plan to implement all recommendations, or shall demonstrate to the satisfaction of [the](#) city why such recommendations shall not be implemented.

**SEC. 24.6.3. Substituted inspections.**

An inspection by an employee of any other public agency may be deemed by the city as a substitute for any requirement above.

**SEC. 24.6.4. Maintenance of records.**

All records required by this chapter shall be maintained by the permittee for a period of not less than three (3) years. Said records shall be made available to [the](#) city during normal working hours and upon reasonable notice, or copies of these records shall be sent to [the](#) city, if [the](#) city so requests.

**DIVISION VII. APPLICATIONS AND PERMITS.**

**SEC. 24.7.0. Permit.**

a. It shall be unlawful for any person, firm or corporation to store, [use](#) or handle any hazardous or other regulated materials in excess of the exempt amounts specified in Sec. 24.2.1 without first obtaining a permit for the storage and handling of the hazardous or other regulated materials. Furthermore, it shall be unlawful for any person, firm or corporation to store or handle hazardous or other regulated materials in quantities in excess of the quantities specified in the permit, or to violate any other requirement set forth in this chapter or in the permit.

b. The permit for hazardous or other regulated material storage, [use](#) and handling may include the following: (1) name and address of the permitted facility; (2) mailing address; (3) issue, revision and expiration dates of the permit; (4) type of permit (full-term, temporary or provisional); (5) maximum quantities and hazard classes of hazardous or other regulated materials allowed on site at any one time; and (6) compliance directives specifying maintenance and/or upgrade requirements and dates for complying with these requirements. The permit may impose any additional terms or conditions upon the applicant which the fire chief or his/her designee deems reasonable and necessary to carry out the purposes of this chapter.

c. A full-term permit may be issued to the applicant if:

1. The applicant has complied with all reporting requirements of this chapter;

2. The applicant has furnished all requested information, including a complete permit application as described in this chapter;

3. The fire chief or his/her designee determines ~~that~~ there are adequate devices, equipment, chemicals, administrative controls, engineering controls and other facilities to safely store and handle the hazardous or other regulated materials; ~~and~~

4. The person(s) responsible for emergency spill response and control are adequately trained and capable of consistently meeting permit requirements; ~~and~~

5. The applicant has paid all hazardous materials program fees.

d. Permits shall be valid for a term of no more than one year (365 days).

e. If the officer to whom the application has been made finds ~~that~~ the proposal does not completely conform to the provisions of this chapter or meet the conditions of Sec. 24.7.0.c. above, the officer may approve a provisional permit, subject to conditions to be imposed by the officer. The applicant must be informed in writing of the reasons why a full-term permit was not issued.

fe. A permit for temporary storage may be issued where storage does not exceed thirty (30) days and occurs no more frequently than every six (6) months. The storage, use, handling and dispensing standards of Division III, the HMMPHMBP reporting requirements of Division IV and the inspection and records requirements of Division VI may be modified as appropriate under these circumstances for the storage of hazardous or other regulated materials on a nonregular basis.

gf. If the officer to whom the permit application has been made has cause to deny the issuance of a full-term permit and determines ~~that~~ it would not be feasible or in the public interest to approve a temporary or provisional permit, the officer shall deny issuance of a permit. A permit shall be denied if the applicant fails to demonstrate adequate conformity to the provisions of this chapter, or if issuance of a permit would threaten the health, safety or welfare of the community, persons, resources or property. The decision to deny the permit shall be given to the applicant in writing setting forth the findings upon which the decision is based.

hg. No permit shall become effective until the permit has been signed by the fire chief or his/her designee.

ih. A change of ownership (including a transfer of the majority of shares in a corporate facility) of the hazardous materials storage facility requires the submittal of an amended permit application. The permit may be transferred to new owners of the same business only if the new owners accept responsibility for all obligations under this chapter and all permit conditions at the time of the transfer of the business and document such transfer in writing within thirty (30) days of transfer of ownership of the business. Such transfer shall be subject to the approval of the city.

ji. Any permittee desiring to store, handle or dispense hazardous or other regulated materials which are not in conformance with ~~thei~~ hazardous materials permit shall apply for and obtain an amended permit prior to any such storage, handling or dispensing.

kj. The continued use of, and permit approval for, existing storage facilities is subject to review and modification or termination by the city whenever: (1) there has been any unauthorized discharge or significant reduction in the integrity of primary or secondary containment; (2) the permit is renewed; (3) significant changes in hazardous materials processes occur; (4) there is a change of one hundred (100) percent or more in the quantity or any change in the quantity range of a previously disclosed hazardous or other regulated material, or the handling of a previously undisclosed hazardous or other regulated material; or (5) the city is required to implement programs or policies required by state or federal agencies.

lk. The fire chief or his/her designee shall reinstate any suspended hazardous materials permit upon proof of the following:

1. Satisfactory ability to comply with all storage and handling requirements; and

2. The payment of costs, fines, or penalties which may be assessed. The fire chief or his/her designee may require the permit holder to develop and implement a compliance schedule for any proposed modification of permit terms and conditions.

ml. A permit may be issued for a term of up to five (5) years, excepting provisional permits which may be issued for any period of time up to six (6) months and temporary permits which may be issued for no longer than thirty (30) days.

nm. Notwithstanding Sec. 24.2.1 and in addition to those materials regulated pursuant to Sec. 24.2.0, a permit shall be required for the storage in an underground storage tank as defined by California Health and Safety Code Sec. 25281(~~xy~~) of any material defined as a hazardous substance by California Health and Safety Code Sec. 2528125316(f).

#### **SEC. 24.7.1. Application for permit.**

a. Applicants for a permit to store, use, handle or dispense hazardous or other regulated materials shall ~~complete and electronically file~~ submit an application form ~~submit an application form~~ HMBP approved and obtain approval by the city for each facility storing, using e handling or dispensing the hazardous or other regulated materials in excess of the exempt amounts specified in Sec. 24.2.1

b. The ~~HMBP hazardous materials management business plan~~ shall serve as the basis of the hazardous materials permit application. Construction plans, specifications, calculations and other additional information may also be required as part of the application in order for the fire chief or his/her designee to determine ~~that~~ the storage and handling of the hazardous or other regulated materials will be conducted in a manner which meets the purposes of this chapter.

c. Every application for the renewal of a permit or extension of a provisional permit shall be made at least thirty (30) days prior to the expiration date of such permit. If a timely application for renewal has been submitted, the permit shall remain in effect until the city has made its determination.

d. The officer to whom an application for a new or renewed permit is made may make such investigation of the applicant and the proposed facility or activity as such officer deems necessary to carry out the purposes of this chapter.

#### **SEC. 24.7.2. Closure approvals.**

a. Persons, firms or corporations storing, using, handling or dispensing hazardous or other regulated materials in amounts exceeding the exempt amounts specified in Sec. 24.2.1 shall apply for approval to close such storage facility not less than thirty (30) days prior to the termination of the storage of hazardous or other regulated materials at the storage facility. This thirty (30) day period may be reduced or waived by the city if there are special circumstances justifying such waiver. The property owner of the property upon which the storage facility exists shall be responsible for the closure in the event of the facility being abandoned or when the facility operator has not complied with Sec. 24.7.0 and 24.3.1 of this chapter. Such closure plan shall be acceptable to the city. The closure plan shall adequately describe procedures for terminating the storage of hazardous or other regulated materials in each storage facility in a manner that:

1. Minimizes the need for further maintenance; ~~and~~
2. Verifies that any threat to public health or safety or to the environment from residual hazardous or other regulated materials in or from the storage facility is adequately minimized or eliminated. ~~The B~~ basis for ~~of~~ this verification may include, but is not limited to, visual inspections, records review, the analytical results of soil or groundwater samples, wipe samples, etc.; ~~and~~
3. Demonstrates that hazardous or other regulated materials that ~~are~~ were stored in the storage facility will be removed, disposed of, neutralized, or reused in an

appropriate manner, and in compliance with all applicable laws, ordinances, regulations and guidelines.

b. Upon completion of the closure plan, proof of proper removal and transport of all hazardous materials, tanks, sumps, reservoirs, containers and equipment which stored, handled or dispensed hazardous or other regulated materials shall be submitted. This may include, but is not limited to, hazardous waste manifests and bills of lading.

c. Upon completion of the closure plan, the fire chief or his/her designee may require the facility operator or property owner of facilities which stored, handled or dispensed poisonous or acutely hazardous materials to include one (1) of the following statements in the closure documentation, signed by an independent industrial hygienist:

1. "This facility has been adequately closed using currently acceptable practices and is in compliance with local, state, and federal guidelines. In my professional opinion, remaining contamination (if any) poses an insignificant health risk based on the quantity, toxicity and location of the contamination, as well as the proposed use and potential activities of persons on the site"; or

2. "In my professional opinion, contamination has been found which may pose a significant health risk, based on the quantity, toxicity and location of the contamination, as well as the proposed use of the site and potential activities of persons on the site. Further remedial action is warranted to reduce this risk to acceptable levels and to comply with local, state, and federal guidelines, regulations and laws."

### **SEC. 24.7.3. Fees.**

| The city shall establish fees sufficient to recover its costs in administering this chapter and related state and federal laws and regulations referenced in this chapter, including the cost of providing hazardous materials services and implementing the hazardous materials ordinance. These fees shall include, but not be limited to, the cost of review of HMMPHMBPs, inspections, plan checks, facility closures and other program implementation and administrative costs. The fee schedule shall be adopted by resolution of the city council. No application shall be accepted unless and until the fees have been paid.

| The city may collect fees charged by the County of Santa Clara or the State of California for program implementation and administration pursuant to Certified Unified Program Agency legislation (Title 27, Division 1, Subdivision 4, Chapter 1 of the California Code of Regulations).

**ARTICLE DIVISION VIII. REMEDIAL ACTION.**

**SEC. 24.8.0. Notice of violation.**

Unless the fire chief or his/her designee finds that an immediate suspension under Sec. 24.98.2 is necessary to protect the environment, public health, safety, or welfare from imminent danger, the officer shall issue a notice of violation for:

Failure to comply with the provisions of this chapter, any permit conditions, any compliance directives or any provisions of the ~~HMBPhazardous materials management business plan~~ within the time specified in the inspection notice, permit or compliance directive; ~~or~~ fraud, willful misrepresentation, or any willful inaccurate or false statement in applying for a new, amended or renewed permit; or fraud, willful misrepresentation, or any willful inaccurate or false statement in any report required by this chapter.

The notice of violation shall specify: (a) dates when initial and follow-up inspections were conducted; (b) provisions of this chapter, permit conditions, compliance directives, or provisions of the ~~HMBPhazardous materials business management plan~~ found to be in violation; (c) inaccurate or false statements made in permit applications or reports; (d) any applicable fines or other charges due for payment; and (e) deadline dates for compliance and payment of fines or other charges. Such notice shall be sent by certified mail to permittee. If the violation is not abated, corrected, or rectified and all fines or other charges paid within the time specified, a notice of hearing shall be given.

**~~SEC. 24.8.1. Notice of hearing.~~**

~~A notice of hearing shall be given to the permittee, applicant or responsible party by the fire chief or his/her designee in writing, setting forth the time and place of the hearing, the ground or grounds upon which the hearing is based, the pertinent code section or sections, and a brief statement of the factual matters in support thereof. The notice shall be given at least fifteen (15) calendar days prior to the hearing date.~~

**SEC. 24.8.21. Suspension prior to hearing.**

Whenever the fire chief or his/her designee finds that suspension of a permit prior to a hearing for remedial action is necessary to protect the environment, public health or safety from imminent danger, the fire chief or his/her designee may immediately suspend any permit or take any immediate action necessary to curtail the imminent danger pending the hearing for remedial action. The fire chief or his/her designee shall immediately notify the permittee of such suspension by having a written notice of the suspension personally served on the permittee, the permittee's designated agent for

service of process, or a competent person apparently in charge of such a business, who is at least eighteen (18) years of age. In the event ~~that~~ the permittee is not personally served with the suspension notice, a copy of such notice shall be mailed to the business address listed on the [HMMPHMBP](#). Permittee shall have the opportunity for a preliminary hearing with regard to such prehearing suspension within three (3) working days of receiving written notice of such suspension.

**SEC. 24.8.2. Notice of hearing.**

A notice of hearing shall be given to the permittee, applicant or responsible party by the fire chief or his/her designee in writing, setting forth the time and place of the hearing, the ground or grounds upon which the hearing is based, the pertinent code section or sections, and a brief statement of the factual matters in support thereof. The notice shall be given at least fifteen (15) calendar days prior to the hearing date.

**SEC. 24.8.3. Remedial action.**

If the fire chief or his/her designee, after the hearing, finds ~~that~~ cause exists for remedial action, the fire chief or his/her designee shall impose one or more of the following:

- a. A warning;
- b. An order to correct the particular violation and pay fines or other charges specified in the notice issued pursuant to Sec. 24.9.0;
- c. A revocation of the permit for the facility or for a storage facility and approval of a provisional permit;
- d. Suspension of the permit for the facility or for a storage facility for a specified period not to exceed six (6) months;
- e. Modification or addition of conditions of the permit;
- f. Revocation of the permit with no reapplication permitted for a specified period not to exceed five (5) years; ~~and/or~~
- g. Such other criminal or civil actions as permitted by law.

Upon suspension or revocation of a hazardous materials permit, hazardous or other regulated materials ~~shall will be required to~~ be removed from the affected facility within thirty (30) days. Procedures for such removal shall require prior city approval.

**SEC. 24.8.4. Transmittal of decision.**

Within ten (10) days of the hearing, the fire chief or his/her designee shall render a written opinion, stating the findings upon which the decision is based and the action taken, if any. The decision of the fire chief or his/her designee may be appealed to the city council as specified in Sec. 24.9.2.

**SEC. 24.8.5. Authority after suspension, revocation or expiration.**

The suspension, revocation or expiration of a permit issued under this chapter shall not prevent any proceedings to investigate such permit, any remedial action against such permittee or any proceeding against such permittee.

**SEC. 24.8.6. Return of permit.**

In the event ~~that~~ a permit issued under the provisions of this chapter is suspended or revoked, the permittee shall forward it to the issuing officer not later than the end of the third business day after notification of such suspension or revocation.

**ARTICLE-DIVISION IX. HEARING AND APPEAL PROCEDURE.**

**SEC. 24.9.0. Hearing rules.**

In any hearing under this chapter, all parties involved shall have the right to offer testimonial, documentary, and tangible evidence bearing on the issues, to be represented by counsel, and to question any witnesses. Any hearing under this chapter may be continued by the person conducting the hearing for a reasonable time for the convenience of a party or a witness.

**SEC. 24.9.1. Hearing notices.**

All notices required by this ~~article-chapter~~ shall be sent by certified mail, postage prepaid, to the applicant or permittee at the address given for purposes of notice on the application or permit or delivered to the permittee personally.

**SEC. 24.9.2. Appeal rules.**

Within fifteen (15) calendar days from the date of deposit of the decision of the fire chief or his/her designee in the mail, an applicant or permittee may appeal the decision, in writing, to the city council. The city council shall hear the appeal within sixty (60) days of the request for an appeal hearing, or as soon thereafter as possible.

**ARTICLE DIVISION X. ENFORCEMENT.**

**SEC. 24.10.0.     **Infractions and misdemeanors.****

Any person, firm, or corporation, whether as an individual, officer, principal agent, employee or otherwise, violating or causing the violation of any of the provisions of: this chapter, a notice of violation, a compliance directive or a hazardous materials permit may be prosecuted for an infraction or misdemeanor, in addition to any civil penalties as set forth in Sec. 24.10.2.

Each day any violation of this chapter continues shall be regarded as a new and separate offense. The remedies provided in this chapter shall be cumulative and exclusive.

**SEC. 24.10.1.     **Authorization for fire marshal, hazardous materials specialists and certain other designated employees to arrest violators.****

Those employees of the city, including, but not limited to, the fire marshal, hazardous materials specialists and certain other employees designated by the city manager or the fire chief, who have the duty of enforcing the Mountain View City Code and state laws pertaining to hazardous and toxic materials, are hereby authorized, in accordance with and pursuant to California Penal Code Sec. 836.5, 836.37 and 853.6, to arrest persons for violations of such ordinances or statutes and issue notice to appear citations as provided by law.

**SEC. 24.10.2.     **Civil penalties.****

Any person, firm, or corporation who intentionally or negligently violates any provision of this chapter, or fails to comply with any order issued thereunder, shall be liable for a civil penalty not to exceed five hundred dollars (\$500) per day for each violation which shall be assessed and recovered in a civil action brought in the name of the people by the city attorney or the district attorney. An unauthorized discharge which is recordable and recorded in compliance with Sec. 24.5.0 shall not be a violation of this chapter for purposes of this section. In determining the penalty, the court ~~shall~~ may consider all relevant circumstances, including, but not limited to, the following:

- a. The extent of harm or potential harm caused by the violation;
- b. The nature and persistence of the violation;
- c. The length of time over which the violation occurred;
- d. The frequency of past violations;

- e. The permittee's record of maintenance;
- f. Corrective action, if any, taken by the permittee;
- g. The degree of noncompliance with this chapter; and
- h. The extent of negligence or willful misconduct of the person, firm, or corporation violating this chapter.

In any civil action brought pursuant hereto, in which the city prevails, the court ~~shall~~may determine and impose reasonable expenses, including attorney's fees, incurred by the city in the investigation and prosecution of the action.

**SEC. 24.10.3. Civil action for retaliation.**

A civil action may be instituted against any employer by any employee who has been discharged, demoted, suspended, disciplined, or in any other manner discriminated against in terms or conditions of employment, or threatened with any such retaliation, because such employee has, in good faith, made any oral or written report or complaint related to the enforcement of this chapter to any company official, public official or union official, or has testified in any proceeding in any way related thereto. In addition to any actual damages which may be awarded, damages shall include costs and attorney's fees. The court may award punitive damages in a proper case.

**SEC. 24.10.4. Remedies not exclusive.**

Remedies under this section are in addition to and do not supersede or limit any and all other remedies, civil or criminal.

**DIVISION XI. MISCELLANEOUS.**

**SEC. 24.11.0. Disclaimer of liability.**

The degree of protection required by this chapter is considered reasonable for regulatory purposes. The standards set forth herein are minimal standards and this chapter does not imply that compliance will ensure ~~that~~ there will be no unauthorized discharge of hazardous or other regulated material. This chapter shall not create liability on the part of the city, any officer or employee thereof for any damages that result from reliance on this chapter or any administrative decision lawfully made thereunder. All persons handling, storing, using, processing, and disposing of hazardous or other regulated materials within the city should be and are advised to

determine, to their own satisfaction, the level of protection, in addition to that required by this chapter, necessary or desirable to ensure ~~that~~ there is no unauthorized discharge of hazardous or other regulated materials.

**SEC. 24.11.1. Guidelines.**

Guidelines implementing this chapter and adopted by the city council shall be maintained in the office of the environmental safety division of the fire department. Such guidelines, in the areas addressed therein, shall serve as an interpretation of this chapter.

~~**SEC. 24.11.2. Duties are discretionary.**~~

~~—Subject to the limitations of due process, notwithstanding any other provision of this code whenever the words “shall” or “must” are used in establishing a responsibility or duty of the city, its elected or appointed officers, employees, or agents, it is the legislative intent that such words establish a discretionary responsibility or duty requiring the exercise of judgment and discretion.~~

**SEC. 24.11.32. Conflict with other laws.**

Notwithstanding any other provision of this chapter:

a. A storage facility regulated by any state or federal agency will be exempted from any conflicting provision of this chapter.

b. Whenever any provision of this chapter conflicts with the fire code as adopted by the city, the stricter shall prevail.

**SEC. 24.11.43. Severability.**

If any section, subsection, sentence, clause, or phrase of this chapter is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the chapter. The city council hereby declares that it would have passed this chapter and each and every section, subsection, sentence, clause, or phrase not declared invalid or unconstitutional without regard to whether any portion of the chapter would be subsequently declared invalid or unconstitutional.”

Section 2. Article II of Chapter 24 of the Mountain View City Code is hereby amended to read as follows:

**ARTICLE II. TOXIC GASES.**

**DIVISION I. PURPOSE AND DEFINITION.**

**SEC. 24.100. Scope.**

a. This article applies to all new and existing facilities where regulated materials subject to this article are present.

b. In the event of conflicting or overlapping regulatory provisions within Chapter 14, "Fire Prevention," of the Mountain View City Code and/or Chapter 8, "Buildings," of the Mountain View City Code, and this article, the most stringent requirement shall be applied.

c. In the event of conflicting or overlapping regulatory provisions with a federal law or state law or regulation, unless the application of this article is expressly preempted by an act of Congress or enactment of the Legislature, the more stringent requirement shall apply.

d. This article shall not apply to the registration and application of pesticides since this is preempted by an Act of Congress. Handling and storage of pesticide cylinders, however, shall comply with all requirements of this article.

**SEC. 24.101. Definitions generally.**

Unless the context otherwise requires, the words and phrases in this article shall have the meanings set forth in this Division I and shall govern the construction of this article. For words and phrases not defined in this article, the definitions set forth in Chapters 8, 14 and 24 of the Mountain View City Code shall apply.

**SEC. 24.101.1. Highly toxic materials.**

A material that has a median lethal concentration (LC<sub>50</sub>) in air of two hundred (200) parts per million or less by volume of gas or vapor, or two (2) milligrams per liter or less of mist, fume or dust, when administered by continuous inhalation for an hour, or less if death occurs within one (1) hour, to albino rats weighing between two hundred (200) and three hundred (300) grams each.

**SEC. 24.101.2. Toxic materials.**

A material that has a median lethal concentration (LC<sub>50</sub>) in air of more than two hundred (200) parts per million but not more than ~~two~~three thousand (~~2,000~~3,000) parts per million by volume of gas or vapor, or more than two (2) milligrams per liter but not more than thirty (30) milligrams per liter of mist, fume or dust, when administered by continuous inhalation for an hour, or less if death occurs within one (1) hour, to albino rats weighing between two hundred (200) and three hundred (300) grams each.

**SEC. 24.101.3. Moderately toxic materials.**

A material that has a median lethal concentration (LC<sub>50</sub>) in air of more than ~~three~~two thousand (~~3,000~~2,000) parts per million but not more than five thousand (5,000) parts per million by volume of gas or vapor, or more than thirty (30) milligrams per liter but not more than fifty (50) milligrams per liter of mist, fume or dust, when administered by continuous inhalation for an hour, or less if death occurs within one (1) hour, to albino rats weighing between two hundred (200) and three hundred (300) grams each.

**SEC. 24.102. Controls.**

“Controls” are means to regulate materials to prevent unauthorized discharges.

**SEC. 24.103. Control area.**

Spaces within a building where quantities of hazardous materials not exceeding the maximum allowable quantities per control area are stored, dispensed, used or handled. Control areas shall comply with the California Fire Code.

**SEC. 24.104. Deleted by Ord. No. 6.99, 4/27/99.**

**SEC. 24.105. Excess flow control.**

“Excess flow control” means a fail-safe system designed to shut off flow due to a rupture in pressurized piping systems.

**SEC. 24.105.1. Exterior storage.**

“Exterior storage” means a storage area enclosed by no more than two (2) contiguous walls.

**SEC. 24.106. Facility.**

“Facility” means any building, structure, installation, equipment, pipe, container, site, area, appurtenant structure or surrounding land area where regulated materials are stored, used, dispensed, handled, placed or otherwise have come to be located.

**SEC. 24.107. Fire code.**

“Fire code” means Chapter 14, “Fire Prevention,” of the Mountain View City Code.

**SEC. 24.108. Deleted by Ord. No. 6.99, 4/27/99.**

**SEC. 24.109. IDLH (immediately dangerous to life and health).**

“IDLH (immediately dangerous to life and health)” means a concentration of airborne contaminants, normally expressed in parts per million (ppm) or milligrams per cubic meter, which represents the maximum level from which one could escape within thirty (30) minutes without any escape-impairing systems or irreversible health effects. This level is established by the National Institute of Occupational Safety and Health (NIOSH). If adequate data do not exist for precise establishment of IDLH data, an independent certified industrial hygienist, industrial toxicologist or appropriate regulatory agency shall make such determination.

**SEC. 24.110. Inert construction materials.**

“Inert construction materials” means materials which, under reasonably foreseeable conditions, will not degrade or react upon contact with the regulated material to be contained.

**SEC. 24.111. Deleted by Ord. No. 6.99, 4/27/99.**

**SEC. 24.112. Lethal concentration (LC<sub>50</sub>).**

“Lethal concentration” (LC<sub>50</sub>) means the median lethal concentration level, at which fifty (50) percent of appropriate test animals die when exposed by inhalation for a scientifically appropriate specified time period. For the purposes of this chapter, LC<sub>50</sub> values for a particular regulated material shall be those established by the Department of Transportation (D.O.T.). If D.O.T. has not established an LC<sub>50</sub> value for a particular regulated material, the LC<sub>50</sub> value established by the Compressed Gas Association (CGA) shall be used. If neither D.O.T. nor CGA has established an LC<sub>50</sub> value for a particular regulated material, the fire chief or his/her designee may use LC<sub>50</sub> values from other available scientific sources.

**SEC. 24.113. Lethal concentration low (LCLo).**

“Lethal concentration low” (LCLo) means the lowest concentration of a chemical at which some test animals died following inhalation exposure.

**SEC. 24.114. Lethal dose median (LD<sub>50</sub>).**

“Lethal dose median” (LD<sub>50</sub>) means the dose at which fifty (50) percent of test animals die following exposure. The lethal dose is given in milligrams per kilogram of body weight of the test animals.

**SEC. 24.115. Lethal dose low (LDLo).**

“Lethal dose low” (LDLo) means the lowest dose of a chemical at which some test animals died following exposure.

**SEC. 24.116. Deleted by Ord. No. 6.99, 4/27/99.**

**SEC. 24.117. Maximum threshold quantity (Max. T.Q.).**

“Maximum threshold quantity” (Max. T.Q.) means the maximum quantity of a toxic or moderately toxic regulated material which may be stored in a single vessel before a stricter category of regulation is required by this article. Max. T.Q. is determined by the following equation:

$$\text{Max. T.Q. (pounds)} = \text{LC}_{50} \text{ (ppm)} \times 2$$

For the purpose of calculating the Max. T.Q., storage tank, cylinder and piping systems which can be isolated in a manner approved by the fire chief or his/her designee may be designated as a separate storage vessel.

**SEC. 24.118. Minimum threshold quantity (Min. T.Q.).**

“Minimum threshold quantity” (Min. T.Q.) means the aggregate quantity of a single regulated material in a control area which, due to the minimal aggregate quantities present, need only comply with specific control requirements established in Division VIII and Division II of this article and not with the specific requirements for highly toxic, toxic or moderately toxic regulated materials. Min. T.Q. for mixtures shall be based on the aggregate weight of the regulated components.

For all regulated materials: Min. T.Q. = 2 pounds or less.

Minimum threshold quantity controls are set forth in Division VIII of this article.

**SEC. 24.119. Permissible exposure limit (PEL).**

“Permissible exposure limit” (PEL) means the maximum permitted eight (8) hour time-weighted average concentration of an airborne contaminant. The maximum permitted time-weighted average exposures are set forth in 29 CFR 1910.1000, as it may be amended from time to time.

**SEC. 24.120. Person.**

“Person” means an individual, trust, firm, joint stock company, corporation, partnership, association or other business activity, city, county, district, the state, any department or agency thereof, or the United States, to the extent authorized by law.

**SEC. 24.121. Portable tank.**

“Portable tank” means any packaging over sixty (60) U.S. gallons capacity and designed primarily to be loaded into or on or temporarily attached to a transport vehicle or ship, and equipped with skids, mounting or accessories to facilitate handling of the tank by mechanical means. It does not include any cylinder having more than one thousand (1,000) pounds water capacity, cargo tank, tank car tank or trailers carrying cylinders of over one thousand (1,000) pounds water capacity.

**SEC. 24.122. Reduced flow valve.**

“Reduced flow valve” means a valve equipped with a restricted flow orifice and inserted into a compressed gas cylinder, portable tank or stationary tank that is designed to reduce the maximum flow from the valve under full-flow conditions. The maximum flow rate from the valve is determined with the valve allowed to flow to atmosphere with no other piping or fittings attached.

**SEC. 24.123. Regulated materials.**

“Regulated materials” are all materials, regardless of form (i.e., liquid, solid or gas) which meet the criteria established by Sec. 24.205, below.

**SEC. 24.124. Responsible persons.**

“Responsible persons” means permittees under this article, owners, managers and persons responsible for the day-to-day operation of any facility subject to this article.

**SEC. 24.125. Stationary tank.**

“Stationary tank” means any packaging designed primarily for stationary installations not intended for loading, unloading, transport or attachment to a transport vehicle as part of its normal operation in the process of use. It does not include cylinders having less than one thousand (1,000) pounds water capacity.

**SEC. 24.126. Deleted by Ord. No. 6.99, 4/27/99.**

**SEC. 24.127. Unauthorized discharge.**

“Unauthorized discharge” means releasing, spilling, leaking, pumping, pouring, emitting, emptying, injecting, escaping, leaching, dumping or disposing of a regulated material into the environment, including any sewer, storm drain, ditch, drainage canal, lake, river or tidal waterway, surface water, groundwater, land surface, sidewalk, street or highway, subsurface strata or ambient air except:

- a. A “federally permitted release” as that term is defined in Sec. 101 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 USC Sec. 9602(10), or pursuant to a permit of the Bay Area Air Quality Management District, or waste discharge requirements of the San Francisco Bay Regional Water Quality Control Board or local wastewater pretreatment requirements for publicly owned treatment works; or
- b. The normal application of materials used in weed abatement, erosion control, soil amendment or similar application when used in accordance with manufacturer’s instructions or nationally recognized standards.

**DIVISION II. SPECIAL PROVISIONS.**

**SEC. 24.200. General provisions.**

This article governs the storage, dispensing, use and handling of regulated materials. To the extent ~~that~~ the application of this article to the registration and use of pesticides is preempted by an express provision of an act of Congress or a statute adopted by the State Legislature, this article does not apply.

The provisions of Division II apply to all regulated materials, including highly toxic, toxic, moderately toxic and minimum threshold quantities of regulated materials.

**SEC. 24.205. Regulated materials.**

a. "Regulated materials," including, but not limited to, gases, are those materials which meet the following criteria:

1. The materials fall under the definition of highly toxic, toxic or moderately toxic materials.

2. The materials meet either of the following criteria:

(a) They are shipped in compressed gas cylinders and the material is or becomes or acts as a gas upon release at normal temperature and pressure (sixty-eight (68) degrees Fahrenheit and seven hundred sixty (760) mm Hg).

(b) The material is used or handled as a gas whether or not the material meets the definition of a compressed gas in Chapter 14, "Fire Prevention," of the Mountain View City Code or 49 CFR Sec. 173.30011(a).

b. Materials which meet the foregoing criteria are subject to the provisions of this article unless exempted by the fire chief or his/her designee based upon scientific evidence provided by a toxicologist or other professional acceptable to the city.

**SEC. 24.210. General obligation.**

a. No person shall cause, suffer or permit the storage, handling, use or dispensing of materials regulated by this article:

1. In a manner which is contrary to a provision of this article or any other federal, ~~or~~ state or local statute, code, ordinance, rule, regulation or standard of performance relating to materials subject to this article; or

2. In a manner which causes an unauthorized discharge or which imposes a significant risk of such unauthorized discharge.

b. A person responsible for a facility shall, as soon as he or she has knowledge of an unauthorized discharge from or at such facility, immediately notify the fire chief or designee of such discharge.

**SEC. 24.215. Permits ~~and for~~ system upgrades.**

a. No person shall upgrade, repair, modify, close or remove a facility without first complying with the process and procedures as set forth in Division VIII, "Applications and Permits," of this chapter. No person shall store, dispense, use or

~~handle any regulated material in excess of an exempt amount at a facility unless a compliance plan and a plan review fee have been submitted to the fire chief or his/her designee and a permit for the facility has been issued pursuant to Division X of this article.~~

b. The extent of system upgrades shall be determined by the following conditions:

1. If a building permit is required for a piping modification, then upgrading of the entire system for that gas shall be required.

2. If a building permit is not required for piping modification, such as for connecting an existing piping system to a new piece of equipment, then upgrading of the entire system shall not be required.

**SEC. 24.222220. Closure.**

a. It shall be unlawful for any person to abandon, remove or close a facility or other area regulated by this article until a closure plan has been submitted to and approved by the fire chief or his/her designee.

b. A closure plan and a closure plan review fee as set by the schedule of fees as adopted by the city council shall be submitted by a responsible person to the fire chief or his/her designee at least thirty (30) days prior to facility closure. The property owner of the property upon which the regulated materials are stored shall be responsible for the closure in the event ~~that~~ the regulated materials are abandoned or when the permittee has not complied with all provisions of this section. The closure plan shall demonstrate to the satisfaction of the fire chief or his/her designee that regulated materials which are or have been stored, dispensed, handled or used in-at the facility will be transported, disposed of or reused in a manner consistent with public health and safety. The fire chief or his/her designee may waive all or part of the thirty (30) day period upon a finding of good cause.

**SEC. 24.225. Seismic protection.**

Persons responsible for a facility with one or more stationary tanks and piping systems used for regulated materials shall cause such tanks and piping systems to be seismically braced in accordance with the provisions of Chapter 8, "Buildings," of the Mountain View City Code.

**SEC. 24.230. Security.**

Responsible persons shall cause facilities where materials subject to this article are stored, handled, dispensed or used to be secured against unauthorized entry.

**SEC. 24.235. Breathing apparatus.**

a. In order to provide for immediate initial on scene response in the event of an unauthorized discharge and to provide on-scene assistance to firefighters and other emergency response personnel, persons responsible for any facility where highly toxic or corrosive regulated materials are present shall provide a minimum of two (2) self-contained breathing apparatus. When self-contained breathing apparatus would be inadequate protection due to the nature of the gases present, other appropriate protective equipment shall be provided for on-site emergency response personnel.

b. The self-contained breathing apparatus or other protective equipment shall be suitable for use with the material present and shall be readily available to on-site emergency response personnel in a location that provides safety for those expected to don the apparatus.

c. A "location that provides safety" is one which is not likely to be immediately affected by the release of a regulated material.

**SEC. 24.240. Incompatible materials.**

Responsible persons shall cause regulated materials to be separated from other incompatible hazardous materials in accordance with Article I, Division III of this chapter.

Construction materials shall be compatible with the toxic gases they serve. Compatibility of construction materials shall be based on nationally recognized standards such as the National Association of Corrosion Engineers (NACE).

**SEC. 24.245. Leak testing.**

Responsible persons shall cause containers of regulated materials to be tested for leaks immediately upon delivery and again immediately prior to departure of such containers from facilities. Testing methods shall be approved by the fire chief or his/her designee in accordance with appropriately nationally recognized industry standards and practices, if any. Appropriate remedial action shall be immediately undertaken when leaks are detected.

**SEC. 24.250. Protective plugs and caps.**

Responsible persons shall cause the protective plugs and caps of containers of regulated materials to be in place at all times unless and until the material is properly placed into use.

**SEC. 24.255. Emergency response plan.**

a. If the preparation of an emergency response plan for the facility is not required by any other law, a responsible person shall prepare, or cause to be prepared, and filed with the fire chief or his/her designee, a written emergency response plan.

b. If the preparation of an emergency response plan is required by any other law, a responsible person shall file a copy of the plan with the fire chief or his/her designee.

**SEC. 24.257260. Emergency response team coordinator.**

a. If not required to do so by another law, a person responsible for a facility subject to this article shall designate, or cause to be designated, an on-site emergency response team coordinator, ~~which whom~~ shall be ~~composed of an adequately~~ number of trained, ~~responsible persons~~, and ~~which whom~~ shall serve as liaison to the fire department.

b. ~~The Emergency emergency~~ response ~~team members~~ coordinator shall ascertain all on-site locations where regulated materials are stored, handled and used, ~~and~~ shall become familiar with the emergency response plan and the chemical nature of such regulated material, ~~and~~ shall act as facility liaison to the fire department and shall be prepared to respond in an emergency.

~~**SEC. 24.260. Emergency drills.**~~

~~a. Responsible persons shall cause emergency drills of each on-site emergency response team to be conducted at a minimum of not less frequently than once every three (3) months.~~

~~b. Records of drills conducted shall be maintained at the facility for three (3) years and shall be made available for inspection upon request by the fire chief or his/her designee.~~

**SEC. 24.265. Annual maintenance.**

a. Responsible persons shall cause all safety control systems at a facility to be tested ~~not less frequently than~~ at a minimum of annually and maintained in good working condition.

b. Maintenance and testing shall be performed by persons qualified to perform the maintenance and tests.

c. Maintenance records and test certifications shall be available to the fire chief or his/her designee upon inspection or request.

**SEC. 24.270. Reduced flow valve and devices – Highly toxic materials.**

All containers of materials other than lecture bottles classified as highly toxic regulated materials and having a vapor pressure exceeding twenty-nine (29) psia shall be equipped with a reduced-flow valve when commercially available. If a reduced-flow valve is not available, the container shall be used with a reduced flow device. All reduced-flow devices shall be part of the valve assembly and visible to the eye when possible; otherwise, they shall be installed as close as possible to the cylinder source.

**SEC. 24.275. Fire extinguishing systems.**

a. Except as provided in subsection (c)e of this section, responsible persons shall cause all interior and exterior use areas and all indoor storage areas and storage buildings to be protected from fire by automatic sprinkler systems.

b. The design of the sprinkler system shall be not less than that required under the current edition of NFPA 13 for ordinary hazard Group II with a minimum design area of three thousand (3,000) square feet. Where the materials or storage arrangement require a higher level of sprinkler system protection in accordance with nationally recognized standards, the higher level of sprinkler system protection shall be provided.

c. If the chemical properties of the regulated materials are such that the materials will be incompatible with the use of a sprinkler system, the fire chief or his/her designee may require alternative forms of fire protection.

**DIVISION III. CLASSIFICATION OF MATERIALS.**

**SEC. 24.300. General.**

Regulated materials shall be classified as highly toxic, toxic, moderately toxic or Min. T.Q. materials as defined in Division I.

**SEC. 24.305. Exempt amounts.**

a. Except as provided in subsection (b) of this section, any single regulated material which would otherwise be regulated is exempt from regulation under this article if all of the following are met:

1. The aggregate quantity of any single regulated material in a control area or exterior storage does not exceed the Min. T.Q.

2. The quantity of the material in a single vessel does not exceed the amounts specified as follows:

i. One (1) pound.

ii. A concentration below the permissible exposure limit (PEL).

3. The aggregate quantity of all regulated materials in a control area or exterior storage does not exceed the exempt amounts specified in Chapter 27-50 of the currently adopted edition of the California-International Fire Code.

b. Notwithstanding the exemption in subsection (a) of this section, no amount of highly toxic regulated materials is exempt from the provisions for flow-limiting devices and fire extinguishing systems found-described in Division II of this article.

**SEC. 24.310. Calculations for determining the class of mixtures.**

a. The LC<sub>50</sub> value for mixtures containing regulated materials shall be calculated using the following formula:

$$\text{LC}_{50} \text{ of Gas Mixture (ppm)} = \frac{1}{\frac{(\text{molar fraction of toxic component})}{(\text{ppm LC}_{50} \text{ of toxic component})}}$$

b. If more than one toxic component is present, the LC<sub>50</sub> value shall be calculated using the following formula:

$$\text{LC}_{50} \text{ of Gas Mixture (ppm)} = \frac{1}{\frac{n}{\sum_{i=1}^n [(f_i) / \text{LC}_{50i}]}}$$

where  $f_i$  is the mole fraction of the  $i^{\text{th}}$  toxic component of the gas mixture and  $LC_{50i}$  is the  $LC_{50}$  of the  $i^{\text{th}}$  toxic component of the gas mixture.

SEC. 24.315. Deleted by Ord. No. 6.99, 4/27/99.

SEC. 24.320. Deleted by Ord. No. 6.99, 4/27/99.

SEC. 24.325. Deleted by Ord. No. 6.99, 4/27/99.

SEC. 24.330. Renumbered by Ord. No. 6.99, 4/27/99.

#### DIVISION IV. HAZARD CLASSIFICATION AND CONTROL TABLE.

SEC. 24.400. **General.**

a. The requirements for controls for the use or indoor storage of regulated materials shall be cumulative as the hazard class of regulated material increases in accordance with the following table:

#### HAZARD CLASSIFICATIONS AND CONTROLS

Hazard Classification	Hazard Controls
Highly Toxic	Includes Division II, highly toxic, toxic, moderately toxic minimum threshold quantity and exempt amount controls
Toxic	Includes Division II, toxic, moderately toxic minimum threshold quantity and exempt amount controls
Moderately Toxic	Includes Division II, moderately toxic minimum threshold quantity and exempt amount controls
Minimum Threshold Quantity	Includes Division II minimum threshold quantity and exempt amount controls
Exempt Amounts	Other applicable statutes, codes and ordinances

b. All control equipment for materials regulated by this article shall meet appropriate nationally recognized standards, if any, and shall be approved by the fire chief or his/her designee.

c. Halogenated, noncarbon-based gases may hydrolyze to their base mineral acid upon contact with moisture. Therefore, the monitoring and compatibility requirements of this article shall apply to their decomposition products.

## **DIVISION V. HIGHLY TOXIC CONTROLS.**

### **SEC. 24.500. Highly toxic controls.**

Persons responsible for any facility where highly toxic materials are present shall comply with all of the requirements of Divisions II, and Divisions V, VI, VII and VIII of this article.

### **SEC. 24.505. Piping.**

a. Piping for highly toxic materials shall be designed and fabricated from materials compatible with the material to be contained. Piping shall be of strength and durability sufficient to withstand the pressure, structural and seismic stress and exposure to which it may be subjected, as required by the California Building Code, adopted in Chapter 8 of the Mountain View City Code.

b. Secondary containment shall be provided for piping for highly toxic materials. The secondary containment shall be capable of directing a sudden release into an approved discharge treatment system and shall be monitored continually with a continuous gas monitoring system approved by the fire chief or his/her designee. Secondary containment includes, but is not limited to, double-walled piping. Secondary containment for piping under subatmospheric conditions may not be required if the piping is equipped with an alarm and cylinder fail-safe to close valve activated by a loss of vacuum.

### **SEC. 24.510. Automatic shutoff.**

An automatic shutoff valve which is of "fail-safe to close" design shall be provided. Each of the following shall activate automatic shutoff:

a. Gas detection at PEL in occupiable areas; at 1/2 IDLH (or 0.05 LC<sub>50</sub> if no established IDLH) in unoccupiable areas;

b. Manual activation of emergency shutoff valves, from remote locations;

- c. Failure of emergency power;
- d. ~~Seismic activity;~~
- ed. Failure of primary containment;
- fe. Activation of manual fire alarm; and
- gf. Failure of required exhaust flow ventilation rate.

**SEC. 24.515. Emergency control station.**

Signals from emergency equipment shall be transmitted to an emergency control station which is continually staffed by trained personnel. Continual staffing shall not be required during periods when regulated materials have been purged from all process piping and equipment and are no longer being used or dispensed.

**DIVISION VI. TOXIC CONTROLS.**

**SEC. 24.600. Toxic controls.**

Responsible persons shall cause materials which are classified as toxic materials to be provided with the controls specified in Divisions II, ~~and Divisions~~ VI, VII and VIII of this article.

**SEC. 24.605. Connections.**

a. Piping and tubing for toxic materials shall be installed in accordance with appropriate nationally recognized standards, if any, shall be approved by the fire chief or his/her designee and shall have welded connections compatible with the regulated material throughout unless an exhausted enclosure is provided.

b. Material which is not compatible with ferrous piping may be installed in nonferrous piping approved by the fire chief or his/her designee.

c. Where connections other than welding connections meet appropriate nationally recognized industry standards, if any, a person responsible for a facility may seek an exception from the fire chief or his/her designee. A request for exception and a fee as set by the schedule of fees as adopted by the city council shall be filed with the fire chief or his/her designee for approval. The request shall document the standards and reason for the exception.

**SEC. 24.610. Local gas shutoff.**

a. Manual activation controls for local gas shutoff shall be provided at locations near the point of use and near the source, as approved by the fire chief or his/her designee.

b. The fire chief or his/her designee may require additional controls at other places, including but not limited to the entry to the building, the area in the building where regulated materials are stored or used and emergency control stations.

c. Manually activated shutoff valves shall be of ~~“fail-safe to close”~~ design.

**SEC. 24.615. Emergency power.**

Emergency power shall be provided for:

a. Exhaust ventilation, including the power supply for treatment systems;

b. Gas detection systems;

c. Emergency alarm systems;

d. Temperature control systems which comply with the California Fire Code.

**SEC. 24.620. Excess flow control.**

a. Portable tanks and cylinders containing toxic material shall be provided with excess flow control.

b. Excess flow control shall be permanently marked to indicate the maximum design flow rate.

**SEC. 24.625. Gas detection.**

A continuous gas detection system shall be provided to detect the presence of a gas at or below the permissible exposure limit in occupiable areas and at or below 1/2 IDLH (or 0.05 LC<sub>50</sub> if no established IDLH) in unoccupiable areas. The detection system shall initiate a local alarm and transmit a signal to a continually staffed remote location (to provide an immediate response to an alarm). The alarm shall be both visual and audible and shall be designed to provide warning both inside and outside of the interior storage, use or handling area. The audible alarm shall be distinct from all other on-site alarms.

**SEC. 24.630. Exhaust ventilation monitoring.**

A continuous monitoring system shall be provided to assure that the required exhaust ventilation rate is maintained. The monitoring system shall initiate a local alarm. The alarm shall be both visual and audible and shall be designed to provide warning both inside and outside of the interior storage, use or handling area.

**SEC. 24.635. Seismic shutoff valves.**

A seismically activated shutoff valve which is of "fail-safe to close" design meeting standards approved by the fire chief or his/her designee shall be provided for automatic shutoff of regulated materials. ~~for an automatic shutoff of regulated materials.~~

**SEC. 24.640. Toxic corrosives.**

Inert construction materials shall be used for the primary containment of toxic regulated materials which are corrosive. Alternatively, secondary containment shall be provided for toxic materials which are corrosive.

**SEC. 24.645. Emergency alarms.**

When materials regulated by this article are transported through exit corridors or exit enclosures, there shall be an emergency telephone system, ~~or~~ a local manual alarm station or a signaling device approved by the fire chief or his/her designee at not more than one hundred fifty (150) foot intervals and at each exit doorway throughout the transport route. The signals shall be relayed to an approved central, proprietary or remote station service or a constantly attended on-site location and shall also initiate a local audible alarm.

**DIVISION VII. MODERATELY TOXIC CONTROLS.**

**SEC 24.700. Moderately toxic controls.**

Persons responsible for a facility shall cause materials which are classified as moderately toxic materials to be provided with the controls specified in Divisions II, and Divisions VII and VIII of this article.

**SEC. 24.705. Piping, valves and fittings.**

a. Piping, valves, fittings and related components shall be designed and fabricated from materials compatible with the material to be contained. They shall have

strength and durability sufficient to withstand the pressure, structural, seismic and any other stress and exposure to which they may be subjected.

b. Expansion chambers shall be provided between valves whenever appropriate in accordance with nationally recognized standards, and shall be approved by the fire chief or his/her designee. Chambers shall be sized to provide protection for piping, valves and instrumentation and to accommodate the expansion of regulated materials.

**SEC. 24.710. Signage.**

a. Stationary aboveground tanks shall be placarded with hazard identification signs as specified in NFPA 704 for the specific material contained.

b. Signs prohibiting smoking shall be posted in indoor storage, use and handling areas and within twenty-five (25) feet of outdoor storage, use and handling areas, except within buildings designated as "No Smoking" buildings.

c. Signs shall not be obscured or removed.

d. Signs shall be in English and other languages as may be appropriate, as determined by the fire chief or his/her designee.

e. Signs shall be durable.

f. The size, color and lettering shall be in conformance with nationally recognized standards determined by the fire chief or his/her designee to be applicable to the regulated material.

**SEC. 24.715. Inert gas purge system.**

Gas systems for regulated materials shall be provided with individually dedicated inert gas purge systems (e.g., nitrogen, helium, argon and neon). A dedicated inert gas purge system may be used to purge more than one gas, provided the gases are compatible. Purge gas systems shall be located in an approved gas cabinet unless the system operates by vacuum demand.

**DIVISION VIII. MINIMUM THRESHOLD QUALITY CONTROLS.**

**SEC. 24.800. Minimum threshold quantity controls.**

Responsible persons shall cause materials which do not exceed the minimum threshold quantity as defined in Sec. 24.118 to be provided with controls specified in Division II and Division VIII of this article.

**SEC. 24.805. Exhaust ventilation.**

a. Storage of cylinders shall be within ventilated gas cabinets, exhausted enclosures or within a ventilated separate gas storage room as defined in the California Fire Code.

b. Storage of portable and stationary tanks shall be within a separate ventilated room without other occupancy or use.

c. If gas cabinets are provided, the room or area in which they are located shall have independent exhaust ventilation when properly exhausted cabinets are not utilized.

d. Exhaust systems for gas cabinets, exhausted enclosures and separate gas storage rooms shall be designed to handle the accidental release of gas. Such exhaust systems shall be capable of diluting, adsorbing, neutralizing, burning or otherwise processing the entire contents of the single tank or cylinder of gas which presents the highest potential hazard.

e. Systems utilized for such processing shall be designed as a treatment system, as described in Sec. 24.815, below. If a total containment system is utilized, the system shall be designed to handle the maximum anticipated pressure of release to the system when the system reaches equilibrium.

**SEC. 24.810. Gas cabinets.**

When gas cabinets are provided, they shall be:

a. Operated at negative pressure in relation to their surrounding area;

b. Provided with self-closing limited access ports or fire-rated windows to give access to equipment controls. The average velocity of ventilation at the face of access ports or windows shall be not less than two hundred (200) feet per minute (FPM) with a minimum of one hundred fifty (150) FPM at any point of the access port or window;

c. Connected to a treatment system;

d. Provided with self-closing doors;

e. Constructed of steel with a thickness of not less than twelve (12) gauge; [and](#)

[f. Internally protected by approved automatic fire sprinklers.](#)

**SEC. 24.815. Treatment systems.**

a. Treatment systems shall be utilized to process all exhaust ventilation to be discharged from gas cabinets, exhausted enclosures or separate storage rooms. Treatment systems shall be designed to reduce the maximum allowable discharge concentration of the gas to one-half ( $\frac{1}{2}$ ) IDLH (or 0.05 LC<sub>50</sub> if no established IDLH) at the point of discharge to the atmosphere as specified below.

b. When more than one gas may be 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 (or 0.1 LC<sub>50</sub> if no established IDLH) for all the gases stored or used.

c. In the event ~~that~~ a revised IDLH is published, the city shall establish a new timetable for existing facilities to upgrade their treatment systems to meet the revised IDLH value.

**SEC. 24.820. Treatment systems sizing.**

Treatment systems shall be sized to process the worst-case release of each gas based on the maximum flow rate of release from the cylinder or tank utilized which presents the highest potential hazard. The entire contents of tanks and cylinders shall be considered.

**SEC. 24.825. Stationary tanks.**

a. Stationary tanks shall be labeled with the maximum rate of release for the gas contained based on any valves or fittings that are inserted directly into the tank.

b. If multiple valves or fittings are provided, the maximum flow rate of release for the valve or fitting with the highest flow rate shall be indicated.

c. If liquefied gases are in contact with any valve or fitting, the liquid flow rate shall be utilized for purposes of computation of the maximum flow rate of release. All flow rates indicated on the label shall be converted to cubic feet per minute of gas at normal temperature and pressure.

**SEC. 24.830. Portable tanks and cylinders.**

a. For portable tanks and cylinders, the maximum flow rate of release shall be calculated based on the actual release data or calculations using actual valve manufacturer's specifications. When this data is not available, the maximum flow rate

of release shall be calculated based on the total release from the cylinder or tank within the time specified in the table below:

Container	Nonliquefied (Minutes)	Liquefied (Minutes)
Cylinders	5	30
Portable Tanks	40	240

b. When portable tanks or cylinders are equipped with approved reduced flow orifices in the cylinder valve, the worst-case release may be determined by the maximum achievable flow through the orifice as determined by the valve manufacturer or the gas supplier. Reduced flow and excess flow valves shall be permanently marked to indicate the maximum design flow rate. Such markings shall indicate the flow rate for air under standard conditions. Lettering shall be one-quarter (1/4) inch high minimum, and be in contrast to the color in which it is printed upon.

c. When cylinders are manifolded together, the maximum release rate shall be the sum of the release rates for all of the manifolded cylinders.

**SEC. 24.835. Piping and controls.**

All primary piping for regulated materials shall pass a helium leak test of  $1 \times 10^{-9}$  cubic centimeters/second where practical, or other nationally recognized standard. Tests shall be conducted by a qualified “third party” not involved with the construction of the piping and control systems.

**DIVISION IX. EXTERIOR STORAGE.**

**SEC. 24.900. General.**

Persons responsible for a facility where there is exterior storage of any regulated material shall comply with the provisions of Divisions II, ~~Division III~~ and ~~Division IX~~ of this article and of the ~~California International~~ Fire Code as amended and adopted in Chapter 14 of the Mountain View City Code.

**SEC. 24.905. Distance limitation to exposures.**

Exterior storage of regulated materials shall not be within seventy-five (75) feet of a building, structure, property line, street, alley, public way or exit to a public way unless the storage is shielded by a structure which has a minimum fire-resistive rating of two (2) hours and which interrupts the line of sight between the storage and the exposure. The shielding structure shall be at least five (5) feet from any exposure.

**SEC. 24.910. Openings in buildings subject to exposure.**

Notwithstanding Sec. 24.905, when an exterior storage area is located within seventy-five (75) feet of a building, openings into the building other than piping shall not be above the height of the top of the shielding structure referred to in Sec. 24.905 ~~or~~ nor within fifty (50) feet horizontally from the exterior storage area, whether or not protected by a shielding structure.

**SEC. 24.915. Air intakes.**

No exterior storage area for regulated materials shall be within seventy-five (75) feet of any air intake.

**SEC. 24.920. Canopies.**

Portable tanks and cylinders stored outside of buildings shall be stored under a canopy constructed of noncombustible materials. Such exterior storage shall not be considered indoor storage. An automatic fire sprinkler system in accordance with Article II, Division II of this chapter, or alternative systems as determined by the fire chief or his/her designee for materials incompatible with water, shall be provided for canopies installed for the storage of regulated materials.

**SEC. 24.925. Stationary tank controls.**

Controls on stationary tanks shall be in accordance with the following:

a. Pressure relief devices shall be vented to a treatment system designed in accordance with the provisions of Sec. 24.815 of this article.

b. Where filling or dispensing connections are provided, they shall be provided with a means of local exhaust. Such exhaust shall be designed to capture fumes and vapors. The exhaust shall be directed to a treatment system designed in accordance with the provisions of Sec. 24.815 of this article.

c. Stationary tanks shall be provided with a means of excess flow control on all tank inlet or outlet connections. Inlet connections that are designed to preclude backflow and pressure relief devices are exempt from this requirement.

**SEC. 24.930. Gas cabinets for leaking cylinders.**

a. At least one gas cabinet or exhausted enclosure shall be provided for the handling of leaking cylinders. The cabinet or enclosure shall be within or adjacent to

the exterior storage area and connected to a treatment system as specified in Sec. 24.815 of this article.

b. A gas cabinet or exhausted enclosure need not be provided for leaking cylinders if all cylinders are stored within gas cabinets or exhausted enclosures and the exhaust is directed to a treatment system designed in accordance with the provisions of Sec. 24.815 of this article.

c. Encapsulating equipment or other equipment designed to contain high-pressure cylinders and their contents as approved by the fire chief or his/her designee shall be acceptable in meeting the intent of this section in lieu of gas cabinets or exhausted enclosures.

**SEC. 24.935. Local exhaust for leaking portable tanks.**

a. A means of local exhaust shall be provided to capture regulated material leaking from portable tanks. The local exhaust may consist of portable ducts or collection systems designed to be applied to the site of a leak in a valve or fitting on the tank. The local exhaust system shall be connected to a treatment system as specified in Sec. 24.815 of this article.

b. A local exhaust system shall be provided within or immediately adjacent to every storage area and within separate gas storage rooms used for portable tanks.

**SEC. 24.940. Tank cars and piping.**

a. The provisions of this article shall not apply to tank cars which meet all requirements of the U.S. Department of Transportation, while such tank cars are used for the transportation and unloading of regulated material, as such terms are used in the Hazardous Materials Transportation Act, 49 U.S.C. Sec. 1801, et seq. ~~“Unloading”~~ does not include the use of tank cars to store regulated materials.

b. The provisions of this article shall apply to piping and control systems, automatic shutoff valves, emergency control stations, gas detection systems, treatment systems and alarm systems used with piping which connects tank cars to facilities for the unloading and delivery of regulated material, and to tank cars used to store regulated materials.

**DIVISION X. PERMIT PROCESS.**

**SEC. 24.960. General.**

Responsible persons shall obtain and keep current a ~~“regulated materials permit.”~~ The process and procedures set forth in Division IV, “Hazardous Materials ~~Management Business~~ Plan,” Division VII, “Applications and Permits,” Division VIII, “Remedial Action,” Division IX, “Hearing and Appeal Procedure,” Division X, “Enforcement,” and Division XI, “Miscellaneous,” of Article I of Chapter 24 of the Mountain View City Code shall govern regulated materials.”

Section 3. The provisions of this ordinance shall be effective thirty (30) days from and after the date of its adoption, but no sooner than January 1, 2014.

Section 4. If any section, subsection, sentence, clause, or phrase of this ordinance is for any reason held to be unconstitutional, such decision shall not affect the validity of the other remaining portions of this ordinance. The City Council hereby declares that it would have passed this 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 unconstitutional.

Section 5. Pursuant to Section 522 of the Mountain View City Charter, it is ordered that copies of the foregoing proposed ordinance be posted at least two (2) days prior to its adoption in three (3) prominent places in the City and that a single publication be made to the official newspaper of the City of a notice setting forth the title of the ordinance, the date of its introduction, and a list of the places where copies of the proposed ordinance are posted.

Section 6. This ordinance is not subject to the California Environmental Quality Act (CEQA) pursuant to Sections 15060(c)(2) of the CEQA Guidelines (Title 14, Chapter 3 of the California Code of Regulations) (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment) and 15060(c)(3) of the CEQA Guidelines (because it has no potential for resulting in physical change to the environment, directly or indirectly).

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JW/2/FIR  
197-10-08-13o-E-1-so

**AMENDMENTS AND REVISIONS TO  
CHAPTERS 8, 14, AND 24 OF THE MOUNTAIN VIEW CITY CODE**

**CHAPTER 8 – BUILDINGS:**

The proposed amendments to Mountain View City Code Chapter 8 include:

- Four (4) structural amendments as recommended by Tri-Chapter Uniform Code Committee:
  - Special inspection exception for concrete footings;
  - CBC, minimum rebar requirement for concrete footings;
  - CRC, minimum rebar requirement for concrete footings; and
  - Exclusion of gypsum board and limits on cement plaster for braced walls.
- Amendments to the Mountain View Green Building Code to align with the 2013 California Green Building Standards Code.
- Delete outdated code amendments.
- Incorporate amendment language referenced in Mountain View City Code Chapter 14 – Fire Prevention.
- Minor editorial changes to clean up existing language.

**CHAPTER 14 – FIRE PREVENTION:**

The proposed amendments to Mountain View City Code Chapter 14 include:

- Inclusion of additional automatic fire sprinkler exception for Group S-2 or U occupancies used for vehicle parking or photovoltaic support structures and which meet specific conditions.
- Incorporate amendment language referenced in Mountain View City Code Chapter 8 – Buildings.
- Minor editorial changes to clean up existing language.

## **CHAPTER 24 – HAZARDOUS MATERIALS:**

The proposed amendments to Mountain View City Code Chapter 24 include:

- Provisions identifying requirements of Assembly Bill 2286 (this bill requires local agencies and businesses to electronically report hazardous materials business plan information).
- Minor editorial changes to clean up existing language.

# ICC TRI-CHAPTER UNIFORM CODE COMMITTEE (TUCC)



**AMENDMENT NUMBER:** Structural 1

**APPROVAL DATE:** August 8, 2013

**SUBJECT:** Proposed amendment to isolated spread concrete footings Special Inspection

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*This amendment is developed by the Tri-chapter Uniform Code Committee and is intended to enhance regional consistency in application and enforcement of the Building Code. Please verify acceptance of this amendment with your local building department prior to its application.*

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## CODE REFERENCE (S):

2013 CBC Section 1705.3 Concrete Construction.

## ISSUE (S):

The proposed amendment modifies the type of exceptions from requiring special inspection for isolated spread concrete footings of buildings three stories or less above grade plane. Revise section 1705.3 Exception as follows.

**1705.3 Concrete construction.** The special inspections and verifications for concrete construction shall be as required by this section and Table 1705.3.

**Exception:** Special inspections 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<sub>c</sub>, no greater than 2,500 pound per square inch (psi) (17.2 Mpa).

## RATIONALE:

Results from studies after the 1994 Northridge earthquake indicated that a lot of the damages were attributed to lack of quality control during construction. The proposed amendment improves quality control during construction and therefore needs to be incorporated into the Code. Revise CBC Section 1705.3 exception No. 1 to allow special inspection not to be required for isolated spread footing where the structural design of the footing is based on a specified compressive strength, f<sub>c</sub>, no greater than 2,500 psi. This proposed amendment is a continuation of an amendment adopted during the previous code adoption cycle.

# ICC TRI-CHAPTER UNIFORM CODE COMMITTEE (TUCC)



**AMENDMENT NUMBER:** Structural 2

**APPROVAL DATE:** August 8, 2013

**SUBJECT:** Proposed amendment to plain concrete

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*This amendment is developed by the Tri-chapter Uniform Code Committee and is intended to enhance regional consistency in application and enforcement of the Building Code. Please verify acceptance of this amendment with your local building department prior to its application.*

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## CODE REFERENCE (S):

2013 CBC Section 1905.1.8, ACI 318 Section 22.10.1.

## ISSUE (S):

Revise section 1905.1.8. ACI 318 section 22.10.1 that allows the use of plain concrete in residential structures assigned to Seismic Design Category C, D, E or F.

**1905.1.8 ACI 318, section 22.10.** Delete ACI 318, Section 22.10, and replace with the following:

22.10 - Plain concrete in structures assigned to Seismic Design Category C, D, E or F.

22.10.1- Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows:

~~(a). Structural plain concrete basement, foundation or other walls below the base are permitted in detached one and two family dwellings three stories or less in height constructed with stud bearing walls. In dwellings assigned to seismic design category D or E, the height of the wall shall not exceed 8 feet (2438 mm), the thickness shall not be less than 7<sup>1</sup>/<sub>2</sub> inches (190 mm), and the wall shall retain no more than 4 feet (1219 mm) of unbalanced fill. Walls shall have reinforcement in accordance with 22.6.6.5.~~

**(a)** 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.

Exception: In detached one- and two-family dwelling three stories or less in height, the projection of the footing beyond the face of the supported member is permitted to exceed the footing thickness.

**(b)** Plain concrete footing supporting walls are permitted, provided the footings have at least two continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than 0.002 times the gross cross-sectional area of the footing. ~~For footings that exceed 8" inches (203 mm) in thickness, 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.

Exception:

1. ~~In seismic design categories A, B and C, In detached one- and two-family dwellings three stories or less in height and constructed with stud bearing walls, are permitted to have plain concrete footings without longitudinal reinforcement.~~ with at least two continuous longitudinal reinforcing bars not smaller than No. 4 are permitted to have a total area of less than 0.002 times the gross cross-sectional area of the footing.
2. ~~For foundation systems consisting of a plain concrete footing and a plain concrete stem wall, a minimum of one bar shall be provided at the top of the stem wall and at the bottom of the footing.~~
3. ~~Where a slab on ground is cast monolithically with the footing, one no. 5 bar is permitted to be located at either the top of the slab or bottom of the footing.~~

## RATIONALE

The proposed amendment addresses the problem of poor performance of plain or under-reinforced concrete footings during a seismic event. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance of plain and under-reinforced concrete footings observed in 1994 Northridge earthquake.

# ICC TRI-CHAPTER UNIFORM CODE COMMITTEE (TUCC)



**AMENDMENT NUMBER:** Structural 3

**APPROVAL DATE:** August 8, 2013

**SUBJECT:** Proposed amendment to CRC to prohibit plain concrete continuous footings without longitudinal reinforcing in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub>

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*This amendment is developed by the Tri-chapter Uniform Code Committee and is intended to enhance regional consistency in application and enforcement of the Building Code. Please verify acceptance of this amendment with your local building department prior to its application.*

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## CODE REFERENCE (S):

2013 CRC Section R403.1.3

## ISSUE (S):

Modify Section R403.1.3 by adding wording to the first sentence of the first paragraph to specify the minimum amount of longitudinal reinforcing, to read:

**R403.1.3 Seismic reinforcing.** 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 minimum reinforcement of at least two continuous longitudinal reinforcing bars, one top and one bottom and not smaller than No. 4 bars. Bottom reinforcement shall be located a minimum of 3 inches (76 mm) clear from the bottom of the footing.

In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> where a construction joint is created between a concrete footing and a stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing, have a standard hook and extend a minimum of 14 inches (357 mm) into the stem wall.

In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> where a grouted masonry stem wall is supported on a concrete footing and stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing and have a standard hook.

In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> masonry stem walls without solid grout and

vertical reinforcing are not permitted.

**Exception:** In detached one- and two-family dwellings which are three stories or less in height and constructed with stud bearing walls, isolated plain concrete footings supporting columns or pedestals are permitted.

**RATIONALE:**

This proposed amendment to the CRC is made to be consistent with TUCC amendment 2 that modifies the plain concrete provisions in CBC Section 1905.1.8 and ACI 318 Section 22.10.1.

This proposed amendment addresses the problem of poor performance of plain or under-reinforced concrete footings during a seismic event. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance of plain and under-reinforced concrete footings observed in 1994 Northridge earthquake.

# ICC TRI-CHAPTER UNIFORM CODE COMMITTEE (TUCC)



**AMENDMENT NUMBER:** Structural 4

**APPROVAL DATE:** August 8, 2013

**SUBJECT:** Proposed amendment to CRC to prohibit the use of gypsum board and limit the use of Portland cement plaster as prescriptive wall bracing materials in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub>

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*This amendment is developed by the Tri-chapter Uniform Code Committee and is intended to enhance regional consistency in application and enforcement of the Building Code. Please verify acceptance of this amendment with your local building department prior to its application.*

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## **CODE REFERENCE (S):**

2013 CRC Section R602.10.4 and Table R602.10.3(3)

## **ISSUE (S):**

Add a new footnote “e” to the end of CRC Table R602.10.3(3), to read:

e. In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub>, Method GB is not permitted and the use of Method PCP is limited to one-story single family dwellings and accessory structures.

Add the “e” footnote notation in the title of Table R602.10.3(3) to read:

TABLE R602.10.3(3)<sup>e</sup>

Add a new subsection R602.10.4.4, to read:

**R602.10.4.4 Limits on methods GB and PCP.** In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub>, Method GB is not permitted for use as 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 D<sub>0</sub>, D<sub>1</sub>, and D<sub>2</sub>, the use of Method PCP is limited to one-story single family dwellings and accessory structures.

**RATIONALE:**

The proposed amendment addresses the problem of poor performance of gypsum wallboard and Portland cement plaster as wall bracing materials in high seismic areas. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance of these bracing materials that were observed in 1994 Northridge earthquake.



**DATE:** October 8, 2013

**CATEGORY:** Public Hearing

**DEPT.:** Community Development

**TITLE:** **Public Hearing on Assessment for Business Improvement District (BID) No. 2 and Allocation of 2014 BID Revenues**

### **RECOMMENDATION**

1. Adopt A RESOLUTION LEVYING THE ANNUAL BENEFIT ASSESSMENTS FOR FISCAL YEAR 2014 FOR DOWNTOWN MOUNTAIN VIEW BUSINESS IMPROVEMENT DISTRICT (BID) NO. 2, to be read in title only, further reading waived (Attachment 1 to the Council report).
2. Authorize the City Manager to execute a contract for services with the Central Business Association (CBA) for 2014 and authorize the allocation of 2014 revenues from BID No. 1 and BID No. 2 to the CBA.

### **BACKGROUND**

A Business Improvement District (BID) is a common way to generate funds for downtown by requiring that each business in the District pay a BID fee in addition to the business license fee. The fees vary by type, size, and location of business but are not subject to Proposition 218 because they are business-based, not property-based. State law requires that these funds be used for advertising, promotion, special events, or other activities that promote the downtown. The State law also allows the fees to be used for lighting, cleaning, parking maintenance, or some other activities. The fees are either to be used by the City or allocated to an organization like the Chamber of Commerce or the CBA. The two Mountain View BIDs were initiated by the CBA. Revenues have always been allocated to the CBA.

Mountain View has two Business Improvement Districts (Attachment 2). The 1983 Business Improvement District, BID No. 1, includes the length of Castro Street and some side streets. The 1991 Business Improvement District, BID No. 2, includes a smaller area in the 100, 200, and 300 blocks of Castro Street. The Districts serve the same purpose but were enacted under different State-enabling legislation. In 1991, the CBA recommended, and the City Council approved, the formation of the second

District when the CBA identified the need to increase BID revenues in 1991. The rationale for the boundaries of BID No. 2 is that this is the area which receives most benefit from the CBA events and promotions.

### **ANALYSIS**

The two Business Improvement Districts provide an estimated \$48,225 in assessment revenues, which constitute approximately 23 percent of the CBA's operating budget. BID No. 2 requires both a public meeting as well as a Public Hearing in order to adopt fees and authorize expenditure of funds; whereas, the State legislation used to enact BID No. 1 automatically assesses fees and will only require BID No. 1 to go to a public meeting and hearing when fees are raised and/or the fee structure is modified.

At the September 3, 2013, public meeting, the City Council set a date for the Public Hearing and preliminarily approved the report submitted by the CBA. The report summarizes how the 2013 BID funds were used and how the CBA intends to use the 2014 BID revenues. The City Council also discussed the BID fee structure of both Districts.

At the October 8, 2013, Public Hearing, the Council will be asked to review and give final approval to the CBA, levy the assessments, and allocate the 2014 funds from both Districts to the CBA. A fee increase is not recommended this year.

### **FISCAL IMPACT**

All 300+ downtown businesses are included in the BID No. 1 and are charged either \$50 (office), \$150 (retail), or \$200 (restaurant). Businesses in the 100, 200, and 300 blocks of Castro Street (approximately 135 businesses) are assessed an additional \$25 to \$175 for BID No. 2.

The assessments for both Districts are added to the \$30 business license fee and are due with the renewal of business licenses in January. There is no increase proposed for the upcoming fiscal year. The revenues from the two Districts are estimated to be \$36,850 for BID No. 1 and \$11,375 for BID No. 2 and can be used for a variety of activities, including downtown maintenance and promotion. The report from the CBA (Attachment 3) identifies each affected business, the proposed assessments, and how the CBA intends to use these revenues during 2014.

## **ALTERNATIVES**

If the resolution levying the annual assessment and the authorization for the City Manager to execute a contract with the Central Business Association is not adopted, the BIDs fees would not be levied and the 2014 funds from both Districts would not be allocated to the CBA. The CBA would need to seek new funding or reduce its programming.

## **PUBLIC NOTICING**

Notice of the Public Hearing was mailed to all businesses in the two Districts and will appear in a flyer the CBA distributed to every downtown business and in the *San Jose Post Record*, the official record for the City of Mountain View. Notice of the October 8, 2014, public meeting was also included in the standard Council agenda notice and posting procedures.

Prepared by:

Tiffany J. Chew  
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Reviewed by:

Alex Andrade  
Economic Development Manager

Approved by:

Randal Tsuda  
Community Development Director

Daniel H. Rich  
City Manager

TC-AA/7/CAM  
822-10-08-13CR-E

Attachments: 1. Resolution Levying the Annual Benefit Assessment for 2014  
2. Business Improvement District Map  
3. Business Improvement District Annual Report 2013

cc: Ms. Julie Smiley  
Central Business Association

Downtown Committee

CITY OF MOUNTAIN VIEW  
RESOLUTION NO.  
SERIES 2013

A RESOLUTION LEVYING THE ANNUAL BENEFIT ASSESSMENTS FOR  
FISCAL YEAR 2014 FOR DOWNTOWN MOUNTAIN VIEW  
BUSINESS IMPROVEMENT DISTRICT (BID) NO. 2

WHEREAS, on November 26, 1991, the City Council held a duly noticed Public Hearing in the City Council Chambers, 500 Castro Street, Mountain View, California, and formed the Downtown Mountain View Business Improvement District No. 2, pursuant to Ordinance No. 22.91 and in accordance with Sections 36500, *et seq.* of the California Streets and Highways Code; and

WHEREAS, the City Council has reviewed and considered the staff report on the Downtown Mountain View Business Improvement District No. 2 and the proposed assessments and uses of revenues for Fiscal Year 2014; and

WHEREAS, the Central Business Association, acting as the advisory board to the City Council on the Downtown Mountain View Business Improvement District No. 2, has filed the required annual report on the use of funds generated by the assessments in 2013 and the proposed uses for 2014, and the City Council has reviewed and considered said report; and

WHEREAS, on September 3, 2013, the City Council held a public meeting on this matter and preliminarily approved the report from the Central Business Association; and

WHEREAS, a notice of the proposed assessment has been published once in a newspaper of general circulation as required; and

WHEREAS, on October 8, 2013, the City Council held a duly noticed Public Hearing regarding the 2014 assessments and charges, and the uses to which revenues shall be put, which, as recommended by the advisory board, are to remain unchanged from 2013;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Mountain View as follows:

1. The City Council has considered all public comments, oral and written, and hereby finds and determines that the protests, if any, received at the Public Hearing on

Fiscal Year 2014 assessments for the Downtown Mountain View Business Improvement District No. 2 do not constitute a majority protest to the assessments, or to the types of improvements and/or activities to be funded with the revenues from the assessments.

2. The boundaries of Downtown Mountain View Business Improvement District No. 2 shall remain unchanged from the boundaries established by Ordinance No. 22.91 and are generally described as all businesses located on Castro Street, between Evelyn Avenue to the north and California Street to the south, including all businesses with street addresses numbered 100 through 399, inclusive, as more particularly described in Exhibit A attached to Ordinance No. 22.91.

3. The annual benefit assessments for Fiscal Year 2014 are hereby confirmed and shall be levied on and collected with the annual City business license fee from all businesses, trades, and professions, excluding nonprofit organizations located within the Downtown Mountain View Business Improvement District No. 2 and are hereby established as the following amounts:

Type of <u>Establishment</u>	0 to 2,999 <u>Square Feet</u>	3,000 to 7,999 <u>Square Feet</u>	8,000 Square Feet <u>and Up</u>
Restaurants	\$125	\$150	\$175
Retail	\$75	\$100	\$125
Professional	\$25	\$50	\$75

4. The uses of the revenues from this Business Improvement District are as follows:

- a. The general promotion of businesses within the area; and
- b. Other activities or improvements which benefit businesses located and operating in the Business Improvement District.

5. The City Council hereby finds and determines that the businesses located within the aforesaid Downtown Mountain View Business Improvement District No. 2 shall be benefited by the improvements and activities funded by the assessments to be levied pursuant to this ordinance.

6. The improvements and activities provided in the Business Improvement District will be funded by the levy of the assessments. Revenues from the levy of the assessments within this area shall not be used to provide improvements or activities outside this area.

7. The City Manager is authorized to execute a contract for services with the Central Business Association to accomplish the purposes of the District as set forth herein and in the referenced staff report and annual report and to accomplish the purposes of Business Improvement District No. 1.

8. The City Council does hereby authorize the allocation of all 2014 revenues from Business Improvement District No. 1 and Business Improvement District No. 2 to fund said contract.

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TC/7/RESO  
822-10-08-13Res-E





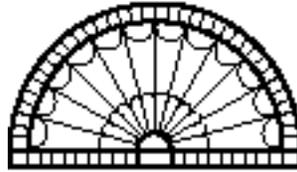
# **Mountain View Central Business Association**

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## **Business Improvement District Annual Report 2013**

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- I. Summary
- II. Committees
- III. Goals & Accomplishments
- IV. Financial Statement
- V. BID Assessment Listing



## Mountain View Central Business Association

### Business Improvement District 2013 Summary Report

*The following information conforms with the requirements of the State law on  
Parking and Business Improvement Areas.*

**PROPOSED CHANGES TO THE DISTRICT ASSESSMENT:    NONE**

#### BID FEE STRUCTURE:

BID #1 - Evelyn Avenue to High School Way, and two blocks on both sides of Castro St.

Restaurant	\$200
Retail	\$150
Professional	\$50
Bank	\$150

BID #2 - 100-300 blocks of Castro St. (the historical section, based on square footage).

	<u>0-2999sq ft</u>	<u>3000-7999sq ft</u>	<u>8000sq ft.+</u>
Restaurant	\$125	\$150	\$175
Retail	\$75	\$100	\$125
Professional	\$75	\$100	\$125

#### ESTIMATED BUDGET:

The operating budget for 2013 is \$204,518

The estimated operating budget for 2014 is \$211,550

Note: The estimated 2014 budget is factored with the continued approval of Thursday Night Live. Understanding that if the event continues, the CBA's role will be to sell beverages as a fundraising opportunity.

SERVICES PROVIDED:

Recognizing that CBA's primary community event is A La Carte & Art, the Board continues reviewing new programs, as well as enhancing the events that are currently offered, while maintaining a balanced budget.

- A La Carte & Art Festival

2013 was the 17<sup>th</sup> year for this community event. This was the second year of the event's move to the first weekend in May. This move placed us ahead of most other events around the Bay Area, lessening the competition. We experienced a significant increase in beverage sales, artist sales, and vendor interest. Overall, it was the most successful festival for the CBA to date.

- Thursday Night Live

This was the seventh year organizing this fun community event. The tasks included coordinating participation of vendors, activities and entertainment, as well as coordination of the marketing and advertising. Each year we continue to see growth in the attendance.

- Block Captain Program

The Block Captain Program is comprised of merchants who volunteer to serve as a point of contact for a specific block location of Castro Street. They build relationships with business owners and keep in communication as topics come up pertaining to the downtown. This program is on-going.

- Business Watch Program

The Business Watch Program works with our Block Captains to connect with merchants and the Police Department on safety and crime issues pertaining to the downtown. Quarterly update meetings are held at the Police Department to discuss topics.

- Collaboration with the Chamber of Commerce:

This is the third year the CBA has worked alongside the Chamber to develop downtown specific stories on the I Love MV website. The featured businesses have reported positive feedback from customers mentioning they read the featured story.

- Downtown Guides

Every January the CBA prints out the Downtown Guides for distribution to local businesses, hotels, corporate offices, and we even mail a few across country.

- Downtown Website

[www.mountainviewdowntown.com](http://www.mountainviewdowntown.com).

This year we gave our site a fresh new look and feel! Our homepage features the latest events as well as "What's New" and "What's Happening" in the downtown. The business listings have been reformatted for an easier experience. We've also linked to I Love MV and Facebook.

- Social Media

Find us on Facebook at Mtn. View Central Business Association

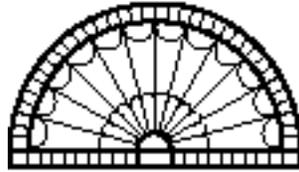
This year we created a social media presence on Facebook! The Facebook page is updated twice a week. We are continuously taking pictures around the downtown and posting them. We currently have 155 likes and continue to grow our followers.

- Wine Walk

This year we are hosting the 1<sup>st</sup> annual downtown Wine Walk on Thursday, October 10 from 5:30 pm to 8:30 pm. Participants will experience our wonderful downtown retailers as they sample great wines from Healdsburg to Carmel Valley and from Santa Cruz to Lodi. Along with the wine, patrons will also sample foods from many of our diverse restaurants. Our goal is to bring 400 participants through our businesses during this fabulous event.

- Holiday Open House

Each year the CBA hosts a Holiday Open House alongside the City Tree Lighting Ceremony. The Mountain View High School Madrigals carol along Castro Street one hour before and one hour after their performance at City Hall. We encourage businesses to stay open and offer specials.



## Mountain View Central Business Association

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### COMMITTEES

#### **Executive Committee**

Responsible for the following:

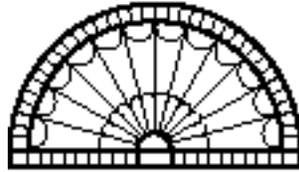
- Board Relations
- Bylaws
- Executive Director Reviews
- Finances
- Nominations
- Policies

#### **Promotion Committee**

Responsible for the marketing of the downtown, through programs that include special events, advertising campaigns and promotional materials.

#### **Relations/Development Committee**

Responsible for keeping the membership informed about issues and programs for the CBA. They keep a communication link with the merchants, Chamber, community at large, city committees and departments, as well as neighborhood associations.



## Mountain View Central Business Association

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### 2013 ACCOMPLISHMENTS

#### **Community Events:**

1. Sponsored the 17th annual A La Carte & Art festival on May 4 & 5
2. Coordinated and managed the 7<sup>th</sup> annual Thursday Night Live series
3. Hosting 1<sup>st</sup> annual “Wine Walk” event on October 10

#### **Executive Committee:**

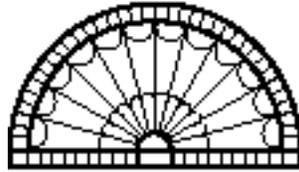
1. Compile year-end report for Council
2. Develop 2014 Action Plan and Budget
3. Nominations for 2014 Board of Directors

#### **Promotions Committee:**

1. Publish and distribute Downtown Guides containing listings of restaurants, retailers, services and maps of downtown
2. Update and refine downtown website
3. Coordinate Thursday Night Live events
4. Partner with the Chamber of Commerce
5. Coordinate Holiday Open House
6. Collaborate with the Chamber of Commerce’s I Love MV website to feature downtown merchant stories
7. Create and implement annual “Wine Walk” event
8. Create and manage Facebook page

#### **Relations/Development Committee:**

1. Hold quarterly Block Captain meetings with the Police Department
2. Recruit and train new Block Captains for the Business Watch Program
3. Co-sponsor business training opportunities with the Police Department (retail, building, and holiday security as well as “as needed” issues)



## Mountain View Central Business Association

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### 2014 GOALS

#### **Community Events:**

1. Sponsor 18th annual A La Carte & Art in May
2. Sponsor Holiday Open House
3. Sponsor annual Wine Walk

#### **Executive Committee:**

1. Compile year-end report for Council
2. Develop 2015 Action Plan and Budget
3. Nominations for 2015 Board of Directors

#### **Promotions Committee:**

1. Continue to enhance and increase the distribution of the Downtown Guide
2. Update and enhance the downtown website
3. Research new events and promotions to attract greater community awareness
4. Continue to work with the Chamber of Commerce
5. Host Coffee with the Mayor event
6. Continue to create new events
7. Continue to maintain social media presence

#### **Relations and Development Committee:**

1. Continue working with the MVPD to improve and maintain safety in the downtown
2. Continue working with City and Chamber on retail recruitment strategies
3. Continue community outreach through Block Captain Program
4. Work with property owners to encourage facade improvements and ongoing maintenance
5. Work with the City to maintain the economic vitality of the downtown

The Central Business Association looks forward to another year of working with The City of Mountain View to maintain a successful, thriving downtown.

Mountain View Central Business Association  
2013 Board of Directors

MOUNTAIN VIEW CENTRAL BUSINESS ASSOCIATION  
Projected Budget

	(Actual)	(Est.)	(Est.)
	<u>2012</u>	<u>2013</u>	<u>2014</u>
REVENUE			
EVENTS REVENUE			
A La Carte & Art	130,422	143,000	145,000
Thursday Night Live City Agreement	20,000	11,000	0
Thursday Night Live Beverage Sales	6,096	5,033	6,100
Wine Walk	0	12,000	12,000
TOTAL EVENTS REVENUE	156,518	171,033	163,100
Assessments	42,956	33,260	48,225
Sponsorship Revenue	0	0	0
Interest Income	228	225	225
Misc. Income	600	0	0
TOTAL REVENUE	200,302	204,518	211,550
EXPENSES			
EVENTS EXPENSE			
A La Carte & Art	86,224	90,315	91,000
Thursday Night Live	10,942	6,500	2,500
Wine Walk	0	10,000	8,000
TOTAL EVENTS EXPENSE	97,166	106,815	101,500
Advertising/Promotions: Guide & Website	6,746	4,500	4,500
Contract Labor	0	1,600	1,800
Depreciation	195	195	200
Employee Benefits	6,422	6,600	6,800
Insurance	1,104	1,800	1,800
Legal & Accounting	1,275	1,500	1,500
Miscellaneous	850	900	900
Newsletter & Postage	0	350	350
Office Supplies & Equip.	435	500	500
Relations	23	250	250
Rent & Utilities	8,400	9,000	9,000
Salaries - Director	52,500	52,500	52,500
Telephone & Internet	2,122	1,900	1,900
Taxes, Payroll & Property	<u>4,387</u>	<u>4,600</u>	<u>4,600</u>
TOTAL EXPENSES	181,625	193,010	188,100
END OF YEAR BALANACE	18,677	11,508	23,450

<b><u>BUSINESS NAME</u></b>	<b><u>STREET</u></b>	<b><u>TYPE</u></b>	<b><u>BID 1</u></b>	<b><u>BID2</u></b>	<b><u>TOTAL</u></b>
API Design	200 Blossom Lane	PROF	50	50	100
WhatsApp Inc.	303 Bryant Street, Ste. 100	PROF	50		50
Speck	303 Bryant Street	PROF	50		50
Jasper Design Automation	707 California Street	PROF	50		50
Matasano Security	756 California Street Ste A	PROF	50		50
Dental Fabulous	756 California Street Ste B	PROF	50		50
Dana Market	800 California Street	RETAIL	150	75	225
Shiva's Indian Restaurant	800 California Street	REST	200	150	350
Clover Network, Inc.	800 California Street #200	PROF	50	25	75
Rockmelt Inc.	800 California Street #300	PROF	50	25	75
Fenwick & West LLP	801 California Street	PROF	50		50
CVS Pharmacy	850 California Street	RETAIL	150		150
Vasso Azzuro	108 Castro Street	REST	200	125	325
Xanh Restaurant	110 Castro Street	REST	200	150	350
HoneyCreek	124 Castro Street	REST	200	150	350
The Workshop	126 Castro Street	REST	200	150	350
Han Gen Restaurant	134 Castro Street	REST	200	150	350
Olympus Café & Bakery	135 Castro Street	REST	200	125	325
Asian Box	142 Castro Street	REST	200	125	325
Fotron	143 Castro Street	RETAIL	150	75	225
Blue Line Pizza	146 Castro Street	REST	200	125	325
Dyxera	147 Castro Street #2	PROF	50	25	75
Hong Kong Bistro	147 Castro Street #1	REST	200	125	325
Bluedata Software, Inc.	148 Castro Street #A1	PROF	50	25	75
KayBus Inc.	148 Castro Street #A2	PROF	50	25	75
Sokikom	148 Castro Street # B2, B8, B11	PROF	50	25	75
Miselu, Inc.	148 Castro Street #B3	PROF	50	25	75
Canopy Data	148 Castro Street #B4	PROF	50	25	75
Cloud 9 Performance Solutions	148 Castro Street #B6	PROF	50	25	75
Methodics	148 Castro Street #B1	PROF	50	25	75
Marivus Consulting	148 Castro Street #B10	PROF	50	25	75

<b><u>BUSINESS NAME</u></b>	<b><u>STREET</u></b>	<b><u>TYPE</u></b>	<b><u>BID 1</u></b>	<b><u>BID2</u></b>	<b><u>TOTAL</u></b>
OSKI Technology Inc.	148 Castro Street #B12	PROF	50	25	75
LocalHarvest	148 Castro Street #B13	PROF	50	25	75
Mieple, Inc.	148 Castro Street #B14	PROF	50	25	75
Nupat LLC	148 Castro Street #B17	PROF	50	25	75
inEvention Technology, Inc.	148 Castro Street #B20	PROF	50	25	75
La Bamba Restaurant	152 Castro Street	REST	200	125	325
Fu Lam Mum	153 Castro Street	REST	200	150	350
Tigerlogic	153 Castro Street, 3rd Flr.	PROF	50	50	100
Bushido	156 Castro Street	REST	200	125	325
Pasta?	160 Castro Street	REST	200	125	325
MV Lock & Key	171 Castro Street	RETAIL	150	75	225
Amarin Thai Cuisine	174 Castro Street	REST	200	125	325
Jehning Family Lock Museum	175 Castro Street	PROF	50	25	75
Shabuway	180 Castro Street	REST	200	125	325
EAGLES	181 Castro Street	PROF	50	25	75
Ephesus	185 Castro Street	REST	200	125	325
La Fontaine	186 Castro Street	REST	200	125	325
191 Grill and Bar	191 Castro Street	REST	200	125	325
GainSight	191 Castro Street	PROF	50	50	100
Agave	194-198 Castro Street	REST	200	150	350
Baydin Inc.	196 Castro Street	PROF	50	25	75
Velocity	196 Castro Street, Ste D	PROF	50	25	75
Red Rock Coffee	201 Castro Street	REST	200	125	325
Highway Media	201 Castro Street 3rd Floor	PROF	50	50	100
Odd Fellows	206 Castro Street	PROF	50	25	75
Tsunami Sushi	209 Castro Street	REST	200	125	325
Hong Kong Bakery	210 Castro Street	REST	200	125	325
Alpine Books	211 Castro Street	RETAIL	150	75	225
Gyros House	212 Castro Street	REST	200	125	325
Nebula	215 Castro Street, 3rd Floor	PROF	50	50	100
Bitcasa	215 Castro Street, 2nd Floor	PROF	50	50	100

<b><u>BUSINESS NAME</u></b>	<b><u>STREET</u></b>	<b><u>TYPE</u></b>	<b><u>BID 1</u></b>	<b><u>BID2</u></b>	<b><u>TOTAL</u></b>
Shezan Restaurant	216 Castro Street	REST	200	125	325
Pho Hoa	220 Castro Street	REST	200	125	325
St. Stephens Green	223 Castro Street	REST	200	125	325
Monte Carlo	228 Castro Street	REST	200	150	350
Don Giovanni Restaurant	235 Castro Street	REST	200	150	350
Chef Liu	236 Castro Street	REST	200	150	350
Kappo Naminami	240 Castro Street	REST	200	150	350
Molly Magees	241 Castro Street	REST	200	125	325
Gelato Classico	241 Castro Street, #B	REST	200	125	325
Pho Garden	246 Castro Street	REST	200	150	350
Therapy	250 Castro Street	RETAIL	150	75	225
Zen Lounge	251 Castro Street	REST	200	150	350
Crazy Heart	257 Castro Street, Ste. 100	RETAIL	150	75	225
Longs Immigration and Tax Services	257 Castro Street, Ste. 101	RETAIL	150	75	225
Teleki Design	257 Castro Street, Ste. 102	PROF	50	25	75
4 Step Finance Inc.	257 Castro Street, Ste. 104	PROF	50	25	75
AP+I Design Inc.	257 Castro Street, Ste. 105	PROF	50	25	75
Castro Street Music Studios	257 Castro Street, Ste. 106	PROF	50	25	75
Wifislam, Inc	257 Castro Street, Ste. 107	PROF	50	25	75
CYH	257 Castro Street, Ste. 108	PROF	50	25	75
National Travel	257 Castro Street, Ste. 110	PROF	50	25	75
Hair & Now	257 Castro Street, Ste. 112	RETAIL	150	75	225
F. Wong & Associates Inc.	257 Castro Street, Ste. 115	PROF	50	25	75
Ohmware	257 Castro Street, Ste. 200	PROF	50	25	75
SSGI Asia	257 Castro Street, Ste. 201	PROF	50	25	75
American Vacation Travel	257 Castro Street, Ste. 204	PROF	50	25	75
Lightside Games Inc.	257 Castro Street, Ste. 206	PROF	50	25	75
William Robertson	257 Castro Street, Ste. 208	PROF	50	25	75
KLF	257 Castro Street, Ste. 209	PROF	50	25	75
Jasmine Teleki Psy D	257 Castro Street, Ste. 210	PROF	50	25	75
Farmer's Insurance	257 Castro Street, Ste. 211	PROF	50	25	75

<b><u>BUSINESS NAME</u></b>	<b><u>STREET</u></b>	<b><u>TYPE</u></b>	<b><u>BID 1</u></b>	<b><u>BID2</u></b>	<b><u>TOTAL</u></b>
Sociometric Solutions Inc	257 Castro Street, Ste. 214	PROF	50	25	75
Lightside Games Inc.	257 Castro Street, Ste. 215	PROF	50	25	75
Summa Therapeutics Inc	257 Castro Street, Ste. 216	PROF	50	25	75
Jasmine Teleki Psy D	257 Castro Street, Ste. 218	PROF	50	25	75
Barg	257 Castro Street, Ste. 219	PROF	50	25	75
Simplesoft Inc.	257 Castro Street, Ste. 220	PROF	50	25	75
Lightside Games Inc.	257 Castro Street, Ste. 222	PROF	50	25	75
N. CA. Health & Acupuncture	257 Castro Street, Ste. 223	PROF	50	25	75
Claude Gardner, CPA	257 Castro Street, Ste. 224	PROF	50	25	75
Yoogl	260 Castro Street	REST	200	125	325
West Valley Music	262 Castro Street	RETAIL	150	75	225
Action Properties	268 Castro Street	PROF	50	25	75
FogHorn Consulting LLC	268 Castro Street	PROF	50	25	75
Tea Era	271 Castro Street	REST	200	125	325
Queen House Chinese Restaurant	273 Castro Street	REST	200	125	325
Assemblymember Paul Fong	274 Castro Street, Ste. 202	PROF	50	25	75
Elastic Box	274 Castro Street, Ste. 203	PROF	50	25	75
Bloomboard	274 Castro Street, Ste. 204	PROF	50	25	75
Millenium Broadcasting	274 Castro Street, Ste. 206	PROF	50	25	75
Mt. View Tea Village & Gallery	275 Castro Street	RETAIL	150	100	250
Quixey	278 Castro Street	PROF	50	75	125
Boutique 4	279 Castro Street	RETAIL	150	100	250
Villa Rouge	282 Castro Street	RETAIL	150	100	250
In Step	285 Castro Street	RETAIL	150	100	250
Park Ballachi	288 Castro Street	REST	200	125	325
Art Frame Studio	293 Castro Street	RETAIL	150	100	250
Seascapes Aquarium	298 Castro Street	RETAIL	150	75	225
Easy Foods Company	299 Castro Street	RETAIL	150	100	250
The Crepevine	300 Castro Street	REST	200	125	325
Books Inc.	301 Castro Street	RETAIL	150	100	250
Café Romanza	301 Castro Street	REST	200	125	325

<b><u>BUSINESS NAME</u></b>	<b><u>STREET</u></b>	<b><u>TYPE</u></b>	<b><u>BID 1</u></b>	<b><u>BID2</u></b>	<b><u>TOTAL</u></b>
New Mongolian BBQ	304 Castro Street	REST	200	125	325
Tap Plastics Inc.	312 Castro Street	RETAIL	150	100	250
The Book Buyers	317 Castro Street	RETAIL	150	100	250
Peel Technologies Inc	321 Castro Street	PROF	50	25	75
East West Bookshop	324 Castro Street	RETAIL	150	100	250
Ava's Downtown Market	340 Castro Street	RETAIL	150	125	275
Café Baklava	341 Castro Street, Ste. A & B	REST	200	125	325
Qigong	341 Castro Street, Ste. D	PROF	50	25	75
Global Beads	345 Castro Street	RETAIL	150	100	250
Sono Sushi	357 Castro Street	REST	200	125	325
Sakoon	357 Castro Street	REST	200	175	375
Raybeam Solutions	357 Castro Street, Ste. 2	PROF	50	25	75
E Threading	357 Castro Street, Ste. 4	RETAIL	150	75	225
Inline Massage	357 Castro Street, Ste. 6	RETAIL	150	75	225
Ideal Holidays	357 Castro Street, Ste. 7	PROF	50	25	75
Kim's Tae Kwon Do	361 Castro Street	PROF	50	25	75
For Your Hair Only	364 Castro Street	RETAIL	150	75	225
Maruichi	368 Castro Street	REST	200	125	325
Sight Optometry	369 Castro Street	RETAIL	150	75	225
Nevo Capitina, Attorney at Law	372 Castro Street	PROF	50	25	75
CA Acupuncture Health Center	375 Castro Street	RETAIL	150	75	225
Shiseido Cosmetics/Vee Cosmetics	380 Castro Street	RETAIL	150	75	225
Steak Out	383 Castro Street	REST	200	125	325
Matson Architect	384 Castro Street	PROF	50	25	75
Fenwick & West LLP	400 Castro Street	PROF	50		50
Cascal Restaurant	400 Castro Street	REST	200		200
Scratch	401 Castro Street	REST	200		200
Neustar	401 Castro Street	PROF	50		50
Scott's Seafood	420/440 Castro Street	REST	200		200
Game Closure	421 Castro Street	PROF	50		50
Came Closure	421 Castro Street	PROF	50		50

<b><u>BUSINESS NAME</u></b>	<b><u>STREET</u></b>	<b><u>TYPE</u></b>	<b><u>BID 1</u></b>	<b><u>BID2</u></b>	<b><u>TOTAL</u></b>
Game Closure	429 Castro Street	PROF	50		50
Bank of America	444 Castro Street, #100	BANKS	150		150
Hawley Peterson & Snyder Architects	444 Castro Street, #1000	PROF	50		50
Wal-Mart Labs	444 Castro Street, #109	PROF	50		50
Alphagraphics	444 Castro Street, #110	RETAIL	150		150
Red Hat, Inc.	444 Castro Street, #1100	PROF	50		50
Kaazing Corp.	444 Castro Street, #1100	PROF	50		50
Posh Bagel	444 Castro Street, #120	REST	200		200
500 Start Ups	444 Castro Street, #1200	PROF	50		50
Announce Media	444 Castro Street, #200	PROF	50		50
The Swig Company	444 Castro Street, #302	PROF	50		50
Clover	444 Castro Street, #320	PROF	50		50
Ozy Media	444 Castro Street, # 303	PROF	50		50
WareConnex	444 Castro Street, #305	PROF	50		50
JD Strategies, Inc	444 Castro Street, #318	PROF	50		50
SOASTA	444 Castro Street, #400	PROF	50		50
Red Hat, Inc.	444 Castro Street, #500	PROF	50		50
Transcosmos, Inc.	444 Castro Street, #700	PROF	50		50
NHN USA	444 Castro Street, #702	PROF	50		50
Clari	444 Castro Street, #707	PROF	50		50
Rignite, Inc.	444 Castro Street, #710	PROF	50		50
NCP Engineering Inc.	444 Castro Street, #711	PROF	50		50
Red Hat, Inc.	444 Castro Street, #800	PROF	50		50
Creative Commons	444 Castro Street, #900	PROF	50		50
Law Office of David Magnuson	444 Castro Street, #912	PROF	50		50
Boundary, Inc.	444 Castro Street, #917	PROF	50		50
TIS Research and Development Ctr.	444 Castro Street, #918	PROF	50		50
Mtn. View Dental Care	451 Castro Street	PROF	50		50
Yoga Belly	455 Castro Street	RETAIL	150		150
Game Closure	457 Castro Street	PROF	50		50
Casa Lupe	459 Castro Street	REST	200		200

<b><u>BUSINESS NAME</u></b>	<b><u>STREET</u></b>	<b><u>TYPE</u></b>	<b><u>BID 1</u></b>	<b><u>BID2</u></b>	<b><u>TOTAL</u></b>
Game Closure	461 Castro Street	PROF	50		50
Game Closure	465 Castro Street	PROF	50		50
Valley View Dental Care	471 Castro Street	PROF	50		50
Ginseng Korean BBQ	475 Castro Street	REST	200		200
Kirin Chinese Food	485 Castro Street	REST	200		200
Eyewear Designs of Mtn. View/ Mtn View Optometry	495 Castro Street, #100	RETAIL	150		150
June Withers, MD	495 Castro Street, #102	PROF	50		50
Bean Scene	500 Castro Street	REST	200		200
Bank of the West	501 Castro Street	BANKS	150		150
Kaiser Permanente	555 Castro Street	PROF	50		50
The Permanente Medical Group	565 Castro Street	PROF	50		50
Wells Fargo Bank	590 Castro Street	BANKS	150		150
Yoga is Youthful	590 Castro Street	PROF	50		50
Elementum	650 Castro Street, Ste. 100	PROF	50		50
Morgan Stanley Smith Barney	650 Castro Street, Ste. 105	PROF	50		50
Mediterranean Grill House	650 Castro Street, Ste. 110	REST	200		200
The UPS Store	650 Castro Street, Ste. 120	RETAIL	150		150
Spica Coffee & Tea	650 Castro Street, Ste. 130	REST	200		200
Site for Sore Eyes	650 Castro Street, Ste. 150	RETAIL	150		150
Stirling Vision Care	650 Castro Street, Ste. 150	PROF	50		50
State Farm Insurance - Shana Nelson	650 Castro Street, Ste. 155	PROF	50		50
Le Boulanger	650 Castro Street, Ste. 160	REST	200		200
Le Boulanger	650 Castro Street, Ste. 170	REST	200		200
La Monique's Nail Salon	650 Castro Street, Ste. 175	RETAIL	150		150
Fluffy Puffy	650 Castro Street, Ste 180	REST	200		200
aXess Cleaners	650 Castro Street, Ste. 185	RETAIL	150		150
Attainia	650 Castro Street, Ste. 200	PROF	50		50
TOTVS Labs	650 Castro Street, Ste. 210	PROF	50		50
Meta Integration Technology Inc.	650 Castro Street, Ste. 220	PROF	50		50
Napatech	650 Castro Street, Ste. 240	PROF	50		50
Kahuna	650 Castro Street, Ste. 250	PROF	50		50

<b>BUSINESS NAME</b>	<b>STREET</b>	<b>TYPE</b>	<b>BID 1</b>	<b>BID2</b>	<b>TOTAL</b>
Mozilla	650 Castro Street, Ste. 300	PROF	50		50
Quora	650 Castro Street, Ste. 450	PROF	50		50
Pure Storage Inc.	650 Castro Street, Ste. 400	PROF	50		50
Giovanna's Fine Jewelry	655 Castro Street #1	RETAIL	150		150
Kicksend	655 Castro Street #2, #7, #8	PROF	50		50
Palacios Beauty Salon	655 Castro Street #3	RETAIL	150		150
955 Dreams	655 Castro Street #4, #5, #6	PROF	50		50
Kicksend	655 Castro Street #8	PROF	50		50
Starbuck's Coffee	750 Castro Street	REST	200		200
Listia	785 Castro Street #C	PROF	50		50
H Hall	785 Castro Street #A	PROF	50		50
Amici's Pizzeria	790 Castro Street	REST	200		200
Spangler Mortuary	799 Castro Street	PROF	50		50
Mountain View Funeral & Cremation Service	805 Castro Street	RETAIL	150		150
Fleur De Lis	811 Castro Street	RETAIL	150		150
Gorgeous Nails	821 Castro Street	RETAIL	150		150
Aruba Day Spa & Salon	825 Castro Street	RETAIL	150		150
Advanced Information Management	843 Castro Street	PROF	50		50
Morroco's	873 Castro Street	REST	200		200
Weather Sphere	881 Castro Street	PROF	50		50
Duke Khuu, MD / Keith Khuu, DDS	889 Castro Street	PROF	50		50
Cognition Cyclery	903 Castro Street	RETAIL	150		150
Ron Ikebe Realtor	278 Hope Street #B	PROF	50		50
YouEye	278 Hope Street #C	PROF	50		50
Hope Street Music Studios	278 Hope Street #E	PROF	50		50
Baydin	280 Hope Street	PROF	50		50
Altos Research	280 Hope Street	PROF	50		50
Tappan Street Partners	280 Hope Street	PROF	50		50
SBC	305 Hope Street	PROF	50		50
Hope Realty	473 Hope Street	PROF	50		50
Simon-Kucher & Partners LLC	100 View Street #100/#102	PROF	50		50

<b>BUSINESS NAME</b>	<b>STREET</b>	<b>TYPE</b>	<b>BID 1</b>	<b>BID2</b>	<b>TOTAL</b>
Polyvore	100 View Street #101	PROF	50		50
Luminate	100 View Street #201	PROF	50		50
Remilon, LLC	100 View Street #202	PROF	50		50
Helena Lou, Henry Liu CPA's	100 View Street #208	PROF	50		50
Storek, Carlson & Strutz CPA's	100 View Street #208	PROF	50		50
Dr. Wang DDS	682 Villa Street #A	PROF	50		50
Lenhardt Dental Lab	682 Villa Street #C	PROF	50		50
Lawrence Yih-loing Hong, DDS	682 Villa Street #F	PROF	50		50
Enimai	701 Villa Street	PROF	50		50
Bangkok Spoon	702 Villa Street	REST	200		200
Jane's Beer Store	720 Villa Street	RETAIL	150		150
Carmen's Legal Resource Center	726 Villa Street	PROF	50		50
Salon Finesse	732 Villa Street	RETAIL	150		150
Fiesta Del Mar Too	735 Villa Street	REST	200		200
A Minute Man Shoe Repair	738 Villa Street	RETAIL	150		150
Tapioca Express	740/742 Villa Street	REST	200	125	325
Perfect Salon	744 Villa Street	RETAIL	150	75	225
Sugar Spa	764 Villa Street	RETAIL	150	75	225
Liew Design	759 Villa Street #D	PROF	50		50
Plan A Inc.	759 Villa Street #A	PROF	50		50
Old Fellows	823 Villa Street	PROF	50		50
Totoro Restaurant	841 Villa Street	REST	200		200
Laura's Hair Salon	845 Villa Street	RETAIL	150		150
Verde Tea Café	852 Villa Street	REST	200		200
Pho To Chau	853 Villa Street	REST	200		200
Aesthetic Skin Care Center	854 Villa Street	RETAIL	150		150
Imagine Hair Salon	857 Villa Street	RETAIL	150		150
Imagine Alterations	857 Villa Street	RETAIL	150		150
Happy Feet Foot Spa	858 Villa Street	RETAIL	150		150
Ryowa Noodle House	859 Villa Street	REST	200		200
Careful Cleaners	860 Villa Street	RETAIL	150		150

<b><u>BUSINESS NAME</u></b>	<b><u>STREET</u></b>	<b><u>TYPE</u></b>	<b><u>BID 1</u></b>	<b><u>BID2</u></b>	<b><u>TOTAL</u></b>
Allure Salon	888 Villa Street #100	RETAIL	150		150
Silicon Thermal	888 Villa Street #110	PROF	50		50
Chesapeake Technology Inc.	888 Villa Street #200	PROF	50		50
Maginatics	888 Villa Street #210	PROF	50		50
Maginatics	888 Villa Street #230	PROF	50		50
Room 77	888 Villa Street #300	PROF	50		50
WiFast	888 Villa Street #410	PROF	50		50
Midverse Studios	888 Villa Street #430	PROF	50		50
Boom Financial Inc.	888 Villa Street #500	PROF	50		50
Steins Beer Garden	895 Villa Street	REST	200		200
Chez TJ	938 Villa Street	REST	200		200
Tied House	954 Villa Street	REST	200		200
Trans Video	990 Villa Street	PROF	50		50
Credit Sesame	607 W. Dana Street #A	PROF	50		50
Aratame School	607 W. Dana Street #B	PROF	50		50
Hair by Heinz	617 W. Dana Street	RETAIL	150		150
De Beauty Skin Care	619 W. Dana Street	RETAIL	150		150
Model Shoe Repair	621 W. Dana Street	RETAIL	150		150
Windows & Beyond	633 W. Dana Street	RETAIL	150		150
Sushi Tomi Japanese Restaurant	635 W. Dana Street	REST	200		200
Boletos Aereos Tax Service	660 W. Dana Street	PROF	50		50
Atkinson, Farasyn Attorneys at Law	660 W. Dana Street #3	PROF	50		50
TCM Acupuncture	676 W. Dana Street	PROF	50		50
Mathscore.com	688 W. Dana Street #1	PROF	50		50
Luxury Skin Care	692 W. Dana Street	RETAIL	150		150
Buen Viaje Travel	694 W. Dana Street	PROF	50		50
Baydin Inc.	694 W. Dana Street Ste. A	PROF	50		50
Community Care Ed. Services	694 W. Dana Street	PROF	50		50
Elegance Hair Salon	696 W. Dana Street	RETAIL	150		150
Shalala	698 W. Dana Street	REST	200		200
GTS Automotive	705 W. Dana Street	RETAIL	150		150

<u>BUSINESS NAME</u>	<u>STREET</u>	<u>TYPE</u>	<u>BID 1</u>	<u>BID2</u>	<u>TOTAL</u>
Downtown Smog Center	705 W. Dana Street Ste. C	RETAIL	150		150
Mt. View General Store	705 W. Dana Street Ste. A	RETAIL	150		150
Alberto's	736 W. Dana Street	REST	200		200
Niji Sushi	743 W. Dana Street	REST	200		200
Dana Street Roasting Co.	744 W. Dana Street	REST	200		200
Star Modern Furniture	747 W. Dana Street	RETAIL	150		150
E&W Natural Way	762 W. Dana Street	RETAIL	150		150
Nature Magic Acupuncture	762 W. Dana Street	PROF	50		50
Nancy Gee Attorney	774 W. Dana Street	PROF	50		50
Gee Realty	786 W. Dana Street	PROF	50		50
Cloudmeter	812 W. Dana Street	PROF	50	25	75
Essence Salon	826 W. Dana Street	RETAIL	150	75	225
Eyebrow Station	834 W. Dana Street	RETAIL	150	75	225
Founder Institute	838 W. Dana Street, Ste. A	PROF	50	25	75
Debra K. Hotter, CPA	838 W. Dana Street , Ste B	PROF	50	25	75
Optom Eyes	840 W. Dana Street	RETAIL	150	75	225
Fashion Code Beauty Salon	844 W. Dana Street	RETAIL	150	75	225
Los Charros	854 W. Dana Street	REST	200	125	325
Julie O's Hair & Nail	951 W. Dana Street	RETAIL	150	75	225
Yakko Restaurant	975 W. Dana Street	REST	200		200
Yang Yang Acupuncture	655 W. Evelyn Ave. #1	PROF	50		50
Set Solar	655 W. Evelyn Ave. #2	PROF	50		50
Tubular	655 W. Evelyn Ave. #3	PROF	50		50
Action Run	655 W. Evelyn Ave. #6	PROF	50		50
Ahorrando Juntos	655 W. Evelyn Ave. #8	PROF	50		50
Pacific Star Realty	655 W. Evelyn Ave. #9	PROF	50		50
Subway Sandwich	701 W. Evelyn Ave.	REST	200		200
Funspot	701 W. Evelyn Ave. a & b	PROF	50		50
Depot Garage	727 W. Evelyn Ave.	RETAIL	150		150
Landry & Bogan Theatre Consultants	733 W. Evelyn Ave.	PROF	50		50
Mtn. View Hair & Nail Parlor	745/747 W. Evelyn Ave.	RETAIL	150		150

<u>BUSINESS NAME</u>	<u>STREET</u>	<u>TYPE</u>	<u>BID 1</u>	<u>BID2</u>	<u>TOTAL</u>
AIO Medicine	867 W. Evelyn Ave.	PROF	50		50
<b>TOTAL</b>			<b>36850</b>	<b>11375</b>	<b>48225</b>



**DATE:** October 8, 2013

**CATEGORY:** Unfinished Business

**DEPT.:** Community Development

**TITLE:** **Prevailing Wage for Affordable Housing Developments**

## **RECOMMENDATION**

1. Discuss and provide direction on whether or not to adopt State prevailing wage standards on all future affordable housing development projects funded by the City of Mountain View.
2. Direct staff to work with the Planning Division to amend Section 36.90(c)(4) of the City Code to require the State prevailing wage for projects using Housing Impact Fees.

## **BACKGROUND**

The subject of requiring prevailing wages on affordable housing construction subsidized by the City of Mountain View has been raised by the City Council on several occasions. In May 2013, the City Council requested staff bring back more information on the subject at a future meeting. Staff has attempted to do that in this report and the Council is asked to provide direction on whether to require prevailing wages for construction workers on City-funded affordable housing projects.

Mountain View is a charter city and is not required to pay prevailing wages on City-funded projects at this time. As a policy, the City has voted to require prevailing wages on all public works projects. Currently, the City of Mountain View only requires the Federal prevailing wage on affordable housing projects if Federal funding, such as Community Development Block Grant (CDBG) or HOME, or if Housing Impact Fees are used to finance the development. In the case of the Housing Impact Fees collected on nonresidential developments, staff believes it makes more sense to require the State prevailing wage if Federal funding is not invested in the development. State wages are equivalent or higher and less burdensome than the Federal prevailing wage. Staff recommends this change and will work with the Planning Division to draft amendments to Section 36.90(c)(4) of the City Code to implement this change if Council

concur. The City Council will have an opportunity to review this change when the comprehensive City Code changes are brought to the City Council later this year. To date, no projects have been funded with the Housing Impact Fees.

The State of California and general law cities in California are required to pay prevailing wages on public works projects. Charter cities, such as the City of Mountain View, are currently exempt from paying prevailing wages on public works projects unless the charter city has self-imposed the requirement. Of the 15 Santa Clara County cities, 6 are charter cities qualifying for the prevailing wage exemption. Of these 6 cities, only the City of San Jose requires that a prevailing wage be paid on all City jobs regardless of funding source. The remaining 5 charter cities only require the prevailing wage be paid on public works projects or any project receiving Federal or State funding. The City of Mountain View has adopted a policy requiring State prevailing wages be paid on all "public works" projects as defined by the State Labor Code.

Whether affordable housing is subject to prevailing wage depends on the funding sources and local requirements. If the development were to receive State tax credits, it would be exempt from prevailing wages based on a California First District Court of Appeals ruling published in April 2008. The ruling was based on the fact that the tax credits do not have a tangible value at the time they are transferred from the State to the affordable developer and, therefore, do not constitute a transfer of State resources. However, if a local jurisdiction were to impose a prevailing wage requirement, the developer would be subject to paying the prevailing wage. If Federal resources, such as Community Development Block Grant (CDBG) or HOME funds, are allocated to an affordable development, then the Davis-Bacon Federal prevailing wage would apply instead.

## ANALYSIS

In government contracting, a prevailing wage is defined as the hourly wage, usual benefits, and overtime, paid to the majority of workers, laborers, and mechanics within a particular area. Prevailing wages are established by a regulatory agency for each trade and occupation employed in the performance of "public work." Public works projects are defined as any project that is funded with public funds. The original intent of prevailing wage laws was to prevent public construction projects from undermining a local construction industry.

As background, the State Department of Industrial Relations establishes the prevailing wage rate by looking at large labor markets, such as the San Francisco and Los Angeles areas. The prevailing wage for a particular trade or craft tends to be toward the higher end of the scale in the most expensive labor markets, like the Bay Area. Frequently,

residential developments are subject to the higher commercial prevailing wage rate if the development is four stories or higher due to State law.

There have been a variety of studies conducted by advocacy groups for and against prevailing wage requirements. A sampling of studies are cited below.<sup>1</sup> These studies provide a wide range of estimates on the impact on construction costs of prevailing wage—from 3 percent to an average increase of 21 percent. Because staff is not an authority on the subject of prevailing wage and studies vary, to get a better understanding of the impact, staff contacted BRIDGE Housing, a major nonprofit developer constructing affordable housing throughout California. BRIDGE Housing's Vice President, Tom Earley, stated that the cost increase due to prevailing wage averages about 10 percent. His figure is based on actual projects and direct experience and not from estimates or studies. This is consistent with ROEM's estimate for the Franklin Street Family Apartments, shown in the table below, which compares the prevailing and nonprevailing wage budgets for the recently constructed Franklin Street Family Apartments. In this case, a prevailing wage increased the project cost by 10 percent.

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<sup>1</sup> Magalia, Noshing, *Prevailing Wages and Government Contracting Costs: A Review of the Research*, Economic Policy Institute, 2008—Shows that prevailing wage regulations have no effect on the cost of government-contracted public works projects.

The Fiscal Policy Institute, *The Economic Development Benefits of Prevailing Wage*, May, 2006—Shows that prevailing wage in construction means more cost-effective construction and better-paid workers.

Citizens Housing and Planning Council, *Prevailing Wisdom, the Potential Impact of Prevailing Wages on Affordable Housing*, December 2008—Shows imposing prevailing wages on the affordable housing industry reduces the affordability of subsidized housing.

Cornell University ILR School, *The Effects of Prevailing Wage Requirements on the Cost of Low-Income Housing*, October 2005—Shows prevailing wages increase costs in affordable housing developments by an average of 21 percent.

**ROEM FRANKLIN STREET FAMILY APARTMENTS COMPARISON**

	<b>Nonprevailing Wage</b>	<b>Prevailing Wage</b>
Investor Capital (tax credit proceeds)	\$10,684,249	\$11,814,267
Conventional Loan	2,759,895	2,758,569
City Loan	8,172,000	9,222,000
Accrued Interest on City Loan	652,289	724,932
Lease-Up Income	137,712	137,645
Deferred Developer Fee	<u>601,693</u>	<u>601,824</u>
	<u>\$23,007,838</u>	<u>\$25,259,237</u>

If the City Council chooses to adopt a prevailing wage policy requiring the payment of the State prevailing wage for affordable housing developments, the developer and general contractor would be responsible for implementing the requirement when they issue bid requests for the development. The City would be responsible for monitoring and making sure the correct bidding procedures have been implemented and that the prevailing wage has been paid.

Ultimately, whether or not to pay prevailing wage is a policy issue and value judgment. It could be argued that paying a higher wage to construction workers gives them wages that are more likely to enable them to afford housing in the area. On the other hand, not paying prevailing wage would allow the City to fund additional affordable units in Mountain View.

**FISCAL IMPACT**

Adoption of a prevailing wage for all affordable housing projects would not impact the City’s General Fund. A portion of the increase in construction costs would be paid for with the City’s affordable housing funds. How much depends on the project size and funding proportions. As shown with the Franklin Street Family Apartments example above, this could add \$1.05 million in City subsidy to a project for 51 units (about \$21,000 per unit). In addition to the increase in the City subsidy, the City might need to hire a labor compliance firm to conduct on-site monitoring ensuring compliance with prevailing wage laws. The increased per-development cost will eventually result in fewer units and/or projects being funded.

## **ALTERNATIVES**

1. Adopt the attached resolution requiring prevailing wage for all future affordable housing projects receiving City funds.
2. Take no action on prevailing wages for affordable housing developments.
3. Require prevailing wage only in certain circumstances (projects over/under a specified cost or unit count).
4. Provide other direction to staff.

## **PUBLIC NOTICING**

The meeting agenda and Council report have been posted on the City's website and announced on Channel 26 cable television. Interested parties have also been sent a copy of the agenda and staff report.

Prepared by:

Vera Gil  
Project Manager – Affordable Housing

Reviewed by:

Linda Lauzze  
Administrative and Neighborhood  
Services Manager

Approved by:

Randal Tsuda  
Community Development Director

Daniel H. Rich  
City Manager

VG/7/CAM  
894-10-08-13CR-E

- Attachments:
1. Resolution
  2. [May 7, 2013 Staff Report on Prevailing Wages for Public Works Projects](#)

CITY OF MOUNTAIN VIEW  
RESOLUTION NO.  
SERIES 2013

A RESOLUTION ADOPTING STATE OF CALIFORNIA PREVAILING WAGE  
RATES FOR JOB CLASSIFICATIONS UTILIZED ON CONSTRUCTION  
OF ALL AFFORDABLE HOUSING DEVELOPMENTS

WHEREAS, California adopted a prevailing wage law in 1931 to require contractors and subcontractors on public projects to pay construction workers wages at least equal to the wages prevailing in local labor markets; and

WHEREAS, the prevailing wage law serves important public purposes, including protecting workers from exploitation, allowing union contractors and nonunion contractors to bid for public work on a level playing field, protecting the wage base in local labor markets, providing opportunities for training skilled workers, attracting the most skilled workers to public projects, and avoiding the strain on public resources that occurs when workers are not provided health and pension benefits; and

WHEREAS, the City of Mountain View only requires the payment of a prevailing wage on affordable housing developments funded with housing impact fees or when required by outside funding source;

NOW, THEREFORE, BE IT RESOLVED that the City of Mountain View shall require the payment of State prevailing wages on all affordable housing developments funded by the City of Mountain View. Furthermore, the City shall pay Federal prevailing wages if required by other funding sources.

BE IT FURTHER RESOLVED that this Resolution shall be effective 60 days from adoption, on December 7, 2013.

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VG/7/RESO  
894-10-08-13Res-E



**DATE:** October 8, 2013

**CATEGORY:** New Business

**DEPT.:** City Manager's Office

**TITLE:** **Proposed Migration to CalPERS Health Program for Sworn Employees**

### **RECOMMENDATION**

Accept report on proposed migration to the California Public Employees Retirement System (CalPERS) Health Program for sworn employees and retirees of the City of Mountain View (City) and direct staff to execute side letter and prepare enabling resolutions for Council consideration.

### **BACKGROUND**

The City of Mountain View currently contracts for health insurance benefits for active and retired employees. Benefit levels and cost sharing are generally negotiated between the City and employee bargaining units, and have changed over time as health-care costs have increased significantly. Eligible employees have access to health benefits in retirement through the City's Retirees' Health Program.

In negotiating new labor contracts in 2012, the City agreed to study changes to health benefits for sworn Fire and Police employees with the intent of allowing these employees to join the CalPERS health benefit program administered under the Public Employees Medical Hospital Care Act (PEMHCA) if the study determined the transition to be cost-effective based on an analysis of short-term and long-term City costs. The study was conducted jointly between the Mountain View Professional Firefighters Local 1965 (MVFF) and the City of Mountain View by a labor management committee (Committee) which hired an actuarial consultant, Bickmore, to advise the Committee.

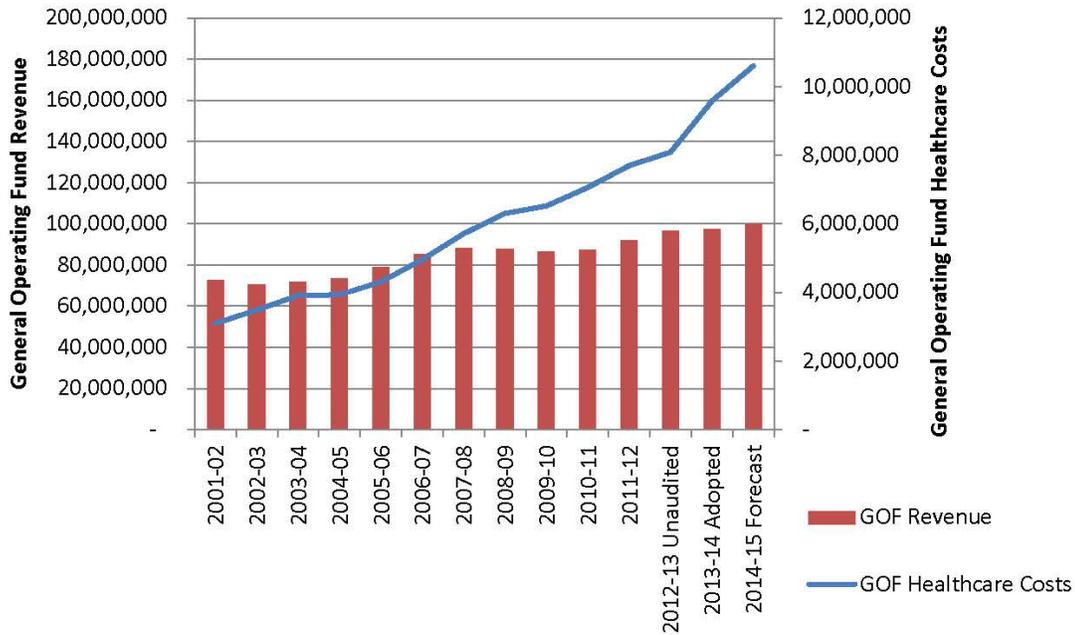
The Committee has completed a comprehensive study and believes that it is financially feasible for sworn Fire employees, or sworn Police and Fire employees, to move to PEMHCA under specific circumstances described further in this report. A notable aspect of the proposed migration is that employees would continue to pay 1.2 percent of their salary toward the City's Retirees' Health Trust to help offset costs for retiree

health benefits. This approach was suggested by MVFF and is analogous to employees' contributions toward pension benefits.

The City previously studied a migration to PEMHCA in 2009. Two key assumptions used in that study varied from the current study. In particular, the 2009 study assumed all employees—not solely sworn employees—would migrate to CalPERS, and did not include an employee contribution toward the retirees' health benefit. Both of these factors are important components of the assessment of the financial impact of migration to the CalPERS health benefit program.

First, the City would have incurred greater retirees' health obligations if all employees had migrated to PEMHCA. This is because CalPERS has a shorter vesting period for receiving retirees' health benefits and, while sworn employees often stay with one public agency for much of their career, this is less common for nonsafety employees. As a result, the City would have had to extend retirees' health benefits to far more individuals who did not meet the City's retirees' health benefit requirements but would be eligible for benefits under CalPERS law. A second financial impact associated with the migration is that sworn Police and Fire employees in PEMHCA can participate in a health plan offered through the Peace Officers Research Association of California (PORAC), which has lower premiums for active employees than the plans available to nonsworn active employees. Since this plan is not available to nonsworn employees, the costs associated with premiums are higher for nonsworn employees. Finally, the employee contribution of 1.2 percent of salary toward the City's retirees' health cost is an essential offset to increased City costs. No employee contribution was contemplated in 2009.

Health insurance benefits are an important part of a competitive compensation package for City employees, and also are increasingly expensive. Over the last 12 years, direct City costs for health benefits have increased approximately 220 percent, from \$3 million in Fiscal Year 2001-02 to an expected \$9.6 million for Fiscal Year 2013-14. As noted in the graph below, City revenue growth has not matched that pace.



For several years, the City and employee organizations have worked to address these cost increases by modifying benefit levels for active employees and for retirees, and by offering new benefit options, such as a portable defined contribution retirees’ health program for nonsworn employees, and a high-deductible health plan. Containing health benefit costs is likely to remain an important objective for the City for the foreseeable future.

**ANALYSIS**

*Key Elements of CalPERS and City of Mountain View Health Benefits Programs*

CalPERS is the third largest purchaser of health care in the nation, providing benefits to more than 1.3 million public employees, retirees, and their families. The program covers State employees by law and local public agencies and school employers can contract to have CalPERS provide these benefits to their employees. With the exception of the City of San Jose, which is not affiliated with CalPERS, all other cities in Santa Clara County, except for Mountain View, contract with CalPERS for health benefits. Health plans offered, covered benefits, monthly rates, and copayments are determined by the CalPERS Board, which reviews health plan contracts annually. Plans offered and monthly premiums vary across the State. Currently, CalPERS offers 10 plans in the Bay Area region: six are Health Maintenance Organization (HMO) plans and four are Preferred Provider Organization (PPO) plans.

The City offers four health plans to employees: two HMO plans through Kaiser and Health Net, a PPO plan through Health Net, and a Point of Service plan through Health Net which is now closed to new enrollees. There are differences in the designs offered by the City and by CalPERS, and also differences in the monthly premium costs. CalPERS has many plans with lower insurance premiums than the City plans. Additionally, there are differences between retirees' health benefits provided by the City and by CalPERS. Most notably, CalPERS has a shorter vesting period for retirees' health benefits, and, as analyzed in this study, employees would receive an employer contribution toward benefits for qualified retirees' dependents.

MVFF broached the prospect of moving sworn employees to the CalPERS system (commonly referred to as PEMHCA, referring to the legislation establishing the system) believing that CalPERS' lower premium costs, combined with the 1.2 percent salary contribution by active employees, could provide enough savings to enable an employer contribution to dependent coverage in retirement and cover the cost of retirees who were not eligible for the City retirees' health program but would be eligible for CalPERS health in retirement.

#### *Affected Individuals*

A migration to PEMHCA would impact individuals beyond the MVFF and Police Officers Association (POA) membership. Under CalPERS requirements, migration by MVFF employees would mean that unrepresented sworn Fire professionals and managers and retirees would also be required to migrate to PEMHCA. Similarly, migration by POA employees would mean that unrepresented sworn Police professionals and managers and retirees would also be required to migrate to PEMHCA. Sworn employees are defined under State law and serve in the following City of Mountain View job classifications:

- Firefighter
- Firefighter/Paramedic
- Firefighter – Hazardous Materials
- Fire Engineer
- Firefighter/Paramedic – Hazardous Materials
- Fire Engineer/Paramedic
- Fire Engineer – Hazardous Materials
- Fire Captain
- Fire Captain – Hazardous Materials
- Deputy Fire Marshal (sworn)
- Hazardous Materials Specialist – Safety
- Battalion Chief

Deputy Fire Chief  
 Fire Chief  
 Police Officer  
 Police Sergeant  
 Police Lieutenant  
 Police Captain  
 Assistant City Manager for Public Safety/Police Chief

The MVFF and POA membership will decide independently on whether to migrate to PEMHCA, although, as discussed below, as modeled in the study it is financially feasible only for both sworn Fire and Police employees and retirees to move to CalPERS health program, or for sworn Fire employees and retirees only to move to CalPERS health program. It is not financially feasible for only sworn Police employees and retirees to move to PEMHCA. The number of active and retired individuals who would be affected by this change are noted below.

<b>Group</b>	<b>Fire</b>	<b>Police</b>	<b>Total</b>
Active Employees	73	95	168
Sworn Retirees Participating in the City Retiree Health Program	57	62	119
Retirees Ineligible for City Health Benefits but Eligible for CalPERS Health Benefits	13	16	29
<b>TOTAL</b>	<b>143</b>	<b>173</b>	<b>316</b>

Under State law, should the migration to CalPERS be approved by MVFF or MVFF and POA, represented and unrepresented sworn employees and retirees would not have the option to continue on the City’s health plans but would be offered the ability to join CalPERS plans.

*Process for Joining PEMHCA and Employer Contribution to Benefits*

For sworn Fire, or sworn Police and Fire employees to migrate to PEMHCA, the City Council would approve a resolution to enter into a contract with CalPERS. The contract would set the terms of employer contributions to health premiums for active employees and retirees. These terms would also be set in the Memorandum of Understanding (MOU) or resolution for affected employees. As modeled in the study and developed in the proposed side letter with MVFF, the City would provide an equal employer contribution for active employees and retirees and would provide contributions to

premiums that are similar to contribution levels currently provided. The employer contribution could be changed in the future but would be subject to negotiation with the affected bargaining group. CalPERS would administer the benefits program to employees and retirees.

#### *Response from Employees*

Extensive outreach regarding the potential migration to CalPERS health program has been conducted with MVFF leadership and with affected sworn Fire employees and retirees. The City has provided the study results, summary and detailed health plan information, analysis of employee premium contributions under the City health plans and CalPERS health plans, and the terms of the proposed migration in packets mailed to employees, in a webcast, on the City Intranet, and in meetings. On September 21, 2013, the MVFF membership endorsed the proposed migration to PEMHCA as developed in the study and described here and in a draft side letter to the Memorandum of Understanding with MVFF.

The City is also engaging with POA leadership, with formal meetings to commence October 10, 2013. POA leadership and sworn managers have been provided the same background information provided to sworn Fire employees, but POA leadership have not been involved in the study process and so are considering the potential migration on a different time line. A vote by POA membership may follow discussions with POA leadership, but a date has not yet been set.

#### *Key Terms for Side Letter*

A draft side letter with MVFF governing health benefits has been discussed with MVFF and can be found in Attachment 1. These terms establish an ongoing contribution by employees of 1.2 percent of their salary towards the City's Retirees' Health Trust, the level of employer contributions to health benefit premiums, and provide for a study in 2015 to assess the financial impact of the migration. The study in 2015 is intended to test the accuracy of the many assumptions made in the current study, and determine whether the City experienced additional costs associated solely with migration to PEMHCA instead of the savings projected. Should the City experience costs in Fiscal Year 2013-14 and/or Fiscal Year 2014-2015 related solely to the migration to PEMHCA, MVFF has agreed that employees would repay increased costs experienced. It is important to note that health costs could increase for other reasons, such as regional price increases. Such increases would not trigger repayment by employees. It will be increasingly difficult over time to sort out whether future health benefit cost increases are related solely to PEMHCA migration, but should future costs escalate at an

unsustainable level, the City retains the ability to negotiate certain changes, as is the case with the City's current health benefits program.

### FISCAL IMPACT

To assess the financial impact of the potential migration to PEMHCA, the study analyzed the future cost of benefits to be provided to active employees and retirees, and then assessed the annual contribution toward that obligation in light of other components of annual health benefit expenses. Described in detail below, the fundamental assessment of the net impact of the potential migration to PEMHCA is as follows:

- + Higher Long-Term Retiree Health Costs
- + Higher Premiums for City Plans
- Lower City Costs for PEMHCA Premiums
- Employee Contribution Toward Retirees' Health Trust
- = Net City savings

#### *Higher Long-Term Retiree Health Costs*

The first step in the study was to assess the current value of benefits provided to active employees, current retirees, and future retirees. The Committee jointly hired an actuarial firm, Bickmore, to conduct this study, which can be found in Attachment 2. The actuarial analysis made many economic and demographic assumptions such as expected health-care cost increases over time; the discount rate used to calculate the present value of future benefits; the likelihood that employees and retirees would choose certain health plans, which in turn affected City costs; the level of dependent coverage; employees' age at retirement; and rates of mortality. All of the assumptions are described in detail in the Bickmore report, which projects costs over a 20-year time frame. This analysis determined that moving to the CalPERS health plan would increase the present value of future benefits, as illustrated in the table below.

Many of the assumptions used in the study are recommended by CalPERS based on State-wide data. In the case of annual increases in health-care premiums, however, CalPERS establishes a range within which increases may be projected. The study included two sets of assumptions regarding health premium cost increases over time, which are denoted by the columns labeled "Bickmore" and "Nicolay." The column

names refer to the actuarial firms conducting the studies: Bickmore was hired by the Committee studying the possible migration to PEMHCA, and Nicolay is the firm employed by the City in recent years to conduct biennial valuations of the City’s retirees’ health program.

The column labeled Bickmore assumes a higher initial rate – but lower ultimate rate – of annual premium increases under PEMHCA, and is based on the premise that a large plan such as PEMHCA is likely to have more success, over the long term, with moderating cost increases than a small plan such as that administered by the City. The column labeled Nicolay uses the same health trend as is being used for the current City Retirees’ Health Plan, and has a lower initial rate, and higher final rate, of annual increases.

Because the actual rate of health premium increases can make a substantial difference in the ultimate financial feasibility of the migration to PEMHCA, the Committee decided to include both trend assumptions in the financial analysis to illustrate a range of possible outcomes.

	<b>City of Mountain View Current Retiree Health Plan</b>	<b>PEMHCA Health Cost Bickmore</b>	<b>PEMHCA Health Cost Nicolay</b>
MVFF and Sworn Fire Managers	\$15,962,506	\$16,719,579	\$17,012,817
POA and Sworn Police Managers	\$18,945,067	\$22,715,434	\$23,283,487
Total, all Sworn Employees	\$34,907,573	\$39,435,013	\$40,296,304
<i>Difference</i>		<b>\$ 4,527,440</b>	<b>\$ 5,388,731</b>
<i>Source: Appendix 2 Bickmore Report</i>			

The value of future benefits determines an annual contribution required to fund future benefits, the Annual Required Contribution (ARC). The ARC under PEMHCA would be higher than the ARC under the City’s Retirees’ Health Plan because of greater benefit levels (namely dependent coverage) in retirement and because additional retirees would become eligible for benefits under CalPERS who were not eligible for benefits under the City’s retirees’ health program.

### *Higher Premiums for City Plans*

A second component of the financial analysis is the City's costs for premiums under the City's health program for other employees. Based on feedback from the City's current health plans, the City could experience higher premiums because fewer individuals would be insured through the City's plans, increasing the risk to the insurers. Kaiser estimated that this could increase premium costs by 6.5 percent if MVFF alone were to migrate to PEMHCA, and by 7 percent to 12 percent if both POA and MVFF migrate to PEMHCA. Health Net estimated that premiums could decrease by 0.11 percent if MVFF alone were to migrate to PEMHCA, and would increase by 1.24 percent if both POA and MVFF migrate to PEMHCA.

Additionally, the City would have a relatively small new cost to provide vision coverage for active sworn employees who currently receive vision benefits through Kaiser, as the City's Kaiser plan currently provides vision coverage but CalPERS plans do not provide vision coverage. City employees enrolled in Health Net plans already participate in a separate vision plan, and so the net impact is only for employees currently in Kaiser.

### *Lower City Costs for PEMHCA Premiums*

The third component of the financial analysis is the City's costs for premiums under PEMHCA. Because CalPERS offers many plans with a lower monthly premium than City health plans, and because the City pays the majority of premium costs, the analysis anticipates significantly lower City costs for those migrating to PEMHCA.

### *Employee Contribution Toward Retirees' Health Trust*

The final component of the financial analysis is the value of ongoing contributions by employees of 1.2 percent of their salary toward the City's Retirees' Health Trust. As contemplated in the original MVFF proposal, included in this study and provided for in the draft side letter with MVFF, this would be an ongoing contribution by employees which would not sunset.

**Bringing all of these components together, as illustrated in the table below, the net annual financial impact of all sworn employees migrating to PEMHCA is estimated to save the City \$225,000 to \$457,000.**

### Net Annual Financial Impact of All Sworn Employees Migrating to PEMHCA

		PEMHCA Health Cost Bickmore	PEMHCA Health Cost Nicolay
Increase in Annual Required Contribution		\$394,304	\$ 466,154
Savings in City-Paid Health Premiums Active Sworn Employees (Budgeted for FY 2012-13)		\$(852,899)	\$(852,899)
Estimated Increase in City Premiums Associated with Smaller Group Insured	Low 7%	\$269,665	\$ 69,665
	High 12%	\$429,777	\$ 429,777
1.2% OPEB Contribution ( <i>Note: amount listed is based on FY 2012-13 salaries and illustrates both Police and Fire contribution; Police contribution began FY 2013-14</i> )		\$( <u>267,929</u> )	\$( <u>267,929</u> )
<b>Total Annual City Cost (Savings) for Employees and Retirees Health Insurance</b>	Low	\$( <u>456,859</u> )	\$( <u>385,009</u> )
	High	\$( <u>296,747</u> )	\$( <u>224,897</u> )

Because MVFF and POA are deciding independently whether to go to PEMHCA, the study also modeled the financial impact on the City if only MVFF or only the POA migrated to PEMHCA. The calculations are provided in Attachment 3. The analysis concluded that if only MVFF migrates, the annual savings would be \$177,000 to \$202,000. If only POA migrates, the City would incur a net cost increase of \$23,000 to \$70,000 annually. The primary reason is because, on a State-wide basis, sworn Police are more likely to retire at age 50 than sworn Fire employees and, therefore, retiree benefits continue for a longer period of time and are more costly.

It is important to understand that the study was conducted by a professional actuarial firm and is based on reasonable and carefully considered assumptions, but should be seen as a best estimate based on today's knowledge. The study projects decisions employees and retirees will make in selecting health plans and covering dependents. Additionally, actuarial assumptions can and do change: for example, CalPERS has recently offered three different asset allocation strategies with three different investment returns for agencies participating in the CalPERS-administered Retirees' Health Trust, as Mountain View does. Using a lower investment return assumption will increase the cost of benefits. Similarly, longer life expectancies have changed mortality assumptions over time. The agreement with MVFF to study in 2015 whether the savings projected in the study actually materialize, and for employees to repay any cost associated with migration, is an important protection for the City. At the same time, increased costs unrelated to migration to PEMHCA (such as a change in asset

allocation strategies) would not be an automatic obligation of employees and would have to be negotiated, as is the case now.

### *Cost of Future Employees*

The comprehensive actuarial study focused on current employees and retirees. The consultant calculated net costs associated with employees hired in the future. While the net impact will vary by the age of the employee at the time of hire and the plan they select, for an employee hired at age 30 (the average age at hire for sworn employees over the past 10 years), as shown in Table 6 of the Bickmore report, the City's premium savings are projected to more than offset the increased retiree health cost for future employees.

## **CONCLUSION**

As provided in current labor agreements with MVFF and POA, the City and MVFF have jointly studied the potential migration of sworn Fire and Police employees to the CalPERS health benefit program. The study has determined that the transition would be financially feasible for sworn Fire employees, or sworn Police and Fire employees, to move to PEMHCA under the assumptions included in the study and the terms established in the draft side letter to the MVFF MOU. These terms establish an ongoing contribution by employees of 1.2 percent of their salary towards the Retirees' Health Trust, the level of employer contributions to health benefit premiums, provide for a study in 2015 to assess the financial impact of the migration, and obligate employees to repay costs incurred solely as a result of migration.

Based on the study results, under the terms of the contracts with MVFF and POA, both POA and MVFF may elect to move to PEMHCA together, or MVFF alone may migrate to PEMHCA. MVFF has elected to migrate to PEMHCA effective March 1, 2014. Upon execution of the side letter governing health benefits, staff will return with resolutions enabling sworn Fire employees and retirees to join PEMHCA. The expected effective date is March 1, 2014, following a transition period between the City and CalPERS and open enrollment period for affected individuals.

Staff is discussing the proposed migration with the POA as well. If the POA decides by November 15, 2013 to move to PEMHCA, sworn Police employees and retirees could migrate at the same time as MVFF (March 1, 2014). If they decide by December 20, 2013, sworn Police employees and retirees could migrate to PEMHCA effective January 2015. In either of these situations, staff will return to the City Council to approve enabling resolutions. A final alternative is for the POA to decline to join PEMHCA.

**ALTERNATIVES** – Direct staff to provide additional information.

**PUBLIC NOTICING** – Agenda posting.

Prepared by:

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Approved by:

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MSD-PJK/7/CAM  
602-10-08-13CR-E

- Attachments:
1. Draft Side Letter with MVFF Local 1965 Regarding Health Benefits
  2. August 26, 2013 Bickmore Report: Proposal to Join the CalPERS Medical Program Analysis of the Retiree Medical Cost for Sworn Safety Employees
  3. Financial Impact for Sworn Fire and Sworn Police Migration to CalPERS Health

**Draft MVFF Side Letter Regarding Migration to CalPERS Health Program (PEMHCA)  
October 2, 2013**

Note: The following language replaces Section 6.00 of the Fiscal Year 2012-15 MVFF MOU, which addresses insurance benefits.

**6.00 INSURANCE**

**6.01 Medical**

**6.01.1 Transition to PEMHCA**

Following a study jointly conducted by the MVFF and City of Mountain View (City), the parties have agreed that all represented sworn members will migrate to the CalPERS health system provided under the Public Employees Medical and Hospital Care Act ("PEMHCA") (Government Code Section 22750, *et seq.*). This migration will apply to unrepresented sworn Fire employees and retired sworn Fire employees as well. The anticipated migration date is March 2014.

All represented sworn members will be covered by an equal contribution resolution which will apply to current and future represented sworn members, unrepresented sworn Fire personnel, and retired sworn Fire personnel.

**6.01.2 Cost Sharing**

The migration to PEMHCA is the result of an extensive study jointly conducted by MVFF and the City between July 2012 and September 2013. The study made numerous assumptions, as identified in the August 26, 2013 final Bickmore report and the Assessment of Total Financial Impact of Migrating Active and Retired Sworn Employees to PEMHCA, dated September 6, 2013. Based on these assumptions and the ongoing contribution of 1.2 percent of salary toward the Retirees' Health Trust (see Section 6.03 below), MVFF and the City expect that the migration to PEMHCA alone will not increase overall costs to the City in the short or long term, compared to continuation of medical benefits through City-contracted insurance, and may provide net savings to the City. The net impact to the City was calculated in the study by considering the Annual Required Contribution (ARC) for retirees' health

benefits for sworn employees; City costs for health premiums for active sworn employees; estimated new City costs for health premiums related solely to having a smaller group of insured individuals; City costs for vision for active sworn employees in Kaiser; and the value of sworn employee contributions toward the Retirees' Health Trust. These same factors will be used to determine the net impact of migration to PEMHCA as further discussed in Section 6.01.3.

#### 6.01.3 Reconciliation of Anticipated Savings to Actual Experience Following Migration

In Fiscal Year 2015-16, the City will evaluate whether the net savings anticipated in the Fiscal Year 2012-13 study have been realized. This study will use the same financial factors as identified in Section 6.01.2. If a net savings was not realized and instead net costs increased, this study will isolate the source of the increased costs to determine whether the migration to PEMHCA was a factor. In order to maintain consistency between the 2013 and 2015 studies, the City and MVFF agree it would be ideal for the 2015 study to be conducted by Bickmore, the firm which provided actuarial and consulting services for the 2013 study. The City will attempt to engage Bickmore for the 2015 study. Should Bickmore no longer be in business or unable to conduct the study, the City retains the right to choose the actuarial firm to conduct the 2015 study and, in that situation, would direct the firm to use the actuarial assumptions used in the 2013 study and further described below.

Based on the City's experience at the time of the study and advice of the consultant jointly hired by the City and MVFF, the Fiscal Year 2012-13 study made numerous assumptions in three main areas; key examples are provided here for illustration with the comprehensive list of assumptions provided in the study documents:

- The initial migration to PEMHCA (such as the health plans selected by employees and retirees, the level of dependent coverage, and enrollment by retirees eligible for health coverage under PEMHCA but not eligible for the City Retiree Health Program);
- The impact to City health plan premiums associated with having a smaller number of insured individuals, City costs for

vision for active sworn employees in Kaiser, and the value of sworn employee contributions toward the Retirees' Health Trust; and

- Actuarial assumptions to project events and costs over time, as reflected in the ARC (Discount Rate, Mortality Rates, Termination Rates, Service Retirement Rates, Disability Retirement Rates, Medicare Eligibility, Healthcare Trend, Participation Rates, Spouse Coverage, Dependent Coverage).

For the purpose of determining whether the City incurred net increased costs as a result of the migration to PEMHCA rather than obtaining net savings, the Fiscal Year 2015-16 study will compare the actual experience in migrating to PEMHCA to the assumptions made in the Fiscal Year 2012-13 study as follows:

- It will determine whether the initial migration to PEMHCA occurred as expected, specifically the health plans selected by employees and retirees, the level of dependent coverage, and enrollment by retirees eligible for health coverage under PEMHCA but not eligible for the City Retiree Health Program);
- It will clearly demonstrate the extent to which City health plan premiums changed solely as a result of having a smaller number of insured individuals, actual City costs for vision for active sworn employees in Kaiser, and the value of sworn employee contributions toward the Retirees' Health Trust; and
- It will determine whether the ARC changed as expected in the Fiscal Year 2012-13 study, by conducting a retiree health valuation as of July 1, 2015. It is understood that retiree health valuations conducted by the City in the future may use different actuarial assumptions than used in the Fiscal Year 2012-13 study based on the City's actual experience following migration, but for the purposes of the Fiscal Year 2015-16 study to assess the impact of migrating to PEMHCA, the same numerical actuarial assumptions related to Discount Rate, Mortality Rates, Termination Rates, Service Retirement Rates, Disability Retirement Rates, Medicare Eligibility, Healthcare Trend, Participation Rates, Spouse Coverage, and Dependent Coverage will be used as were used in the Fiscal Year 2012-13 study. The Fiscal Year 2015-16 study will also exclude the

implicit subsidy liability, as was the case in the Fiscal Year 2012-13 study.

If both sworn Police and Fire employees migrate to PEMHCA, the study will identify the results for the two employee groups separately; if only sworn Fire employees migrate to PEMHCA, the study will only assess results for sworn Fire employees. Any costs associated with this evaluation will be borne solely by the City.

MVFF and the City further agree that if the Fiscal Year 2015-16 study illustrates that the migration to PEMHCA resulted in higher net costs to the City in calendar years 2014 and/or 2015, rather than net savings, the parties will meet and confer over ways to pay for the higher costs. MVFF and the City agree to meet as quickly as possible to resolve this issue. If, within 60 days of the Fiscal Year 2015-16 study results being provided to MVFF, the parties are not able to agree on a method to pay for the increased costs in calendar years 2014 and/or 2015, the represented sworn members' 1.2 percent salary contribution toward the Retirees' Health Trust will increase up to a maximum of 2 percent in order to pay the cost over a five-year period, an approach to cost repayment which may be subsequently modified by mutual agreement between MVFF and the City. Unrepresented sworn managers would have the same obligation to repay costs experienced by the City in calendar years 2014 and/or 2015.

#### 6.01.4 City Contributions Towards Medical Premiums

Following migration to PEMHCA, initial City contributions for medical insurance premiums are established as follows:

- *For single-level coverage:* The City will pay the full premium for single coverage for full-time regular employees and eligible retirees for any plan, up to, but not exceeding, the single-coverage premium for the "Maximum" plan. The employee or retiree will pay the additional cost of any plan which has a higher monthly cost than the Maximum plan.
- *Dependent-level coverage:* The City will pay 92 percent of the total premium for the employee and his or her dependents, up to, but not exceeding, 92 percent of the two-party or family premium for the Maximum plan, respectively. The employee or retiree will pay the remaining premium, which will be at

least 8 percent of the two-party or family premium; more if the plan selected has a higher premium than the Maximum plan.

- The “Maximum plan” for active employees and pre-Medicare retirees will be the plan with the third-highest Bay Area Region Basic plan rates (Kaiser in 2014). For Medicare-eligible retirees, the “Maximum plan” will be the average of all Bay Area Region “Supplement to Medicare” or “Combination” rates, depending on the plan selected by the retiree.

**Active employees, active employees and their dependents, and retirees not eligible for Medicare participate in PEMHCA “Basic” Plans:**

<b>Party Rate</b>	<b>Enrollment</b>	<b>Employer Contribution</b>
Basic Party Rate 1 – Single	Active or Retiree in Basic	Up to 100% of Third-Highest Bay Area Region Basic Premium
Basic Party Rate 2 – Two-Party	Active or Retiree in Basic, 1 Dependent	Up to 92% of Third-Highest Bay Area Region Two-Party Basic Premium
Basic Party Rate 3 – Family	Active or Retiree in Basic, 1+ Dependents	Up to 92% of Third-Highest Bay Area Region Family Basic Premium

**Retirees who are Medicare eligible and their dependents who are Medicare eligible participate in PEMHCA “Supplement to Medicare” (SM) Plans:**

<b>Party Rate</b>	<b>Enrollment</b>	<b>Employer Contribution</b>
Supplemental Party Rate 4	Retiree in SM	Up to 100% of the Average of All Bay Area Region Supplement to Medicare Premiums
Supplemental Party Rate 5	Retiree in SM, and 1 Dependent in SM	Up to 92% of the Average of All Bay Area Region Supplement to Medicare Premiums
Supplemental Party Rate 6	Retiree in SM, and 1+ Dependent in SM	Up to 92% of the Average of All Bay Area Region Supplement to Medicare Premiums

**Retirees who are Medicare eligible and who have Dependents who are in Basic plans participate in the following PEMHCA “Combination” Plans:**

<b>Party Rate</b>	<b>Enrollment</b>	<b>Employer Contribution</b>
Combination Rate 7	Retiree in SM, and 1 Dependent in Basic	Up to 92% of the Average of All Bay Area Region Combination Rate 7 Premiums
Combination Rate 8	Retiree in SM, and 2+ Dependent in Basic	Up to 92% of the Average of All Bay Area Region Combination Rate 8 Premiums
Combination Rate 9	Retiree in SM, 1 Dependent in SM, and 1+ Dependent in Basic	Up to 92% of the Average of All Bay Area Region Combination Rate 9 Premiums

**Retirees who are in Basic plans and who have Dependents who are in SM plans participate in the following PEMHCA “Combination” Plans:**

<b>Party Rate</b>	<b>Enrollment</b>	<b>Employer Contribution</b>
Combination Rate 10	Retiree in Basic, and 1 Dep in SM	Up to 92% of the Average of All Bay Area Region Combination Rate 10 Premiums
Combination Rate 11	Retiree in Basic, and 2+ Dep in SM	Up to 92% of the Average of All Bay Area Region Combination Rate 11 Premiums
Combination Rate 12	Retiree in Basic, 1 Dep in Basic, and 1+ Dep in SM	Up to 92% of the Average of All Bay Area Region Combination Rate 12 Premiums

6.01.5 PORAC Membership Fee

The parties agree that represented sworn members who choose health insurance plans offered by PORAC through CalPERS will pay the membership fee associated with PORAC plans, and that the City will not pay PORAC membership fees.

6.02 Dental

Effective the first pay period ending July 2007, employees will contribute 12 percent of the portion of premium for dental benefits attributable to dependent coverage. The City will pay 100 percent of the employee-only premium.

Contact the Human Resources Division for current dental premium rates.

6.03 Retirees’ Medical

With the migration to PEMHCA, all represented sworn members, unrepresented sworn Fire personnel, and sworn Fire retirees who meet the requirements established by PEMHCA will be eligible to receive retirees’ health benefits provided under PEMHCA and will no longer be eligible to receive retirees’ health benefits under the City’s Retirees’ Health Insurance Program. Any represented sworn members, unrepresented sworn Fire personnel, and sworn Fire retirees who do not meet the

requirements established by PEMHCA will not be eligible to receive benefits under the City's Retirees' Health Insurance Program.

Members will have the option of participating in the Retirement Health Savings Account without any employer contributions subject to subsequent requirements and restrictions in IRS rulings, regulations, and opinions.

In consideration for allowing represented sworn members to migrate to PEMHCA, beginning with the first pay period in Fiscal Year 2012-13, all represented and unrepresented sworn members shall contribute 1.2 percent of salary toward the retiree health cost share. Should sworn POA members and sworn Police employees also migrate to PEMHCA, they too shall contribute 1.2 percent of salary toward the City's Retirees' Health Trust. If the migration to PEMHCA is successful, and for as long as all sworn members remain with PEMHCA, all members shall continue contributing 1.2 percent of salary, on an ongoing basis, toward the City's Retirees' Health Trust to pay for or smooth future cost increases related to retirees' health. The Retirees' Health Trust will be administered by CalPERS. This contribution will be accomplished through a salary deduction and the City will make the deduction on a pretax basis to the extent permitted under State and Federal law. The City makes no representation as to the taxable nature of this deduction. The City and each employee shall retain liability for their respective tax obligations. The 1.2 percent retiree health contribution is in addition to the CalPERS pension cost share addressed in Section 7.01. The 1.2 percent retiree health contribution is an ongoing contribution separate from any increased contribution which may occur as a result of the provisions set forth in Section 6.01.3.

#### 6.04 Disability Insurance (LTD)

Effective the first pay period ending July 2007, the City shall contribute to the Union \$35 per month per represented employee. The Union shall place the \$35 per month per employee into a separate account.

#### 6.05 Vision Care

The City will provide full coverage for covered services and/or materials when members go to participating ophthalmologist, optometrist, or optician of Medical Eye Services of California or other negotiated plan. Benefits are limited if members go to a nonparticipating care provider. See brochure provided by the City for details.

The vision plan shall provide for a comprehensive examination and one (1) pair of lenses and a standard frame (or contact lenses in lieu of lenses and frames) in any consecutive 12 months. Allowances for services under this plan are outlined in the plan brochure or by contacting the Human Resources Division.

#### 6.06 Life and Accidental Death and Dismemberment Insurance

Effective November 1, 1998, the City shall pay the premium for all permanent employees for life insurance coverage equal to \$50,000 or five times the employee's annual salary to a maximum of Six Hundred Thousand Dollars (\$600,000), at the employee's option. Included in this insurance is Accidental Death and Dismemberment (AD&D) coverage. See Group Insurance Summary Plan for information regarding dismemberment benefits. This benefit may be continued at the employee's cost after separation.

#### 6.07 Job-Related Physician Visits

The City has prearranged qualified medical facilities to provide quality and prompt medical care to injured employees. If, after 30 days of care by an employer-directed physician, a member is for any reason dissatisfied, s/he may select your own doctor. Members may request this change by contacting Risk Management or the City's claims administrator.

In lieu of an employer-directed physician, State law allows members the right to see their personal physician immediately following an accident. Members are required to make this request in writing and have it on file with the Risk Manager before the date of the injury. For this purpose, "personal physician" is defined as a doctor or chiropractor (not both) who, before the injury, directed the medical treatment of the employee and maintains the employee's medical records. The member's personal physician must be within a reasonable geographical area and must be willing to abide by the specific requirements set forth by State law for health-care providers who wish to care for individuals injured on the job.

If the member's personal physician is not immediately available, the member should not wait until his/her physician is available but go immediately for treatment at a designated facility.

#### 6.08 Employee Assistance Program

The City will provide an assistance program to employees and their immediate families. This licensed counseling service provides assistance and referrals for marriage and family problems, alcohol and drug dependency, depression, crisis/emergency counseling, and other concerns. All counseling services are confidential. Counseling sessions are free for the first five visits per year; employees begin paying towards the cost thereafter.

#### 6.09 Section 125 – Flexible Benefit Plan

Effective January 1, 1999, the following Qualified Benefits are available to represented members under the City's Flexible Benefit Plan: Premium Contribution Plan, Medical Expense Reimbursement Plan, and Dependent Care Assistance Plan.

August 26, 2013

Ms. Melissa Stevenson-Dile  
Assistant City Manager  
City of Mountain View  
500 Castro Street  
Mountain View, CA 94041

Re: Actuarial Analysis of Retiree Medical Costs for Sworn Safety Employees  
A Proposal to Join the CalPERS Healthcare Program on an Equal Contribution Basis

Dear Melissa:

This letter is intended to present the final results of our actuarial analysis of the projected long term cost of retiree medical benefits if the City were to adopt the program of benefits described in this report for its sworn safety employees (fire and police). This report is one part of a larger project of the PEMHCA Committee which examines whether the cost of increased benefits to current retirees and future retirees, primarily in the form of subsidized coverage for dependents, could be fully offset by potential premium savings for active employees.

Our calculations were prepared in accordance with generally accepted actuarial principles and methods; in our opinion, the actuarial assumptions used are reasonable individually and in the aggregate and appropriately anticipate future experience under the proposed program of benefits. However, due to the uncertainties involved and the long term nature of these projections, variations from these results are inevitable. Some changes in the plans offered and premium rates charged by CalPERS were announced after this analysis was completed. Had we been aware of these changes at the start of this study, we may have made slightly different estimates, though we do not expect those to have resulted in material differences in the results. In reality, the recent CalPERS program changes may result in a different basis for developing the City's contributions, and therefore different costs for retirees. However, for purposes of this report, our calculations reflect the CalPERS plan and premium structures in effect during 2013.

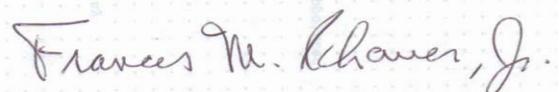
California Government Code Section 7507 requires that public agencies evaluate increases in the expected value of other post-retirement benefits (OPEB) prior to adopting any such changes. So long as material changes are not made from the benefits we analyzed, this report may be sufficient to satisfy the requirements of GC Section 7507.

We appreciate the opportunity to work with the Committee on this complex project and, as always, are available for questions or discussion of the results.

Sincerely,



Catherine L. MacLeod, FSA, EA, MAAA  
Director, Health and Benefit Actuarial



Francis M. Schauer, Jr., FSA, EA, MAAA  
Manager, Health and Benefit Actuarial



City of Mountain View

Proposal to Join the CalPERS Medical Program  
Analysis of the Retiree Medical Cost  
For Sworn Safety Employees

Submitted August 2013

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## Executive Summary

At present, the City provides its retiring employees and their eligible dependents with continued access to the healthcare programs offered to its active employees. The City pays all or a portion of the monthly single coverage medical premiums for the lifetime of retirees who satisfy the eligibility requirements; the retiree pays the premium for any covered dependents. The City reports an annual OPEB expense relating to this benefit and the implicit subsidy of retiree premiums in its financial statements.

A PEMHCA Study Committee was formed to examine the potential costs and benefits of a possible migration of coverage for its sworn safety employees from the current medical plans to the CalPERS healthcare program on an “equal contribution” basis. In an earlier phase of this project, Bickmore worked with the Committee to explore practical changes that might be considered to its subsidy of premiums for active sworn safety employees.

The intent of this phase is to summarize the projected long term retiree medical costs that would be required by PEMHCA corresponding to the new active employee premium cost-sharing proposals. For purpose of this analysis, we assumed the proposed benefit change would be effective on January 1, 2013, although the actual changes will be effective January 1, 2014 or later. In addition, we considered many factors, including, but not limited to:

- The limitations and requirements of the CalPERS medical program;
- How current active and retired sworn safety employees might logically transition from their current City medical coverage to a plan offered in the CalPERS program
- How changes in benefits might impact retiree decisions on whether or not to cover a spouse and/or other dependents;
- Appropriate assumptions to be used; and
- How the projected long term OPEB cost for the proposed PEMHCA plan design compares to that under the current City plan design.

The chart below provides a brief comparison of the OPEB liabilities and annual cost for the current City program and those for the proposed plan design for joining the CalPERS medical program. For the generalized comparison table below, we averaged the proposed plan results in Table 1 based on 2 sets of assumptions of trend rates and medical plan.

Benefit Scenario	Current Plan	Average of Proposed Plan	% Change
For fiscal year ending	6/30/2013	6/30/2013	
Discount rate	7.61%	7.61%	
<b>Total Actuarial PV of Projected Benefits</b>	<b>34,907,573</b>	<b>39,865,659</b>	14.2%
<b>Total Actuarial Accrued Liability (AAL)</b>	<b>28,704,669</b>	<b>30,207,836</b>	5.2%
Retiree ARC	520,443	554,168	6.5%
Active ARC	1,187,089	1,583,634	33.4%
<b>Total ARC, fiscal year end June 30, 2013</b>	<b>1,707,532</b>	<b>2,137,761</b>	25.2%

The following pages outline the process taken in preparing this analysis.

## Benefits Considered in this Study

We analyzed expected medical costs to be paid by the City of Mountain View on behalf of its sworn safety employees<sup>1</sup> in retirement, assuming the City joins the CalPERS Healthcare Program and adopts the retiree medical benefits described below. The City has met directly with CalPERS staff to review details of its program. The following is a summary of who has access to this coverage and subsidized premiums after their employment with the City ends.

**Retiree Access to CalPERS Health Coverage:** CalPERS medical coverage will generally be available to employees and their dependents after termination of employment as follows:

- The employee must satisfy the requirements for retirement under CalPERS, which requires (1) attainment of age 50 (age 52 for new members hired in 2013 and later) with 5 years of State or public agency service or (2) approved disability retirement.
- If an eligible employee is not already enrolled in the medical plan, he or she may enroll within 60 days of retirement or during any future open enrollment period.
- Coverage may be continued at the retiree's option for his or her lifetime. A surviving spouse and other eligible dependents may also continue coverage.
- The employee must commence his or her retirement warrant within 120 days of terminating employment with the City to be eligible to continue medical coverage through the City and be entitled to the employer subsidy described in the PEMHCA resolution(s).

**PEMHCA Plan Designs Analyzed:** At the City's request, we analyzed expected medical costs to be paid by the City on behalf of employees in retirement, assuming the City contributes equal amounts toward the monthly medical premiums for *current* active and retired employees. The City's payments continue for the retiree's lifetime and (generally, though not always) for the lifetime of a surviving spouse, or until coverage is discontinued.

The City-paid portion of medical premiums for the proposed PEMHCA design is as follows:

- *For single level coverage:* The City will pay the full premium for single coverage for full-time regular employees and eligible retirees for any plan, up to but not exceeding the single coverage premium for the "Maximum" plan. The employee or retiree will pay the additional cost of any plan which has a higher monthly cost than the Maximum plan.
- *Dependent level coverage:* The City will pay 92% of the total premium for the employee and his or her dependents, up to but not exceeding 92% of the two-party or family premium for the Maximum plan. The employee or retiree will pay the remaining premium, which will be at least 8% of the two-party or family premium; more if the plan selected has a higher premium than the Maximum plan.
- In determining the amount paid by the City, the Maximum plan will be the plan with the 4<sup>th</sup> – highest Bay Area region Basic<sup>2</sup> plan rates (Kaiser in 2013). The maximum premium subsidy for Medicare retirees is the corresponding supplemental plan rate for the Maximum plan; the Maximum plan does not change to another plan for Medicare retirees even if the supplemental plan rate is not the 4<sup>th</sup> – highest Bay Area region rate.

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<sup>1</sup> For the balance of this report, where we refer to "employee" we specifically mean sworn safety employees to whom this change is intended to apply.

<sup>2</sup> Rates charged for active and pre-Medicare retirees.

## Benefits Considered in This Study (continued)

Although not directly a part of this study of the effect of a change to PEMHCA medical plans on retiree costs, the change to PEMHCA will result in premium savings for active employees. Appendix 2 shows the savings separately for sworn police and fire employees and Appendix 3 is an analysis of the expected premium savings for active employees.

**Comparison of Current and Proposed OPEB Plans:** The following chart provides a brief comparison of eligibility and benefit levels under the City’s current retiree medical plan and the proposed plan under PEMHCA:

Comparison of Eligibility and Benefits under the Current and Proposed PEMHCA OPEB Plans	Under Current City Program		In PEMHCA
	Retirees Now Receiving Benefits	Retirees Not Currently Receiving Benefits	All Current Retirees & Current Employees (When Retired)
Applicable Resolution	MOU Benefit	MOU Benefit	Equal Contribution Resolution
Eligibility	PERS retirement 10-15 years of continuous City service (waived for Disability)	Requirements not met or may have waived coverage since City pays no dependent premiums	Age 50 & 5 years of PERS membership (Waived for Disability) Started pension within 120 days of leaving the City
Retiree Benefit	85 - 100% of <b>single</b> rate premium*	None (or none taken)	100% of single premium (up to cap)
Dependent Benefit	None	None	92% of premiums up to cap (includes retiree benefit)

\* City coverage of single rate group insurance premiums by group:  
 Police – 85% of any HMO for those hired on or after 7/1/07. 85% of any plan for those hired previous to 7/1/07 and retired on or after 7/1/1992. 100% of any plan for those retired prior to 7/1/1992.  
 Fire – 85% of any HMO for those hired on or after 7/1/07. 85% of any plan for those retired after 7/1/05. 100% of any plan for those retired on or before 7/1/05.

**Note:** It is our understanding that if City sworn safety employees do move to the CalPERS medical program, future employees (those hired on or after the date of the transition) may be covered by a separate “PEMHCA vesting” resolution. We review the basics of that type of resolution and the potential costs for new employees in Table 4.

## General Background on OPEB Costs and Expense Recognition

**Overview:** The ultimate real cost of an employee benefit plan is the present value of all benefits and other expenses of the plan over its lifetime. These expenditures are dependent only on the terms of the plan and the administrative arrangements adopted. The *actuarial assumptions* are used to estimate the cost of these benefits; the *funding method* attempts to spread recognition of these expected costs on a level basis over the life of the plan.

GASB 45 requires that the cost of other post-employment benefits (OPEB) now be *accounted for* over the working lifetimes of employees, not simply at the time when benefits are paid in retirement. The key results from an initial valuation prepared for GASB 45 purposes are:

- The **actuarial present value of projected future benefits** (APVPB) – the total value of all benefits assumed to be paid to current retirees or current active employees after they retire. The APVPB discounts each future payment from the date expected to be paid back to the valuation date using the assumed discount rate (e.g., 7.61% for prefunding).
- The **actuarial accrued liability** (AAL) – the portion of the present value of benefits attributed to service your employees have already worked. The portion of the AAL not already covered by trust assets is called the unfunded AAL.
- The **normal cost** – the cost of future retiree medical benefits for active employees being attributed to active employees' current year of service
- The **annual required contribution** (ARC) – the sum of the current year's normal cost plus a payment to amortize the unfunded AAL, adjusted with interest to fiscal year end.

*In comparing the design options, then, a comparison of the actuarial present value of projected benefits (APVPB) gives the best representation of the long term commitments under each design, whereas the annual required contribution (ARC) gives the best representation of the annual accounting expense to be recorded for these benefits.*

While these costs represent additional costs to the City for retirees as a result of the change to PEMHCA medical benefits, these costs are offset, to some extent, by the 1.2% of pay active employees will be making to help fund these retiree benefits.

**How the costs above are calculated:** In the specific development of the projected benefit values and liabilities, we first determine an expected premium or benefit stream over the employee's future retirement. We then calculate a present value of these premiums as of the valuation date.

- These present value determinations reflect assumptions for the likelihood that an employee may not continue in service with the City to receive benefits (i.e., death or termination of employment before retirement);
- For those that do, appropriate assumptions are made to reflect the probability of retirement at various ages and the value of future benefits payable from those ages;
- We also include assumptions about the likelihood that an eligible retiree will or will not elect coverage and whether his or her spouse or other eligible dependents will take coverage as well.

The cost of benefits payable, once they begin for each employee, reflect expected trends in the cost of those benefits and the assumptions as to the expected date(s) those benefit will cease. The last retiree medical payments for current active employees may not be made for 60 years or more.

## General Background on OPEB Costs and Expense Recognition (Concluded)

In summary:

Actuarial Accrued Liability	Past Years' Active/Retiree Costs
<i>plus</i> Normal Cost	Current Year's Active Cost
<u><i>plus</i> Present Value of Future Normal Costs</u>	<u>Future Years' Active Costs</u>
<i>equals</i> Present Value of Projected Benefits	Total Benefit Costs

## OPEB Analysis for the City of Mountain View

In preparing this analysis, we first reviewed the current OPEB program and considered how the proposed benefits and medical plans offered might affect retiree behavior. We then prepared retiree medical cost projections in the manner required by GASB 45 and summarized those results side by side for comparison.

**Medical plan elections:** Bickmore and the Committee jointly considered the appropriate assumptions to make regarding which CalPERS plans would be selected by currently covered sworn active and retired employees, based on plans available in 2013. The following decisions were made by the Committee and are reflected in this analysis:

Assumed Employee and Retiree Plan Elections	
Current Plan	Proposed Plan
Kaiser	Kaiser
Other HMO	Blue Shield Access
PPO or POS	75% to PORAC; 25% to PERS Choice

**Data:** This analysis was prepared based on employee census data initially submitted to us by the City in February 2013 and clarified in various related communications. Summaries of that data are provided in Table 2. While the individual employee records have been reviewed to verify that it is reasonable in various respects, the data has not been audited and we have otherwise relied on the City as to its accuracy. We also relied on the PEMHCA Committee regarding who was to be included in this study.

The City provided data on retirees not currently covered by the City's healthcare plan in order to recognize potential costs for other retirees who may not previously have qualified for or waived City coverage as a retiree, but would be entitled to elect coverage in the CalPERS program.

**Significant Assumption Changes:** Many of the assumptions used in this analysis are the same, or essentially the same, as those described in recent analysis<sup>3</sup> prepared for these employees based on the current City retiree medical program. Different assumptions worth highlighting are:

- A higher % of spouse and dependent coverage in retirement under PEMHCA. The current benefit does not provide subsidized dependent premiums, whereas PEMHCA rules require that spouse and dependent coverage be provided to retirees at the same level that it is provided to active employees when an equal contribution resolution is adopted. It is, therefore, expected that more retirees will elect spouse and dependent coverage. We increased the assumption for coverage of a spouse and dependent children under age 26 to reflect the benefits payable under the proposed plan(s). The assumed percentages of dependent coverage for (a) existing covered retirees not already covering a spouse and (b) other non-covered but eligible retirees are somewhat lower than our assumption for future retirees.

<sup>3</sup> See report by Nicolay Consulting issued August 20, 2013.

## OPEB Analysis for the City (continued)

- For all illustrations presented in this report, we assumed that OPEB funding will continue to be an amount equal to or greater than the ARC each year, and that the City will maintain a net OPEB obligation less than or equal to \$0.
- Results are presented based on two alternative assumptions as to future increases in medical premiums chosen by the Committee for this analysis. Bickmore Trend (recommended by the Committee's consultant on this project), assumes higher initial but lower ultimate annual cost increases and reflects the possibility that long term cost growth under the CalPERS medical program could be lower than long term cost growth under the City's health program because CalPERS has greater purchasing power than the City. Nicolay Trend (recommended by the actuarial firm which completes the City's biennial OPEB valuation) was used in projecting cost increases for the City's health plan. It has a lower initial and higher ultimate annual cost increases. Both firms agreed there were legitimate reasons to use either trend in assessing cost growth under CalPERS. The Committee chose to analyze cost increases under both scenarios as a sensitivity analysis to assess best and worst case scenarios for health care cost growth.

A summary of the principal assumptions used in this analysis, including the two alternative trend assumptions, is provided in Table 6.

**Limitations in Comparing Current to Proposed Plans:** There are some differences between the current plan and the proposed PEMHCA design worth noting. These include:

1. **Implicit subsidy liability:** A retiree's medical claims are, on average, expected to be higher than medical claims for active employees. Having access to coverage at the same premium levels as active employees is a benefit for retirees, referred to as an "implicit subsidy" of retiree premiums. With the current individually underwritten program, the City is required to value and include this implicit subsidy liability in developing its annual OPEB expense. Employers participating in the very large community rated CalPERS medical program are currently not required to do so, based on current GASB 45 requirements.<sup>4</sup> In order to compare the relative *explicit* costs (i.e., direct City payments for retirees) of the current and proposed OPEB plans, both this report and the Nicolay report on the current plan exclude any implicit subsidy liability.
2. **Medical plan selection:** The Committee recognized that the medical plan premiums for the City's HMO and PPO plans are significantly different from the premium structures in the CalPERS healthcare program. This analysis recognizes a potential shift in the cost sharing arrangement and our best attempts have been made to anticipate employee elections in the CalPERS program. However, if this new design is adopted, some differences between assumed and actual employee elections should be expected.
3. **Participation options for current retirees:** There are some retirees previously eligible for coverage who did not elect it (or have dropped coverage) and others who will qualify for benefits under PEMHCA. We made assumptions regarding the percentage of these eligible non-covered retirees who will elect coverage for themselves and dependents, based on our experience preparing OPEB valuations and other similar studies, however the results could vary by as much as 10% of the retiree liability.

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<sup>4</sup> A proposed change to Actuarial Standard of Practice 6, if adopted, would probably eliminate the current community rated plan exception for implicit subsidy liability disclosure.

## OPEB Analysis for the City (concluded)

4. **Current plan options not available in CalPERS:** There are some differences in availability of coverage in the current City program that may be affected by the move to CalPERS medical plans. These differences do not appear to be widespread and have not been considered in this analysis, but are nonetheless noted here:
  - a. There may be differences in the current City program and the CalPERS program with regard to when a spouse is entitled to coverage during the retiree's lifetime or after his/her death.
  - b. There is at least one active sworn employee who has made an irrevocable election to receive City contributions toward a defined contribution retiree health program. PEMHCA may not prohibit this defined contribution benefit, but it does not allow the City to exclude this employee from benefits provided to other employees through a PEMHCA resolution. In other words, this employee could potentially receive benefits under both the defined benefit (PEMHCA) benefit and the defined contribution benefit.
5. **Asset value:** The July 2011 actuarial valuation of the plan developed an actuarial value of assets by smoothing differences between actual and expected values over a rolling 5 year period. However, because the actuarial value of assets was not available as of January 1, 2013 (the date of this analysis), we used the current market value of trust assets to develop the ARC for both the current and proposed plan costs in this report. Some cost fluctuations in biennial valuation results should be expected due to differences between actual and expected earnings on OPEB trust assets.

## Presentation of Results

Our results are summarized in the following exhibits:

- **Table 1** compares the present value of future retiree medical benefit liabilities and the annual required contribution (ARC) for the current plan to those of the proposed plan. There are 3 columns provided for the proposed plan design:
  - We reflected two different assumptions regarding rates at which future medical premiums are assumed to increase (healthcare trend).
  - We averaged the results of the different trend assumptions, to see the generalized effect of the proposed plan change.

In developing the ARC, we assumed the City will continue to amortize the unfunded actuarial accrued liability on a level percent of pay basis over the remaining 24 years of the initial 30 year closed amortization period.

As noted earlier, for purposes of this comparison, we included only those assets allocated by the City as having been accumulated toward the funding of *explicit* benefits for safety employees.

- **Table 2** provides a summary of basic employee data for those included in this study.
- **Table 3** projects benefits expected to be paid to retirees over the next 20 years.
- **Table 4** compares estimates of annual costs for new employees if covered by (a) the current plan, (b) the proposed PEMHCA “equal contribution” design and (c) the PEMHCA vesting formula.
- **Table 5** provides analysis of the expected net cost (savings) for new sworn police and fire employees, comparing the change in the annual OPEB cost to the change in annual premium costs to the City for a new employee hired at age 30.
- **Table 6** provides a summary of the key assumptions used to develop the results presented in this report.

Further information is provided in the appendices:

- **Appendix 1** is a summary prepared by CalPERS, describing PEMHCA vesting resolution requirements.
- **Appendix 2** provides separate results of the retiree medical costs shown in Table 1 for fire safety and sworn police employees.
- **Appendix 3** provides estimated City savings in medical premiums for *active* sworn employees by comparing premium rates in effect from August 1, 2012 – July 31, 2013 in the City plan compared to CalPERS rates adjusted (weighted) for the same period. We also provide separate results of the estimated savings between active sworn police and fire employees.

**Table 1**  
**Comparison of OPEB Cost: Current vs. Proposed Plan**

From page 4, the **actuarial present value of projected benefits** (APVPB) represents the total value of all future benefits assumed to be paid to current retirees and as well as for current active employees after they retire. The **actuarial accrued liability** (AAL) is the portion of the APVPB attributed to service which employees have already worked. The **normal cost** is the cost of future benefits for active employees being attributed to the current year of service.

The following compares the projected OPEB liabilities and the ARC for the current plan to those of the proposed PEMHCA plan design.

Benefit Scenario	Current Plan	Proposed Plan		Average of Proposed Plan	% Change
	1	2	3		
Assumed Election for PPO plans	N/A	75% PORAC / 25% PERS Choice			
Trend	Nicolay	Bickmore	Nicolay	Average	
For fiscal year ending	6/30/2013	6/30/2013	6/30/2013	6/30/2013	
Discount rate	7.61%	7.61%	7.61%	7.61%	
<b>Total Actuarial PV of Projected Benefits</b>	<b>34,907,573</b>	<b>39,435,013</b>	<b>40,296,305</b>	<b>39,865,659</b>	14.2%
<b>Total Actuarial Accrued Liability (AAL)</b>	<b>28,704,669</b>	<b>30,011,188</b>	<b>30,404,484</b>	<b>30,207,836</b>	5.2%
Allocated Value of Assets (explicit funding)	14,465,238	14,465,238	14,465,238	14,465,238	
Unfunded AAL (UAAL): AAL minus Assets	14,239,431	15,545,950	15,939,245	15,742,598	10.6%
Amortization Factor	15.5345	15.5345	15.5345	15.5345	
<b>Annual Required Contribution (ARC)</b>					
Normal Cost	<b>721,141</b>	<b>1,026,435</b>	<b>1,070,415</b>	<b>1,048,425</b>	45.4%
Amortization of UAAL	986,391	1,000,738	1,026,055	1,013,396	2.7%
Interest to 6/30	included above	74,664	77,216	75,940	
<b>Total ARC at fiscal year end</b>	<b>1,707,532</b>	<b>2,101,836</b>	<b>2,173,686</b>	<b>2,137,761</b>	25.2%
Retiree ARC	520,443	551,222	557,114	554,168	6.5%
Active ARC	1,187,089	1,550,614	1,616,571	1,583,634	33.4%
<b>Total ARC, fiscal year end June 30, 2013</b>	<b>1,707,532</b>	<b>2,101,836</b>	<b>2,173,686</b>	<b>2,137,761</b>	25.2%

In reviewing the comparison above, we can see that the change in the total AAL (past service liability) is relatively modest at 5.2%. The increase for retirees (6.5%) is slightly higher than for actives (3.2%). However, the changes in the present value of projected benefits, the normal cost and the ARC all highlight a greater increase in projected OPEB costs for active employees than for retired employees under the proposed PEMHCA design.

Comparing Columns 2 and 3, the different healthcare trend assumption has a modest effect on the APVPB (2.2%) and on the ARC (3.4%). See page 21 for the year by year comparison of the Nicolay and Bickmore trend assumptions.

**Table 2**  
**Summary of Employee Data**

In preparing the projected cost increase relating to the benefit changes described above, we used the employee data, medical plan elections and premium information as of January 1, 2013 as provided by the City. The active employee data includes 166 full time sworn safety employees covered by the plan and 2 currently waiving coverage. Age and service information for the reported individuals is provided below:

Distribution of Benefits-Eligible Active Employees								
Current Age	Years of Service						Total	Percent
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 & Up		
Under 25							0	0%
25 to 29	6	5	1				12	7%
30 to 34	6	8	13	3			30	18%
35 to 39	2	6	7	16	1		32	19%
40 to 44	1	1	8	19	9	2	40	24%
45 to 49		1	2	7	7	11	28	17%
50 to 54				3	1	17	21	13%
55 to 59						4	4	2%
60 to 64			1				1	1%
65 to 69							0	0%
70 & Up							0	0%
<b>Total</b>	15	21	32	48	18	34	<b>168</b>	<b>100%</b>
<b>Percent</b>	9%	13%	19%	29%	11%	20%	<b>100%</b>	

Averages	Fire	Sworn Police	Total Safety
Annual Covered Payroll	\$9,354,000	\$12,173,000	\$21,527,000
Average Attained Age for Actives	42.9	40.3	41.4
Average Years of Service	14.0	11.5	12.6

The City reported 119 retirees currently receiving benefits and identified an additional 29 retirees expected to qualify under PEMHCA. The chart below summarizes their ages.

Current Age	Currently Covered Retirees *		Eligible Retirees Not Covered **	
	Number	Percent	Number	Percent
Below 50	2	2%	4	3%
50 to 54	14	12%	0	0%
55 to 59	21	18%	3	3%
60 to 64	28	24%	6	5%
65 to 69	23	19%	3	3%
70 to 74	15	13%	5	4%
75 to 79	9	8%	4	3%
80 & up	7	6%	4	3%
<b>Total</b>	<b>119</b>	<b>100%</b>	<b>29</b>	<b>24%</b>
Average Age:	64.3		67.8	

\* Includes 4 surviving spouses

\*\* Missing data for 6 retirees was developed from averages.

**Table 2**  
**Summary of Employee Data (continued)**

The ages of active and retired employees (covered and/or waiving) are shown separately for Fire and Sworn Police in the chart below:

Summary Counts by Group and Status			
Group	Fire	Sworn Police	Total
Covered Actives	72	94	166
Waiving Actives	1	1	2
Covered Retirees	57	62	119
Other Eligible Retirees	13	16	29
<b>Total Eligible</b>	<b>143</b>	<b>173</b>	<b>316</b>

Current plan coverage for active and retired safety employees is summarized in the chart below:

Medical Plan Type				
	Kaiser	Other HMO	PPO/POS	Totals
Actives	59	74	33	166
Non-Medicare Retirees	19	21	39	79
Medicare Retirees	23	6	11	40
Totals	101	101	83	285

The chart above excludes 2 active employees currently waiving coverage and 29 retirees who are expected to qualify for coverage under PEMHCA. For these individuals, we assumed they would elect coverage in a PPO plan since this was the most common election for current retirees with coverage.

Currently, about 48% of retirees are covering a spouse in one of the City's medical plans. As discussed earlier, we would expect this percentage to increase under PEMHCA on the basis of any of the proposed designs discussed in this report.

**Table 3**  
**Projected Annual Benefit Payments**

The following is an estimate of other post-employment benefits to be paid on behalf of current retirees and current employees expected to retire from the City under the various plan designs and assumptions regarding migration from current plans to CalPERS plans.

- Some projected benefits have been included for retirees currently waiving coverage or not eligible under the current City program but who would qualify under PEMHCA.
- No benefits expected to be paid on behalf of current active employees *prior to retirement* are considered in this projection.
- No benefits for potential *future employees* have been included.
- Only “explicit” benefit payments are shown; no implicit subsidy benefits are included.

Expected annual benefits have been projected on the basis of the actuarial assumptions outlined in Table 6.

<b>Projected Annual Benefit Payments</b>			
<b>Fiscal Year Ending June 30</b>	<b>Current Plan</b>	<b>Proposed Plan</b>	
	<b>Nicolay</b>	<b>Bickmore</b>	<b>Nicolay</b>
	<b>From Table 2-2 in 2013 report</b>	<b>75% PORAC / 25% PERS Ch</b>	<b>75% PORAC / 25% PERS Ch</b>
2013	\$ 1,103,088	\$ 1,287,837	\$ 1,287,837
2014	1,216,299	1,452,918	1,438,120
2015	1,327,291	1,600,754	1,571,185
2016	1,432,615	1,731,881	1,688,769
2017	1,546,514	1,897,231	1,841,317
2018	1,662,466	2,048,142	1,982,155
2019	1,784,274	2,190,566	2,119,991
2020	1,922,003	2,392,995	2,322,514
2021	2,067,066	2,557,529	2,494,078
2022	2,199,833	2,726,791	2,671,866
2023	2,336,797	2,856,026	2,811,887
2024	2,494,220	3,069,662	3,036,681
2025	2,655,971	3,251,336	3,231,793
2026	2,811,841	3,424,321	3,420,024
2027	2,962,849	3,568,686	3,581,261
2028	3,120,920	3,795,537	3,827,137
2029	3,278,010	3,929,044	3,980,711
2030	3,448,692	4,111,516	4,185,513
2031	3,627,988	4,317,499	4,416,232
2032	3,785,614	4,447,638	4,571,115
<b>20 year total</b>	<b>\$ 46,784,351</b>	<b>\$ 56,657,903</b>	<b>\$ 56,480,181</b>
<b>Increase</b>	-	<b>\$ 9,873,552</b>	<b>\$ 9,695,830</b>

### Table 4 PEMHCA Vesting for Future Sworn Safety Employees

It is our understanding that regardless of the specifics of the equal contribution resolution that might be adopted to cover current active sworn employees and retirees, for purposes of this analysis, we are to consider the possibility that *future* sworn safety employees might be covered by a PEMHCA Vesting resolution. Briefly, the PEMHCA vesting benefit requires the City to pay the lesser of (a) 100% of the premium and (b) the vested percent of the cap. The sections below and Appendix 1 provide details on eligibility and the amount of benefits. Discussion of costs is on the following page.

**Retiree Access to CalPERS Health Coverage:** Most of the requirements (or options) for CalPERS medical coverage after termination of employment are the same as described on page 2; differences are noted in italics.

- The employee must satisfy the requirements for retirement under CalPERS, which requires attainment of age 50, *have at least 10 years of CalPERS membership and at least 5 years of service with the City* or qualify for a disability retirement.
- If an eligible employee is not already enrolled in the medical plan, he or she may enroll within 60 days of retirement or during any future open enrollment period.
- Coverage may be continued at the retiree’s option for his or her lifetime. A surviving spouse and other eligible dependents may also continue coverage.
- The employee must begin his or her retirement warrant within 120 days of terminating employment with the City to be eligible to continue medical coverage through the City and be entitled to the employer subsidy described in the PEMHCA resolution(s). *However, if an employee leaves with at least 20 years of service with the City, he/she need not retire within 120 days. The employee can go on to work elsewhere, but the City will be obligated to pay this medical benefit when the employee eventually retires.*

**Benefits provided:** A PEMHCA vesting resolution would require the City to pay the lesser of:

- 100% of the monthly premium for retirees and all eligible covered dependents
- The monthly “100/90 formula” benefit amount times the vested percent, where
  - (a) The 100/90 formula amounts for calendar year 2013 are:

Retiree	Retiree + 1	Retiree + Family
\$622.00	\$1,183.00	\$1,515.00

(b) The vesting percent is based on years of CalPERS membership service as follows:

Qualifying PERS Service	Vested Percent	Qualifying PERS Service	Vested Percent
Less than 10	0%	15	75%
10	50%	16	80%
11	55%	17	85%
12	60%	18	90%
13	65%	19	95%
14	70%	20 or more	100%

However, if an employee qualifies for and takes a disability retirement, the vesting schedule above does not apply; he or she will automatically be 100% vested in health benefits.

**Comparison of Projected Annual Cost per New Employee:** Since the timing and number of future hires is unknown, we estimated the average annual normal cost for new safety employees at 5 different ages. The chart below illustrates the differences between the annual cost for new employees under the current City plan, the PEMHCA “equal contribution” design and the PEMHCA vesting formula<sup>5</sup>. Note that these are the estimated annual City OPEB costs for new employees that are offset, to some extent, by the 1.2% of pay contribution these new employees will be making to help fund these retiree benefits.

Age At Hire	Fire					Police				
	Current City Plan	PEMHCA Equal	% change	PEMHCA Vesting Formula	% change	Current City Plan	PEMHCA Equal	% change	PEMHCA Vesting Formula	% change
25	\$ 4,212	\$ 4,340	3%	\$ 4,658	11%	\$ 5,237	\$ 6,677	28%	\$ 7,104	36%
30	5,056	5,320	5%	5,744	14%	6,254	8,147	30%	8,721	39%
40	6,401	9,031	41%	8,632	35%	7,309	11,240	54%	10,888	49%
50	9,526	17,231	81%	13,508	42%	9,652	16,824	74%	14,506	50%
55	7,570	19,447	157%	16,917	123%	7,120	18,766	164%	16,615	133%

**Discussion:** The results illustrate how the annual OPEB cost escalates in general for employees hired at older ages, particularly under an equal contribution resolution, due to the short service requirement to be eligible for benefits. Remember that the amount of benefits paid is the same regardless of years of service; however, for employees hired at older ages, there are fewer years over which to allocate these costs and the cost per year goes up significantly.

Now compare the results of the equal contribution resolution to those under the PEMHCA vesting resolution.

- The annual normal cost under the vesting resolution is actually *higher* for those hired under age 40. If these employees stay and retire from the City, most will be 100% vested in a monthly benefit which is higher than the equal contribution resolution would provide. They would also be eligible to leave the City and return later in retirement to receive this benefit.
- Things begin to equalize around age 40. For older ages at hire, the vesting resolution costs drop below the equal contribution resolution costs as the potential for a retiree being less than 100% vested comes into play. However, the decrease at these older ages is not as much as might be expected for two reasons: (1) the underlying vesting formula caps are slightly higher (at least in 2013) than the proposed equal contribution plan we compared to here and (2), the vesting percentage only applies to the vesting formula caps (i.e., the “100/90 formula” amounts), which do not decrease at Medicare. Thus, many partially vested retirees would still have all or a majority of their Medicare Supplement plan premium paid by the City under this type of resolution. For example, a retiree with single coverage, who is 50% vested with a monthly pre-Medicare premium of \$500 and a post-Medicare premium of \$300, would have his pre-Medicare subsidy limited to \$311 (50% of \$622), but his post-Medicare premium would be subsidized in full.

<sup>5</sup> For this comparison, we assumed that 75% of sworn safety employees now in PPO plans would elect coverage in the PORAC plan and the other 25% would elect coverage in PERS Choice.

**Table 5**  
**Net Cost (Savings) for Average New Safety Employee**

The majority of this report has focused on comparing the projected cost of retiree health benefits between the current and proposed plan, considering only current retirees and current active employees expected to retire from the City. The preceding section (Table 4) looks at the potential OPEB cost differences for new employees, under the current plan, the proposed PEMHCA equal plan and the PEMHCA vesting formula. The chart on the preceding page clearly shows higher projected OPEB costs for future employees under both the PEMHCA options illustrated. This is not particularly surprising, since future safety employees would receive (in retirement) a subsidy of 85% of the single coverage premium under the current City program, but under both CalPERS program designs, would receive a higher percentage toward single coverage benefits plus significant dependent benefits.

However, new employees will not bring with them the burden of any previously unfunded OPEB liability. Funding for their benefits will theoretically begin the year they are hired and ideally end when they retire. In the meantime, if coverage shifts to the CalPERS program, the City may realize substantial savings in the cost of providing their medical coverage while they are actively employed. In this section of the report, we compare potential premium savings for a new safety employee against potentially higher OPEB cost to develop a net cost or net savings.

The potential savings in medical premiums to the City depends on which plan and which coverage level the employee selects. The chart below illustrates the potential savings, assuming employees migrate from current plans to the CalPERS plans indicated below<sup>6</sup>:

Estimated 2013 Premium Cost/Savings by Plan & Coverage Level for the City - Kaiser Cap						
Current Plan	Proposed PERS Plan	Coverage Level	City Paid Portion of Current Plan Monthly Premium	City Paid Portion of Proposed Plan Monthly Premium	Change in City Monthly Premium Cost (Savings)	Change in City Annual Premium Cost (Savings)
Kaiser	Kaiser	Ee Only	\$ 668.53	\$ 668.63	\$ 0.10	\$ 1
		Ee & 1	1,270.21	1,230.28	(39.93)	(479)
		Ee & 2+	1,769.60	1,599.36	(170.24)	(2,043)
Health Net HMO	Blue Shield Access or Net Value	Ee Only	\$ 838.36	\$ 668.63	\$ (169.73)	\$ (2,037)
		Ee & 1	1,592.88	1,230.28	(362.60)	(4,351)
		Ee & 2+	2,045.59	1,599.36	(446.23)	(5,355)
Health Net PPO	PORAC	Ee Only	\$ 1,001.54	\$ 581.00	\$ (420.54)	\$ (5,046)
		Ee & 1	1,886.29	1,000.96	(885.33)	(10,624)
		Ee & 2+	2,449.08	1,271.44	(1,177.64)	(14,132)
Health Net PPO	PERS Choice	Ee Only	\$ 1,001.54	\$ 667.03	\$ (334.51)	\$ (4,014)
		Ee & 1	1,886.29	1,227.34	(658.95)	(7,907)
		Ee & 2+	2,449.08	1,595.54	(853.54)	(10,243)

<sup>6</sup> City premiums used were in effect August 2012-July 2013. CalPERS premiums used are those in effect January – December 2013.

**Table 6  
Net Cost (Savings) for New Employees (continued)**

The Committee reported that new sworn safety employees are typically hired at about age 30. From the cost comparisons on page 15 in Table 4, we compare the annual OPEB costs for a new employee hired at age 30 under the current and proposed plan designs:

Annual 2013 OPEB Cost (Normal Cost) for New Employees Age 30				
	Fire		Police	
	PEMHCA Equal Kaiser Cap	Vesting	PEMHCA Equal Kaiser Cap	Vesting
Estimated new program cost	\$ 5,320	\$ 5,744	\$ 8,147	\$ 8,721
Est current program cost	5,056	5,056	6,254	6,254
<b>OPEB cost increase</b>	<b>264</b>	<b>688</b>	<b>1,893</b>	<b>2,467</b>

Finally, we compare the change in OPEB cost against the potential premium savings for this new sworn safety employee. Separate results are shown for fire and police employees.

This chart shows the potential **net** cost increase (or net savings) under the proposed PEMHCA Equal Plan design:

PEMHCA Kaiser Cap 75% PORAC			Fire			Police		
Current Plan	Proposed PERS Plan	Coverage Level	Est OPEB Cost Change	Change in City Annual Premium Cost (Savings)	Est Net City Annual Cost (Savings)	Est OPEB Cost Change	Change in City Annual Premium Cost (Savings)	Est Net City Annual Cost (Savings)
Kaiser	Kaiser	Ee Only	\$ 264	\$ 1	\$ 265	\$ 1,893	\$ 1	\$ 1,894
		Ee & 1	264	(479)	(215)	1,893	(479)	1,414
		Ee & 2+	264	(2,043)	(1,779)	1,893	(2,043)	(150)
Health Net HMO	Blue Shield Access or Net Value	Ee Only	\$ 264	\$ (2,037)	\$ (1,773)	\$ 1,893	\$ (2,037)	\$ (144)
		Ee & 1	264	(4,351)	(4,087)	1,893	(4,351)	(2,458)
		Ee & 2+	264	(5,355)	(5,091)	1,893	(5,355)	(3,462)
Health Net PPO	PORAC	Ee Only	\$ 264	\$ (5,046)	\$ (4,782)	\$ 1,893	\$ (5,046)	\$ (3,153)
		Ee & 1	264	(10,624)	(10,360)	1,893	(10,624)	(8,731)
		Ee & 2+	264	(14,132)	(13,868)	1,893	(14,132)	(12,239)
Health Net PPO	PERS Choice	Ee Only	\$ 264	\$ (4,014)	\$ (3,750)	\$ 1,893	\$ (4,014)	\$ (2,121)
		Ee & 1	264	(7,907)	(7,643)	1,893	(7,907)	(6,014)
		Ee & 2+	264	(10,243)	(9,979)	1,893	(10,243)	(8,350)

The chart on the following page shows the potential **net** cost increase (or net savings) under the proposed PEMHCA Vesting Formula design:

**Table 6**  
**Net Cost (Savings) for New Employees (concluded)**

PEMHCA Vesting			Fire			Police		
Current Plan	Proposed PERS Plan	Coverage Level	Est OPEB Cost Change	Change in City Annual Premium Cost (Savings)	Est Net City Annual Cost (Savings)	Est OPEB Cost Change	Change in City Annual Premium Cost (Savings)	Est Net City Annual Cost (Savings)
Kaiser	Kaiser	Ee Only	\$ 688	\$ 1	\$ 689	\$ 2,467	\$ 1	\$ 2,468
		Ee & 1	688	(479)	209	2,467	(479)	1,988
		Ee & 2+	688	(2,043)	(1,355)	2,467	(2,043)	424
Health Net HMO	Blue Shield Access or Net Value	Ee Only	\$ 688	\$ (2,037)	\$ (1,349)	\$ 2,467	\$ (2,037)	\$ 430
		Ee & 1	688	(4,351)	(3,663)	2,467	(4,351)	(1,884)
		Ee & 2+	688	(5,355)	(4,667)	2,467	(5,355)	(2,888)
Health Net PPO	PORAC	Ee Only	\$ 688	\$ (5,046)	\$ (4,358)	\$ 2,467	\$ (5,046)	\$ (2,579)
		Ee & 1	688	(10,624)	(9,936)	2,467	(10,624)	(8,157)
		Ee & 2+	688	(14,132)	(13,443)	2,467	(14,132)	(11,665)
Health Net PPO	PERS Choice	Ee Only	\$ 688	\$ (4,014)	\$ (3,326)	\$ 2,467	\$ (4,014)	\$ (1,547)
		Ee & 1	688	(7,907)	(7,219)	2,467	(7,907)	(5,440)
		Ee & 2+	688	(10,243)	(9,554)	2,467	(10,243)	(7,775)

**Table 6  
Actuarial Methods and Assumptions**

Valuation Date	January 1, 2013
Funding Method	Entry Age Normal Cost, level percent of pay <sup>7</sup>
Asset Valuation Method	Market value of assets
Discount Rate	7.61%
Participants Valued	Only current active employees and retired participants and covered dependents are valued. No future entrants are considered in this valuation.
Salary Increase	3.25% per year, used only to allocate the cost of benefits between service years
Assumed Increase for Amortization Payments	3.25% per year where determined on a percent of pay basis
Inflation Rate	3.25% per year

*The demographic actuarial assumptions used in this valuation are based on the (demographic) experience study of the California Public Employees Retirement System using data from 1997 to 2007. Rates for selected age and service are shown below and on the following pages.*

Mortality Before Retirement                      Mortality rates in the table below were projected by applying Scale AA on a fully generational basis.

CalPERS Public Agency Police & Fire Combined Industrial & Non-Industrial Deaths		
Age	Male	Female
15	0.00045	0.00006
20	0.00050	0.00019
30	0.00063	0.00046
40	0.00100	0.00078
50	0.00191	0.00141
60	0.00412	0.00283
70	0.00933	0.00668
80	0.01548	0.01129

To illustrate, there is a 0.412% probability that a 60 year old male will not survive to his 61<sup>st</sup> birthday

<sup>7</sup> The level percent of pay aspect of the funding method refers to how the normal cost is determined. Use of level percent of pay cost allocations in the funding method is separate from and has no effect on a decision regarding use of a level percent of pay or level dollar basis for determining amortization payments.

**Table 6 - Actuarial Methods and Assumptions  
(Continued)**

Mortality After Retirement      Mortality rates in each of the tables below were projected by applying Scale AA on a fully generational basis.

Service Retirees & Spouses			Disabled Fire Retirees			Disabled Police Retirees		
CalPERS Public Agency Miscellaneous Post Retirement Mortality			CalPERS Public Agency Disabled Miscellaneous Post Retirement Mortality			CalPERS Public Agency Disabled Police Post Retirement Mortality		
Age	Male	Female	Age	Male	Female	Age	Male	Female
40	0.00093	0.00062	20	0.00664	0.00478	20	0.00230	0.00181
50	0.00239	0.00125	30	0.00790	0.00512	30	0.00227	0.00188
60	0.00720	0.00431	40	0.01666	0.00674	40	0.00272	0.00224
70	0.01675	0.01244	50	0.01632	0.01245	50	0.00503	0.00401
80	0.05270	0.03749	60	0.02293	0.01628	60	0.00845	0.00835
90	0.16747	0.12404	70	0.03870	0.03019	70	0.02304	0.01771
100	0.34551	0.31876	80	0.08388	0.05555	80	0.06984	0.04569
110	1.00000	1.00000	90	0.21554	0.14949	90	0.16774	0.13822

**Termination Rates**

Whether voluntary or involuntary, if an employee terminates for reasons other than death and does not meet the requirements necessary to qualify for retirement, those benefits will be not be paid. We make assumptions about the likelihood that an employee will leave service in every year between the valuation date and the earliest expected date of retirement.

*Police:* Sum of CalPERS Terminated Refund and Vested rates

Attained Age	Years of Service					
	0	3	5	10	15	20
15	0.1013	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.1013	0.0258	0.0249	0.0000	0.0000	0.0000
25	0.1013	0.0258	0.0249	0.0179	0.0000	0.0000
30	0.1013	0.0258	0.0249	0.0179	0.0109	0.0000
35	0.1013	0.0258	0.0249	0.0179	0.0109	0.0082
40	0.1013	0.0258	0.0249	0.0179	0.0109	0.0082
45	0.1013	0.0258	0.0249	0.0179	0.0109	0.0082

*Fire:* Sum of CalPERS Terminated Refund and Vested rates

Attained Age	Years of Service					
	0	3	5	10	15	20
15	0.0947	0.0000	0.0000	0.0000	0.0000	0.0000
20	0.0947	0.0323	0.0257	0.0000	0.0000	0.0000
25	0.0947	0.0323	0.0257	0.0090	0.0000	0.0000
30	0.0947	0.0323	0.0257	0.0090	0.0079	0.0000
35	0.0947	0.0323	0.0257	0.0090	0.0079	0.0069
40	0.0947	0.0323	0.0257	0.0090	0.0079	0.0069
45	0.0947	0.0323	0.0257	0.0090	0.0079	0.0069

**Table 6 - Actuarial Methods and Assumptions  
(Continued)**

Retirement Rates

To the extent that an individual's employment is not assumed to end through termination or death prior to retirement, we make assumptions about the likelihood each employee will retire in each future year. The likelihood of retirement in any year is dependent up several factors, including the employee's current age, prior years of CalPERS membership and the retirement plan in which the employee participates. Separate rates apply for service and disability retirements.

Service Retirement Rates    Police: CalPERS Public Agency 3% @ 50 – Illustrative rates:

Attained Age	Years of Service					
	5	10	15	20	25	30
50	0.0700	0.0700	0.0700	0.1310	0.1930	0.2490
52	0.0610	0.0610	0.0610	0.1160	0.1710	0.2200
55	0.0900	0.0900	0.0900	0.1700	0.2500	0.3220
57	0.0800	0.0800	0.0800	0.1520	0.2230	0.2880
60	0.1350	0.1350	0.1350	0.2550	0.3765	0.4845
62	0.1125	0.1125	0.1125	0.2125	0.3138	0.4038
65 & over	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Fire: CalPERS Public Agency 3% @ 50 – Illustrative rates:

Attained Age	Years of Service					
	5	10	15	20	25	30
50	0.0340	0.0340	0.0340	0.0480	0.0680	0.0800
52	0.0690	0.0690	0.0690	0.0970	0.1380	0.1630
55	0.1270	0.1270	0.1270	0.1770	0.2520	0.2980
57	0.1010	0.1010	0.1010	0.1410	0.2010	0.2380
60	0.1500	0.1500	0.1500	0.2100	0.2985	0.3540
62	0.1250	0.1250	0.1250	0.1750	0.2488	0.2950
65 & over	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Disability Retirement Rates

Illustrative rates:

CalPERS Public Agency Police Combined Disability		CalPERS Public Agency Fire Combined Disability	
Age	Unisex	Age	Unisex
20	0.00079	20	0.00034
25	0.00332	25	0.00130
30	0.00664	30	0.00262
35	0.00996	35	0.00382
40	0.01327	40	0.00502
45	0.01659	45	0.00632
50	0.01999	50	0.00794
55	0.06803	55	0.07305
60	0.06869	60	0.07351

**Table 6 - Actuarial Methods and Assumptions  
(Continued)**

Medicare Eligibility                      Absent contrary data, all individuals are assumed to be eligible for Medicare Parts A and B at age 65.

Healthcare Trend                              Medical plan premiums are assumed to increase once each year. The increases over the prior year’s levels are assumed to be effective on the dates shown in the chart below:

Effective Jan 1	Bickmore Trend	Nicolay Trend
2014	8.00%	6.90%
2015	7.50%	6.60%
2016	7.00%	6.30%
2017	6.50%	6.00%
2018	6.00%	5.70%
2019	5.50%	5.50%
2020	5.00%	5.30%
2021	4.50%	5.00%
& later	4.50%	5.00%

Actual 2013 premiums were used for pre-65 health plans; 2012 post-65 health plan premiums were used for 2013.

Participation Rates                              *Active employees:* 100% are assumed to elect coverage in retirement.

*Retirees with current coverage:* 100% are assumed to continue coverage in the CalPERS medical program.

For active employees and retirees with current coverage, see page 4 for assumptions regarding medical plan elections.

*PEMHCA eligible retirees without coverage:*

- (a) For retirees who did not qualify for benefits under the current program and are under age 65, we assumed 70% would elect coverage in a PPO plan (see page 5).
- (b) For retirees currently over age 65 or who qualified for but waived coverage under the current program, we assumed 10% will elect coverage in a CalPERS PPO plan (see page 5).

Spouse Coverage                              *Active employees:* 85% are assumed to be married and 90% of married employees are assumed to elect coverage for their spouse in retirement under the CalPERS medical program. Surviving spouses are assumed to retain coverage until their death. Husbands are assumed to be 3 years older than their wives.

**Table 6 - Actuarial Methods and Assumptions  
 (Concluded)**

*Retirees currently covered:* If the retiree is currently covering a spouse, coverage is assumed to continue until the spouse's death. Where the retiree was reported to be married but not covering a spouse, we assumed 80% of those currently under age 80 would elect spouse coverage under the CalPERS program. Actual spouse ages are used, where known; if not, husbands are assumed to be 3 years older than their wives.

*Retirees not currently covered:* 80% of those currently under age 80 who were reported to be married at the time of retirement are assumed to elect coverage for a spouse under the CalPERS program. Where actual spouse data was not available, we assumed husbands to be 3 years older than their wives.

Dependent Coverage *Active employees and retirees without coverage currently:* 30% are assumed to cover eligible dependents other than a spouse until the retiree's age 65.

*Retired participants* currently covering dependent children are assumed to end such coverage when the youngest currently covered dependent reaches age 26.

**Changes from the most recently completed actuarial valuation of the City plan**

Spouse Coverage The percentage of retirees electing to cover a spouse was increased to 76.5% (85% married times 90% of married retirees electing to cover a spouse), from 55%.

Dependent Coverage An assumption was added for dependent coverage.

Healthcare Trend Two alternative healthcare trend assumptions were used.

Implicit Subsidy No implicit subsidy liability was included.

Assets The market value of assets was used, rather than actuarial value.

**Appendix 1**  
**PUBLIC AGENCY VESTING FOR HEALTH BENEFITS**  
**G.C. 22893 KEY RULES**

The following is taken from a CalPERS summary of key rules last revised in 2007:

**I. Vesting for Health Benefits**

- Regulated by Government Code 22893
- Applies to employees hired on or after the effective date of the resolution electing vesting method

**II. Vesting Schedule**

- A minimum of ten years of state service credit is required to receive 50% of the employer contribution
  - Credited State Service is compensated CalPERS service time earned (defined in G.C. 20069)
  - Purchased “Additional Retirement Service Credit (ARSC)” does not qualify as it is not earned service.
- Five of those ten years of service must be performed at your agency
- Each additional service credit year after ten years increases the employer contribution percentage by 5% until 20 years at which time the retiring employee is eligible for 100% of the employer contribution

**III. Employer Contribution for Active Employees**

- Is subject to the Collective Bargaining Agreement or Memorandum of Understanding (MOU).
- Must be at least the minimum contribution defined in GC 22892(b)(1). The minimum contribution for 2008 is \$97.00. This contribution will be increased each year according to G.C. 22892 (b)(1).

**IV. Employees Hired Prior to Vesting**

- Once each year the employer **may** allow any employee hired before the employer elected G.C. 22893 the opportunity to individually elect to be subject to the provisions of G.C. 22893.

**V. Employer Contribution for Retirees**

- Minimum must equal the State annuitant’s contribution, annually calculated by the 100/90 formula which is based on 100 percent of the weighted average of the health benefits plan premiums for annuitants enrolled for self alone plus 90 percent of the weighted average of the additional premiums required for enrollment of the family members in the four health benefits plan that have the largest number of enrollments during the fiscal year. This is the minimum contribution allowed under this provision.
- Maximum can be up to 100% total premium
- **Retired Employee and Survivor:** Percentage of employer contribution based on years of service credit for annuitants

**VI. Exceptions**

- Exceptions to the vesting requirements who are eligible for the **full employer contribution**
  - An employee who retires on disability retirement
  - An employee who performs 20 years of service credit solely with your agency

## Appendix 2 Comparison of OPEB Cost: Current vs. Proposed Plan Results Split for Fire and Police Employees

The two charts below split the results presented in Table 1 between Sworn Police and Fire employees.

### Results for Fire Employees:

Benefit Scenario	Current Plan	Proposed Plan		Average of Proposed Plan	%
Column Number	1	2	3		Change
Assumed Election for PPO plans	N/A	75% PORAC / 25% PERS Choice			
Trend	Nicolay	Bickmore	Nicolay		
For fiscal year ending	6/30/2013	6/30/2013	6/30/2013	6/30/2013	
Discount rate	7.61%	7.61%	7.61%	7.61%	
<b>Total Actuarial PV of Projected Benefits</b>	<b>15,962,506</b>	<b>16,719,579</b>	<b>17,012,817</b>	<b>16,866,198</b>	5.7%
<b>Total Actuarial Accrued Liability (AAL)</b>	<b>13,518,068</b>	<b>13,743,519</b>	<b>13,879,137</b>	<b>13,811,328</b>	2.2%
Allocated Value of Assets (explicit funding)	6,248,298	6,248,298	6,248,298	6,248,298	
Unfunded AAL (UAAL): AAL minus Assets	7,269,770	7,495,221	7,630,839	7,563,030	4.0%
Amortization Factor	15.5345	15.5345	15.5345	15.5345	
<b>Annual Required Contribution (ARC)</b>					
Normal Cost	<b>286,822</b>	<b>348,179</b>	<b>363,569</b>	<b>355,874</b>	24.1%
Amortization of UAAL	503,590	482,489	491,219	486,854	-3.3%
Interest to 6/30	included above	30,595	31,483	31,039	
<b>Total ARC at fiscal year end</b>	<b>790,412</b>	<b>861,262</b>	<b>886,271</b>	<b>873,766</b>	10.5%

### Results for Police Employees:

Benefit Scenario	Current Plan	Proposed Plan		Average of Proposed Plan	%
Column Number	1	2	3		Change
Assumed Election for current PPO Plan	N/A	75% PORAC / 25% PERS Choice			
Trend	Nicolay	Bickmore	Nicolay		
For fiscal year ending	6/30/2013	6/30/2013	6/30/2013	6/30/2013	
Discount rate	7.61%	7.61%	7.61%	7.61%	
<b>Total Actuarial PV of Projected Benefits</b>	<b>18,945,067</b>	<b>22,715,434</b>	<b>23,283,487</b>	<b>22,999,460</b>	21.4%
<b>Total Actuarial Accrued Liability (AAL)</b>	<b>15,186,601</b>	<b>16,267,669</b>	<b>16,525,346</b>	<b>16,396,508</b>	8.0%
Allocated Value of Assets (explicit funding)	8,216,940	8,216,940	8,216,940	8,216,940	
Unfunded AAL (UAAL): AAL minus Assets	6,969,661	8,050,729	8,308,406	8,179,568	17.4%
Amortization Factor	15.5345	15.5345	15.5345	15.5345	
<b>Annual Required Contribution (ARC)</b>					
Normal Cost	<b>434,319</b>	<b>678,257</b>	<b>706,847</b>	<b>692,552</b>	59.5%
Amortization of UAAL	482,801	518,249	534,836	526,542	9.1%
Interest to 6/30	included above	44,069	45,733	44,901	
<b>Total ARC at fiscal year end</b>	<b>917,120</b>	<b>1,240,574</b>	<b>1,287,415</b>	<b>1,263,995</b>	37.8%

## Appendix 3 Estimated City Medical Premium Savings for Active Employees January 7, 2013

### City of Mountain View Estimated City Medical Premium Savings for Active Safety Employees

The City, MVFF and POA requested that Bickmore analyze the potential savings in the City's portion of medical premiums paid for active MVFF and POA employees. The following formula for developing the City-paid portion of medical premiums was suggested for this analysis which is described below:

#### Based on premiums by coverage level for the 4th-highest Bay Area Region Basic plan (Kaiser in 2013)

- a. Single level coverage: The City will pay the full premium for single coverage for full-time regular employees for any plan with the City's maximum contribution tied to the 4th-highest Bay Area Region Basic plan (in 2013, Kaiser) and the employee will pay the additional cost of any plan which has a higher monthly cost.
- b. Dependent level coverage: The City will pay 92% of the total premium for the employee and his or her dependents, up to but not exceeding 92% of the two party or family premium rate for the 4th-highest Bay Area Region Basic plan (in 2013, Kaiser). The employee will pay the remaining premium, which will be at least 8% of the two party or family premium; more if the plan selected is higher cost than the 4th-highest Bay area plan.

2013 Monthly Caps as Described Above		
Coverage Level	2012/2013 Kaiser Bay	2012/2013 Kaiser Cap
1	\$ 644.38	\$ 644.38
2	1,288.77	1,185.67
4	1,675.40	1,541.37

Summary of Estimated City Premium Savings From 8/1/2012 - 7/31/2013		
City Paid Premiums	Current Plan	Proposed Plan
Monthly Paid by City	\$ 282,728	\$ 210,855
Monthly City Savings	-	71,872
Annual City Premiums	3,392,732	2,530,263
Annual City Savings	-	862,469
Annual Savings - Fire	-	403,166
Annual Savings - Police	-	459,303

The calculations above assume that employees selected new plans as follows:	Kaiser	Kaiser
	Other HMO	BlueShield Access
	PPO or POS	75% PORAC 25% PERS Choice

## Glossary

Actuarial Accrued Liability (AAL) – Total dollars required to fund all plan benefits attributable to service rendered as of the valuation date for current plan members and vested prior plan members; see “Actuarial Present Value”

Actuarial Funding Method – A procedure which calculates the actuarial present value of plan benefits and expenses, and allocates these expenses to time periods, typically as a normal cost and an actuarial accrued liability

Actuarial Present Value (APV) – The amount presently required to fund a payment or series of payments in the future, it is determined by discounting the future payments by an appropriate interest rate and the probability of nonpayment.

Annual Required Contribution (ARC) – The amount the employer would contribute to a defined benefit OPEB plan for a given year, it is the sum of the normal cost and some amortization (typically 30 years) of the unfunded actuarial accrued liability

CalPERS – Many state governments maintain a public employee retirement system; CalPERS is the California program, covering all eligible state government employees as well as other employees of other governments within California who have elected to join the system

Entry Age Normal Cost (EANC) – An actuarial funding method where, for each individual, the actuarial present value of benefits is levelly spread over the individual's projected earnings or service from entry age to assumed exit age

Government Accounting Standards Board (GASB) – A private, not-for-profit organization which develops generally accepted accounting principles (GAAP) for U.S. state and local governments; like FASB, it is part of the Financial Accounting Foundation (FAF), which funds each organization and selects the members of each board

Normal Cost – Total dollar value of benefits expected to be earned by plan members in the current year, as assigned by the chosen funding method; also called current service cost

Other Post-Employment Benefits (OPEB) – Post-employment benefits other than pension benefits, most commonly healthcare benefits but also including life insurance if provided separately from a pension plan

Pay-As-You-Go – Contributions to the plan are made at about the same time and in about the same amount as benefit payments and expenses coming due

PEMHCA – The Public Employees' Medical and Hospital Care Act, established by the California legislature in 1961, provides community-rated medical benefits to participating employers. Among its extensive regulations are the requirements that medical insurance contributions for retired annuitants be equal to the medical insurance contributions paid for its active employees, and that a contracting agency file a resolution, adopted by its governing body, with the CalPERS Board establishing any new contribution.

Prefunding – A term used in GASB 45 to refer to when an agency contributes an amount greater than or equal to the ARC each year.

Trend – The healthcare cost trend rate, defined as the rate of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design and technological developments.

Unfunded Actuarial Accrued Liability (UAAL) – The excess of the actuarial accrued liability over the actuarial value of plan assets

### Financial Impact for Sworn Fire and Sworn Police Migration to PERS Health

<b>Changes in Annual City Costs for Health Benefits – Fire Sworn Employees Only</b>		
	<b>PEMHCA Health Cost Bickmore</b>	<b>PEMHCA Health Cost Nicolay</b>
Increase in Annual Required Contribution	\$ 70,850	\$ 95,859
Savings in City-Paid Health Premiums Active Employees (Budgeted for FY 2012-13)	(399,536)	(399,536)
Estimated increase in City Premiums Associated with Smaller Group Insured (average 6.5% for Kaiser)	247,228	247,228
1.2% OPEB Contribution ( <i>Note: amount listed is based on 2012-13 salaries</i> )	( <u>120,657</u> )	( <u>120,657</u> )
<b>Total Annual City Cost (savings) for Employees and Retirees Health Insurance</b>	<b>\$(<u>202,115</u>)</b>	<b>\$(<u>177,106</u>)</b>
<b>Changes in Annual City Costs for Health Benefits – Police Sworn Employees Only</b>		
	<b>PEMHCA Health Cost Bickmore</b>	<b>PEMHCA Health Cost Nicolay</b>
Increase in Annual Required Contribution	\$ 323,454	\$ 370,295
Savings in City-Paid Health Premiums Active Employees (Budgeted for FY 2012-13) and Savings for PEMHCA Plans	(453,363)	(453,363)
Estimated Increase in City Premiums Associated with Smaller Group Insured (average 6.5% for Kaiser)	299,945	299,945
1.2% OPEB Contribution ( <i>Note: amount listed is based on 2012-13 salaries; Police contribution begins 2013-14</i> )	( <u>147,272</u> )	( <u>147,272</u> )
<b>Total Annual City Cost (savings) for Employees and Retirees Health Insurance</b>	<b>\$ <u>22,764</u></b>	<b>\$ <u>69,605</u></b>

Sources: Table 1 Bickmore Report and City of Mountain View