

SPECIAL CITY COUNCIL MEETINGS

TUESDAY, MAY 1, 2018

Room 12, Hillview Community Center 97 Hillview Avenue, Los Altos, California

AGENDA

6:00 P.M. – SPECIAL JOINT MEETING OF THE LOS ALTOS CITY COUNCIL AND SENIOR COMMISSION

ESTABLISH QUORUM

City Councilmembers
Commission Members

DISCUSSION ITEMS

1. Role of Commission and potential 2018/19 Work Plan topics

6:45 P.M. SPECIAL JOINT MEETING WITH THE LOS ALTOS CITY COUNCIL AND YOUTH COMMISSION

ESTABLISH QUORUM

City Councilmembers Commission Members

DISCUSSION ITEMS

1. Role of Commission and potential 2018/19 Work Plan topics

7:30 P.M. SPECIAL JOINT MEETING WITH THE LOS ALTOS CITY COUNCIL AND PARKS AND RECREATION COMMISSION

ESTABLISH QUORUM

City Councilmembers Commission Members

DISCUSSION ITEMS

1. Role of Commission and potential 2018/19 Work Plan topics

8:15 P.M. SPECIAL JOINT MEETING WITH THE LOS ALTOS CITY COUNCIL AND ENVIRONMENTAL COMMISSION

ESTABLISH QUORUM

City Council Members Commission Members

DISCUSSION ITEMS

1. Role of Commission and potential 2018/19 Work Plan topics

ADJOURNMENT

SPECIAL NOTICES TO THE PUBLIC

In compliance with the Americans with Disabilities Act, the City of Los Altos will make reasonable arrangements to ensure accessibility to this meeting. If you need special assistance to participate in this meeting, please contact the City Clerk 72 hours prior to the meeting at (650) 947-2720.

All public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, and that are distributed to a majority of the legislative body, will be available for public inspection at the Office of the City Clerk's Office, City of Los Altos, located at One North San Antonio Road, Los Altos, California at the same time that the public records are distributed or made available to the legislative body. Any draft contracts, ordinances and resolutions posted on the Internet site or distributed in advance of the Council meeting may not be the final documents approved by the City Council. Contact the City Clerk at (650) 947-2720 for the final document.

If you wish to provide written materials, please provide the City Clerk with **10 copies** of any document that you would like to submit to the City Council for the public record.

For other questions regarding the City Council meeting proceedings, please contact the City Clerk at (650) 947-2720.

SENIOR COMMISSION 2017/18 WORK PLAN

Goal	Projects	Assignments	Target Date	Status
	Provide oversight of the Senior	Oversight of the Senior Perspective (Lead – Anderson)		Working with the WWDG to help develop the Hillview Comm Center.
Vision for Senior Use of Community Centers	Provide oversight of the Senior Perspective in development of a new Community Center	 Survey / Benchmark other Senior Programs in neighboring communities; use previous collected surveys 		 Presentations done for Seniors who are active at either Center - for input (three presentations)
	Review Programs and Facilities at Hillview Community Center and Grant Community Center	Work with staff to prioritize needs, both program and facility, to add / adjust / enhance		 Taking input from Grant Park Seniors to the City for further dev of the Grant Park Center.
	Create new ideas for promotion in the community	Implement marketing and outreach plans		• Spring Fling - 4/6/18
Increase Participation in	Develop a marketing plan	Host formal and informal forums to gather feedback		 Planning to host formal and informal forums to gather feedback and give info - Senior Expo?
Senior Programs	Develop an outreach plan	Host information tables at various city-wide events		Host information tables at various city- wide events
	Promote Senior involvement in the community			
		 Represent Senior Commission in transportation studies if applicable 		Represent Senior Commission in transportation studies if applicable
Transportation / Parking	Define transportation and parking needs	 Survey Seniors for transportation needs 		Host an event to inform Seniors of alternative transportation
		 Host an event to inform Seniors of alternative transportation 		
		Work with BAT / CERT		Work to create workshop for Advanced Care Planning

SENIOR COMMISSION 2017/18 WORK PLAN

Safety		 Identify zones (Harding / Torbeck) Update Senior Program Resource Binder 	Identify zonesUpdate Senior Program Resource Binder
	Promote current and/ or add programs for personal / home / community safety		
Maintain Age Friendly Status	Ascertain outstanding items needed to maintain status through the World Health Organization (WHO)	Be in compliance with all	Working with CAFÉ to maintain current requirements for Age Friendly Status

YOUTH COMMISSION

2017/18 Work Plan

(In progress as of December 4, 2017)

Goal	Projects	Assignments	Target Date	Status
Update the City Flag	Create a contest for submission of a new flag design.	Evaluate the need for a new flag. Present to council. Create contest parameters, promote, evaluate, and select top designs.		In progress
Increase teen participation in	LAYC Dances	Promote monthly dances, pick new themes and help recreation staff sell dance tickets.	October 2017- May 2018	In progress
City of Los Altos teen programs	Underground	Publicize Underground as meeting location for local teen groups.	September 2017- June 2018	In progress
Participate in City of Los	New Year's Day Fun Run	Support recreation staff for day of task.	January 2018	Completed
Altos special events	Egg Hunt	Organize games and activities during event.	April 2018	Scheduled
Award Teen Friendly Business	Give award away annually Spring 2018	Set criteria, evaluate candidates, and present award to winning business.	Spring 2018	Scheduled
Provide Finals Week relief to students	Provide relief (food) or study help for students during finals week	Work with the Library to provide services during finals. Plan food service.	Spring 2018	Scheduled
Offer dodgeball tournament	Collaborate with LAH Youth Commission	Designate time & location of event, promote and implement the tournament.	Spring 2018	Scheduled

PARKS AND RECREATION COMMISSION 2018/19 WORK PLAN

DRAFT

GOAL	PROJECTS	ASSIGNMENTS	TARGET DATE	CITY PRIORITY RELATED TO	STATUS
		 Attend two recreation special events per year (All Commissioners) 	Ongoing		Ongoing
Engage with the community, solicit		• Strive for PARC representation at all special events (All Commissioners)	Ongoing		Ongoing
feedback on Los Altos Parks and recreation activities	Community Outreach	 Conduct community outreach at the Downtown Farmers Market non-profit booth (All Commissioners) 	August-Sept		Ongoing
		• Attend and volunteer at the Summer Concert Series (All Commissioners)	June-August		Ongoing
	Community	· Utilize current Los Altos parks photos to promote parks usage (Eckman)	Fall 2018		
Increase use of City	Engagement	 Organize a Los Altos photo display event (TBD) 	Fall 2018		Accomplished/ongoing
parks		• Explore hosting other community events at Los Altos Parks (Parmar & Heley)	Fall 2018 & Spring 2019		Accomplished/ ongoing
	Skate Park Feasibility	• Explore possibility of a skate parks in Los Altos parks (Weinberg, Lindermeier, Heley)	Spring 2019		
	Dog Park/Offleash Park Feasibility	• Explore possibility of a dog park and/or off leash hours in Los Altos parks (Ellerin, Lilygren & Lindermeier)	Fall 2019		Ongoing/on time
	Capital Improvement Program	Prioritize park project each year (All Commissioners)	Annually		In Progress

	Naturescape	Finalize details for Naturescape recommendation to City Council (Weinberg)	Fall 2018	In Progress
Work to ensure the City maintains high quality parks and facilities	Comprehensive Drinking Fountain Replacement Project	• Follow up to ensure that the City continues to replace the remaining drinking fountains identified in the PARC's previous recommendation on drinking fountain replacements (Full Commission)	Ongoing	In Progress
	Open Space	· Redwood Grove and Shoup Park improvements (Sub-committee TBD)		
	Recreation programs	· Review, analyze and recommend recreation programs and events (Heley, Parmar & Eckman)	Ongoing	
	Inclusive Playground	Explore possibility of inclusive playground in Los Altos (Heley, Parmar & Eckman)	Fall 2018	In Progress
	Outdoor Adult Fitness Project	• Continue to research and develop a proposal for inclusive outdoor fitness components and equipment for adults in parks (Weinberg)	Fall 2018	In Progress



1 North San Antonio Road Los Altos, California 94022-3087

MEMORANDUM

DATE: May 1, 2018

TO: City Council

FROM: Environmental Commission

SUBJECT: 2017/18 Environmental Commission Work Plan and Accomplishments;

2018/19 Environmental Commission Draft Target Areas

Before you are the Environmental Commission 2017/18 Work Plan and Accomplishments (covering the period April 2017-April 2018) and the 2018/19 Draft Target Areas.

Below are the five target areas in 2017/18. Here are the Accomplishments:

1. Climate Action Plan

- a. Finalized Environmental Resources Dashboard on City website to communicate status and tracking of specific environmental initiatives- continue to maintain and update dashboard as data is made available
- b. *Commission subcommittee on Green Building developed and finalized a comprehensive white paper with recommendations on model measures to achieve long-term environmental benefit. The Green Building Report was shared with City staff for evaluation and with SVCEA working group as input to development of model ordinances for the region
- c. *Commission subcommittee on anti-idling conducted research on the environmental impacts of idling reduction, engaged volunteers to identify and survey potential problem areas, coordinated survey efforts with the Police Chief, discussed potential partnerships with Los Altos schools, and considered regional educational efforts
- d. *Analyzed history of gas-powered leaf blower ordinance and its enforcement; participated in discussion with staff and Los Altos Police Department on potential outreach and educational ideas to engage the public and encourage compliance with current leaf blower ordinance
- *Requested & secured funding in CIP for CAP analysis and update study by staff/consultants
- f. Staff attends SVCE Management Advisory Work Group (MAWG) and reports monthly to the Commission
- g. Provided recommendations, as needed, to Director Bruins and City staff on topics and issues addressed or under consideration by SVCEA
- h. Vice Chair Don Weiden appointed to SVCEA Consumer Advisory Working Group

i. Recommended and supported Mayor Prochnow's signing of the Mayor's National Climate Action Agenda

2. Water Conservation/Stormwater Management

- a. Received update from Calwater on water conservation efforts, status, legislative changes, and education
- b. Commission subcommittee on Shoulder Paving worked with Public Works staff and consultant on revisions to Shoulder Paving Policy; update on progress anticipated Q-2, 2018; received public comments from interested organizations and community members
- c. Received report on green infrastructure for stormwater management
- d. Followed monthly reports both State and regional on water conservation efforts

3. Solid Waste Diversion

- a. Received annual report from Mission Trails Waste Systems and provided feedback on recycling, diversion and compost efforts including designing labels for trash, recycling and compost bins, monitoring public events waste diversion efforts, methods to achieve an increase diversion rate
- b. Facilitated availability and delivery of compost to Maintenance Services Center to be made available to Los Altos residents- delivery planned for Spring 2018

4. Visioning

- a. *Provided comprehensive memo to Hillview Community Center Project Task Force on important environmental design attributes, including creating a model building that sets the standards for future development in Los Altos
- b. Selected a Commissioner and Alternate to participate in the Design Development Working Group to address LEED certification process and design of the building; provided discussion on important design elements; received update on LEED Charrette efforts and continuing plans; received report from staff on the components of the LEED score card process and outcomes

5. Community Outreach

- a. Provided presentations and/or booths at Farmer's Market, Downtown Green, Senior Center, Home Upgrade Workshop to educate and encourage public on environmental issues
- b. Facilitated community meetings during implementation of SVCEA
- c. Held a community meeting in June 2017 after the launch of SVCEA to update the community and answer questions
- d. Continued to review SVCEA monthly agendas, reports and be available for Director Bruins to support her efforts

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There are five target areas identified for the Draft 2018/19 Work Plan:

Environmental Commissioners requests Council discussion and approval/additions to the proposed target areas. 2018/19 Work Plan will then be developed to address these target areas

1. Climate Action Plan

- a. Climate Action Plan (CAP) update and review by staff or consultants
- b. Review current City CAP measures and their impact
- c. Work with SVCEA on regional GHG metrics and analysis, updates to Los Altos dashboard
- d. Refine GHG reduction measures to actionable strategies

^{*} indicates areas for discussion with Council during the Joint Meeting

- e. Continue subcommittees on Anti-Idling and Gas-Powered Leaf Blowers focused at educational outreach to the community
- f. Work with staff to bring recommended Green Building "Reach Codes" to Council
- g. Serve as resource to Director Bruins on policy questions under consideration by SVCEA

2. Visioning Process

- a. Continue working with Design Development Working Group and staff to provide input on the new Community Center project, for example, including creating an allelectric, zero-carbon design
- b. Contribute to Downtown Visioning Process if applicable

3. Community Outreach and Education

- a. Educate residents on City ordinances or Green Initiatives (e.g., Gas-powered leaf blowers, anti-idling, recycling, conclusion of the stormwater and shoulder paving ordinances
- b. Continue supporting project implementation that impacts the built and natural environment
- c. Update residents on special events (e.g., compost availability, recycling events, workshops)

4. Water Conservation & Stormwater Management

- a. Continue to track water use on environmental resources dashboard
- b. Monitoring water rates and support CalWater conservation efforts
- c. Assist in development of Green Infrastructure Plan that is due to be adopted by June 2019
- d. Continue to provide input to staff and consultant on shoulder paving ordinance and other emerging environmental issues

5. Solid Waste Diversion

- a. Continue to track solid waste diversion on environmental resources dashboard
- b. Continue working with MTWS to discuss ideas and solutions to increase recycling, diversion and composting tactics at special events and throughout the City

We welcome your input and guidance.

On behalf of the Environmental Commissions, Thank you, Laura Teksler Chair, Environmental Commission

ENVIRONMENTAL COMMISSION 2017/18 Work Plan

April 9, 2018

Goal	Projects	Assignments April 9, 20	Target	City Priority	Status
			Date	related to	
	Community outreach and education for the implementation of CCE and SVCEA	 Speakers and SVCE staff outreach efforts for residential and business (Bray, Teksler, Hedden) Customer Program Advisory Group (CPAG) V.C. Weiden 	Ongoing	Climate Action Plan Goals and CCE-SVCE implementation	 Downtown Green event, August 20, 12-4pm; 8/2 & 8/4 Senior Center presentation by SVCEA staff Attend CPAG meetings (first meeting 1.17.18)
Climate Action	Resource to Director Bruins	Policy & Program guidance (Teksler, Hedden, Weiden)	Monthly	Climate Action Plan Goals and CCE-SVCE implementation	 Review SVCE packet and recommendations to Director Bruins as needed; request specific clarification from Dir. Bruins MAWG rep to update Dir. Bruins ahead of BOD meetings as needed
Plan & CCE	Partner with Community Development	• Staff	Monthly	Climate Action Plan Goals and CCE-SVCE implementation	Attend MAWG rep with Community Development staff if available to attend
	Energy efficiency measure for community	Commission to explore and research programs offered by PG&E, Acterra, Energy Upgrade California, CA First (Hedden)	Oct. 2017 workshop with SCCo Office of Sustainability	Climate Action Plan Goals and CCE-SVCE implementation	 Home Upgrade Workshop on Oct. 18, 2017 (approx. 40 attendees, welcomed by Weiden) PG&E streetlight replacement beginning late September 2017
	Research best practice for green building codes and planning requirements	Commission to engage with staff to research and recommend areas to be reviewed (EV, solar installs, green building measures) (Yuan, Teksler, Halkola)	Final report approved; sent to CD staff for review and comments	Climate Action Plan Goals and CCE-SVCE implementation New community center	 Initial Staff meeting Aug. 16, 2017 Staff shared report with SVCE MAWG at Sept 27, 2017 meeting Application of concepts to building of new community center

	With staff, support opportunities for CAP GHG reduction measures.	Commission to support staff's efforts to update CAP with inventory & review of measures	annual	Climate Action Plan Goals and CCE-SVCE implementation	CAP Report with analysis of measures and data in CIP Budget; staff attend Member Agency Work Group (MAWG) meetings.
Climate Action Plan & CCE (cont.)	Environmental Resources Dashboard	Review and enhance GHG reporting and data on Green Initiatives pages of City website (Bray, Eyre, Halkola)	In process	Climate Action Plan Goals and CCE-SVCE implementation	Data collection ongoing. Dashboard updated with data through 2015, 2016 if available
	Anti-Idling Effort	Subcommittee formed (Hedden, Yuan, Weiden)	Discussion on 8-14-17; Meeting with staff 8-25- 17; Update 9-11-17; Meeting with staff 9-18- 17; Update 10-9-17; Update 11-13-17;12-11- 17; 1-8-18; 2-12-18	Climate Action Plan Goals and CCE-SVCE implementation	 Research existing ordinances and enforcement Research educational campaign Discuss regional education effort Outreach to identified partners Implement survey at selected locations
Water Conservation & Stormwater Management	Support community and municipal drought related measures	 Reported by (Eyre) Track water usage via ER Dashboard (Eyre, Bray) Support staff in development of green infrastructure measures (Eyre) 	Summer/Fall focus with ongoing review	Water Conservation Resolution 2015- 15	 Monitor water use Update drought website CalWater presentation 9-11-17
	Stormwater management/shoulder paving policy	Assist staff and review development of storm water plans and reporting (Weiden, Bray, Halkola)	Subcommittee meetings, staff reports	Stormwater Master Plan and Water Conservation	Shoulder paving policy revisions

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Solid Waste Diversion	Review of progress toward diversion goals Focus on composting	Explore opportunities with staff for public outreach (Weiden, Yuan)	Compost available community at Sun SMaRT Station MTWS to provide compost to comm MSC or other Los location in Spring	nyvale diversion anity at Altos	 Compost to made available at MSC Spring 2018 at MSC Update on event recycling- add events to CM weekly updates MTWS update March 12, 2018
Visioning Process	Provide environmental perspective to assist visioning process	Environmental Commissi	New communication contents on going in the content of the content	design Council on natural	environmental impacts
Community Outreach	Support project implementation by public outreach and education efforts	 City webpages; social medengage with community general (Name of Commissioner) Invite speakers to EC med Work Plan related topics (Commissioners) 	groups assigned) etings on	Public outreach and education	Partnership with GTLA, SVCEA, community non-profits, community organizations, County Office of Sustainability

	Gas-powered leaf-blower ban review	Commission to review gas-powered leaf-blower ban enforcement data and consider potential outreach/educational campaign (Teksler)	Ongoing	Public outreach and education	Received historical memo from staff; reviewing enforcement data and discussing educational campaign with staff 1-8-18; potential subcommittee formation pending data review.
Special Projects	As assigned by Council	Research and report on membership for City in Mayor's National Climate Action Agenda	July 2017	Climate Action Plan. Request from Mayor Prochnow	Mayor signed letter; Commissioner Weiden to follow activities of the organization
		Research and report on Santa Clara County Climate Resolution	When directed by City Council	Climate Action Plan. Request from City Council	EC reviewed and compared County Resolution and Resolution for Climate Restoration and will provide recommendation at future date, if directed



1 North San Antonio Road Los Altos, California 94022-3087

MEMORANDUM

DATE: August 18, 2017

TO: Hillview Community Center Task Force

FROM: Environmental Commission

SUBJECT: CONSIDERATIONS FOR THE TASK FORCE PURSUANT TO THE

BUILDING OF THE HILLVIEW COMMUNITY CENTER

Environmental Commission

The Environmental Commission (EC) appreciates the opportunity to submit the following input as design considerations to the Hillview Community Center Task force. We thank the City for requiring a LEED Silver building in the design RFP and assume that, with that designation, the building will incorporate many sustainable building concepts such as energy efficient HVAC mechanical systems and appliances, water conserving fixtures, and incorporation of recycled content materials.

The EC envisions a facility that serves as a demonstration of sustainability to our community. We would like to call out the specific features outlined below as the highest priority sustainability features to be included in the design of the site. We welcome the opportunity to provide more detailed information and input when appropriate.

Waste

Deconstruction and Materials Reuse

Minimize landfill waste by deconstructing existing building and hardscape and reusing materials where possible in new building.

Energy

100% Electric building

All energy needs of HVAC, mechanical equipment, water heating and appliances should be provided by electricity, thereby minimizing Greenhouse Gas (GHG) emissions generated during building's operation. (Natural Gas has significantly higher GHG emissions compared to electricity, particularly now that Los Altos has GHG-free electricity.)

Photovoltaic System with Battery Storage and/or Solar Water Heating System

The ability to capture and store electrical/thermal energy generated from PV/Solar systems is increasingly important as our solar generation capacity increases grid-wide.

Healthy Indoor Environment

Incorporate natural lighting, passive heating and cooling principles, and non-toxic materials to ensure a healthy environment for occupants and decreased energy demand.

Water

Zero Rainwater Runoff

Use permeable surfaces for all hardscape surfaces to ensure no rainwater runoff from the site. Incorporate rain gardens and/or collection and storage for capture and infiltration during storm events. Investigate feasibility of collecting and storing rainwater for irrigation of native plant landscaping.

Transportation

Design for Alternative and Clear Air Transportation

Incorporate a drop-off area to accommodate ridesharing services and future shuttles. Ensure safe and convenient access for pedestrians and cyclists. Include at least 5 Electric Vehicle Charging-ready parking spaces (preferable with charging stations included), convenient areas for bicycle parking, and waste/compost/recycling storage and pickup area.

To: City of Los Altos

Staff Liaison to Environmental Commission

From: Environmental Commissioner, Don Weiden

Subject: Anti-Idling Survey Results and Environmental Commission Recommendations

I. The Environmental Commission appointed an Anti-Idling Subcommittee on August 14, 2017 and authorized a preliminary survey to assist in evaluating the extent of voluntary vehicle idling within Los Altos. Subcommittee activities:

- August 25, 2017 Gary Hedden and Don Weiden met with J. Logan and Sarah Henricks –
 Discussed and identified items to be investigated.
- September 1, 2017 Gary Hedden, Lei Yuan and Don Weiden met with Sarah Hendricks Continued discussion of items to be investigated. The City has the ability to post anti-idling signs without an ordinance if approved by Public Works.
- September 6, 2017 Lei Yuan met with Sybil Cramer of the Los Altos High School Green Team and Cheryl Weiden – Sybil stated that the Green Team selects their activities. Sybil would like to see City direction so that School District will take action including posting signs and enforcing antiidling.
- September 11, 2017 Subcommittee report to Environmental Commission.
- September 18, 2017 met with J. Logan and Sarah Henricks Custom signs would cost \$200 to \$250 each depending on size and graphics. Installation cost could be at nominal if done by City crews on existing posts. The Chief of Police met with the Los Altos High School Superintendent and found support for educational efforts and inclusion in Drivers Education program. Gary Hedden contacted Joe Simitian's office and found his staff willing to discuss and evaluate the subject. Simitian's staff later encouraged continuing grassroots efforts on anti-idling, although the staff would not pick this issue up at this time.
- October 9, 2018 Subcommittee report to Environmental Commission. Environmental Commission authorized conducting surveys.
- November 13, 2018 Oral report to Commission. Survey of Rancho Shopping Center, Hillview/Civic Center and Main Street/State Street completed 11/9. 11/10 and 11/11.
- December 11, 2018 Oral report to Commission. Survey at Los Altos High School completed 12/1, 12/4 and 12/5.
- January 8, 2018 Oral report to Commission. Surveys at K 8 schools to be scheduled after Solar installations are complete.
- February 12, 2018 Oral report to Commission. Survey at Pinewood School done by Pinewood students 1/23, 1/24 & 1/25. Aimi Wen spoke of Pinewood students' interest in anti-idling and interest expressed at High School Environmental Group summit on 1/27.
- March 12, 2018 Oral report to Commission. Surveys at K 8 schools are scheduled, Couvington during week of 3/19, Santa Rita during week of 3/26, Blach during week of April 2 and Gardner-Bullis during the week of 4/16.

April 9, 2018 – Subcommittee report to Commission and discussion of survey results.
 Commission recommended next steps.

II. Idling Survey Results

LOCATION	SURVEY TIME	IDLING	OCCUPIED	VEHICLES	AVERAGE
	MINUTES	MINUTES	VEHICLES	IDLING 1+	IDLING
		OBSERVED	WAITING	MINUTES	MINUTES
					PER DAY
RANCHO S CTR	172	111	Did not count	33	37
HILLVIEW/CIVIC	83	12	Did not count	6	4
С					
MAIN/STATE STS	202	66	Did not count	24	22
LOS ALTOS HS	519	1080	431	141	360
PINEWOOD	160	611	259	154	204
COUVINGTON	209	1244	222	142	415
SANTA RITA	200	1986	378	285	662
BLACH	137	427	297	90	142
GARDNER-BULLIS	170	1011	333	174	337

A one-page summary of data collected at each location is attached to the end of this report

III. Idling Survey Observations

1. Surveys at Schools

- a. Some vehicles arrive for student pickup 30+ minutes prior to student discharge and idle the entire time.
- b. Survey recorded idling only in specific zones in the school entry / exit loop from sidewalks. Idling within parking lots, on streets and adjacent areas waiting to enter the school entry / exit loop or waiting for students to walk to the waiting vehicles was significant (probably greater than the surveyed zones) and was not recorded.
- c. Weather was mild on the survey days so Idling was not required for comfort within vehicles.
- d. Activities while idling included activities on mobile devices and talking. Some even exited their vehicle to talk with other adults while their vehicle idled.
- e. School busses turned off their engines.
- f. Pick-up service providers (vans) generally idled their vehicles.
- g. The vast majority of vehicles waiting in the student pickup lane at K-6 schools idled.

2. Surveys at Locations other than Schools

- a. When entering or leaving parking spaces, individuals often become distracted with mobile devices and idle.
- b. Idling occurs when driver waits for a passenger to run an errand in a store.
- c. Idling occurs when food is brought into and consumed in the vehicle.

General

- a. More than a majority of occupied vehicles idle while parked.
- b. Generally, vehicle occupants seem unaware and not concerned about idling.

c. Survey work generated interest in anti-idling among high school students and K-8 student's parents.

IV. Benefits of Reducing Voluntary Vehicle Idling in Los Altos

- 1. Estimated prevention of MT CO2 for Los Altos from the Voluntary Vehicle Idling Study.
 - a. An idling vehicle emits approximately 1.4g of CO2 per second, Reference Vanderbilt paper Article 4.1, Therefore, 455 kilograms of CO2 emission $(1.4 \times 60 \times 5,415 = 454,860)$ was observed.
 - b. Based on the survey data and a number of assumptions, MT CO2 from voluntary vehicle idling in Los Altos most likely exceeds 94 MT CO2. Schools exceed 66 MT CO2: 180 school days per year, 9 public schools in Los Altos with surveyed average idling of 350 minutes per day, 7 private schools in Los Altos with assumed average idling of 175 minutes per day. Commercial and civic areas most likely exceed 28 MT CO2: 261 commercial/civic days per year, 4 times the survey observed idling minutes per day, 5 times the survey area for the total Los Altos commercial and civic area. Los Altos total most likely exceeds 94 MT CO2 (66 + 28).
- 2. Estimated prevention of MT CO2 for Los Altos Voluntary Vehicle Idling derived from various studies ranged from 47 to 542 MT CO2.
 - a. City of Palo Alto Colleagues Memo dated August 28, 2017 Factoring private vehicle estimate of MT CO2 prevented by population of Los Altos to population of Palo Alto yields 271 to 542 MT CO2.
 - b. Vanderbilt University Paper titled Costly myths: An analysis of idling beliefs and behavior in personal motor vehicles and dated March 4, 2009 – Factoring private vehicle estimate of MT CO2 prevented by number of private vehicles in US to number of vehicles in Los Altos yields 390 MT CO2.
 - c. Improving Toronto's Idling Control Bylaw, McKowen, Toronto Medical Officer of Health, Environmental Protection, 2010, page 6 Factoring Toronto's estimate of total idling MT CO2 by population of Los Altos to population of Toronto yields 1,164 MT CO2. This is approximately 43% of the total idling MT CO2 estimated in #1 and 12% of that estimated in #2 and results in estimated prevention of 47 to 234 MT CO2.
- 3. Environmental Benefits of Reducing Voluntary Vehicle Idling in Los Altos
 - a. Would reduce CO2 emissions and help Los Altos meet its Climate Action Plan (CAP)
 Greenhouse Gas Target. Of the 43 measures identified in the Los Altos CAP, the
 reduction in unnecessary idling would rank between 12th and 21st.
 - b. Would reduce the concentration of chemicals hazardous to human health in the air we breath at our schools, public gatherings, recreation events, shopping locations and outside/sidewalk dining locations.
 - c. Would set a standard of good practice and demonstrate leadership for others to follow, magnifying the positive environmental impacts.
- 4. Economic Benefits of Reducing Voluntary Vehicle Idling in Los Altos
 - a. Reduce vehicle maintenance costs. Idling a vehicle is harder on the vehicle's engine, electrical and mechanical systems than turning the vehicle off and on.

b. Save fuel costs. Idling passenger vehicles or light duty trucks consume between 0.32 and 0.71 gal/hr. of gasoline. If the City's fleet of 71 vehicles idled unnecessarily for 15 minutes per day with gasoline at \$3.50 per gallon the wasted fuel would total approximately \$10,000 per year.

V. Environmental Commission Recommendations

- 1. Consider incorporation of Anti-Idling into the next Climate Action Plan Implementation Work Plan Update
- 2. Assist in the development of a Community Anti-Idling Education Campaign if expressions of support are received from key stake holders (City, Schools, Businesses)
- 3. Assist in the development of an Anti-Idling policy for City Vehicle Fleet
- 4. Present recommendations to the City Council as part of the Environmental Commission's 2018/19 work plan.
- 5. Report survey results to K 8 School District, High School and Pinewood.
- 6. Encourage others to move forward on anti-idling as a grassroots activity

Survey Start Surv	Idling Survey Results											!	
Date Day Time T	Revisded 11/11/2017												
Date Date Date Inme Inme <th< th=""><th></th><th></th><th></th><th></th><th></th><th>#Cars</th><th>#Cars</th><th></th><th>#Cars</th><th></th><th></th><th></th><th></th></th<>						#Cars	#Cars		#Cars				
Date Day Time Ind Ind Ind Ind Ind Ind Time Observed 11/9/2017 Thurs 10:64 11:02 3 1 1 1 1 11/9/2017 Thurs 2:37 2:51 1 <t< th=""><th></th><th></th><th></th><th>Survey Start</th><th>Survey End</th><th>1 Min</th><th>2 Min</th><th># Cars 3</th><th>4 Min</th><th># Cars 5+</th><th>Survey</th><th>Idling Time</th><th></th></t<>				Survey Start	Survey End	1 Min	2 Min	# Cars 3	4 Min	# Cars 5+	Survey	Idling Time	
11/9/2012 Thurs 10-44 1102 3 1 18 1 11/9/2013 Thurs 12:05 12:25 12:25 12:05 1 14 11/10/2013 Thurs 12:05 11:41 1 2 1 14 14 11/10/2013 Frit Holiday 10:35 11:41 1 2 1 1 15 14 15 1 15 14 15 1 15 1 15 1 15 1 15 1 15 1 15 1 15 1 15 1 15 1 15 1 15 1 15 1 15 1 15 1 </th <th>Location</th> <th>Date</th> <th>Day</th> <th>Time</th> <th>Time</th> <th>Idl</th> <th>ldl</th> <th>Min Idl</th> <th>Ibi</th> <th>Min Idl</th> <th>Time</th> <th>Observed</th> <th>Comments</th>	Location	Date	Day	Time	Time	Idl	ldl	Min Idl	Ibi	Min Idl	Time	Observed	Comments
11/9/2017 Thurs 12:25 2 3 20 1 11/9/2017 Frith Oliday 12:37 2:51 1 1 14 1 1 14 1 1 14 1 1 1 14 1	Rancho Shoping Center	11/9/2017		10:44			cc	1		ч	18		4 Cloudy 63 to 67F
11/9/2017 Frl. Holiday 2.53 2.51 1 </td <td>Rancho Shoping Center</td> <td>11/9/2017</td> <td></td> <td>12:05</td> <td></td> <td></td> <td>7</td> <td></td> <td></td> <td>3</td> <td>20</td> <td></td> <td>9 Cloudy 63 to 67F</td>	Rancho Shoping Center	11/9/2017		12:05			7			3	20		9 Cloudy 63 to 67F
11/10/2017 Fri; Holiday 10:55 11:14 1 2 1 15	Rancho Shoping Center	11/9/2017		2:37			1				14		
11/10/2017 Frit Holiday 11:45 12:00 11/10/2017 Frit Holiday 2:33 2:49 2 2 2 2 2 2 2 2 2	Rancho Shoping Center	11/10/2017	ļ	10:55		Н	7				19		
11/10/2017 Fri; Holiday 2:33 2:49 2 2 2 2 1 1 1 1 1 2 2	Rancho Shoping Center	11/10/2017		11:45					1		15		
11/11/2017 Saturday 10:36 11:05 2 1 2 1 2 1 2 1 1 1	Rancho Shoping Center	11/10/2017		2:33			2				16		
11/11/2017 Saturday 12:03 12:26 2 1 1 2 23 2 11/19/2017 Saturday 2:15 2:41 2 4 26 2 11/19/2017 Thurs 11:09 11:26 2 4 26 2 11/19/2017 Thurs 12:44 12:56 2 4 26 2 4 26 2 4 26 2 2 4 26 2 4 26 2 4 26 2 4 26 2 2 4 26 2 4 26 2 4 26 2 4 26 2 2 1 1 2 1 1 2 1 1 2 1 1 2 1 2 4 26 2 2 1 2 2 1 2 2 1 2 2 2 2 2 3	Rancho Shoping Center	11/11/2017		10:46				2		1	21		
11/19/2017 Saturday 2:15 2:41 2 4 26 2 11/9/2017 Thurs 11:09 11:25 2 1 <td>Rancho Shoping Center</td> <td>11/11/2017</td> <td></td> <td>12:03</td> <td></td> <td></td> <td>2</td> <td>Н</td> <td>1</td> <td></td> <td>23</td> <td></td> <td>1 Partly Cloudy 61 to 63F</td>	Rancho Shoping Center	11/11/2017		12:03			2	Н	1		23		1 Partly Cloudy 61 to 63F
11/9/2017 Thurs 11:09 11:25 2 1 16 11/9/2017 Thurs 12:44 12:56 2 1 12 11/9/2017 Thurs 3:24 3:39 1 2 15 12 11/10/2017 Fri; Holiday 1:15 1:20 1 5 10 15 11/10/2017 Fri; Holiday 1:13 1:20 1 6 5 10	Rancho Shoping Center	11/11/2017		2:15					2		56		8 Partly Cloudy 61 to 63F
7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Hillview/Civic Center	11/9/2017		11:09		2					16		7 Cloudy 63 to 67F
2 2 188	Hillview/Civic Center	11/9/2017		12:44							12		0 Cloudy 63 to 67F
2 2 2 188	Hillview/Civic Center	11/9/2017		3:24			2				15		5 Cloudy 63 to 67F
2 2 1181	Hillview/Civic Center	11/10/2017		11:30							10	ANG 1-18-ANA	0 Cloudy, Rain, 65F; (HCC, Library & City Closed)
2 2 18	Hillview/Civic Center	11/10/201		1:15							5		0 Cloudy, Rain, 65F; (HCC, Library & City Closed)
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Hillview/Civic Center	11/10/2017	_	3:00							5		0 Cloudy, Rain, 65F; (HCC, Library & City Closed)
2 18	Hillview/Civic Center	11/11/201		11:14							5		0 Partly Cloudy 61 to 63F (Library & City Closed)
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Hillview/Civic Center	11/11/201		1:23							4		0 Partly Cloudy 61 to 63F (Library & City Closed)
15 15 21 2 2 2 2 7 7 7 7 7 7	Hillview/Civic Center	11/11/201		2:48							Ь		0 Partly Cloudy 61 to 63F (Library & City Closed)
15 21 22 2 2 2 2 7 7 7 7 7 7 7 7 7 7 7 7 7	Main St / State St	11/9/201		11:30							20		0 Cloudy 63 to 67F
21 2 2 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 8 8 8 8	Main St / State St	11/9/201		1:10		1			1		31		5 Cloudy 63 to 67F
21 2 2 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Main St / State St	11/9/201		3:00							16		
2 6 6 7 7 7 7 7 7 7 7 8 9 189	Main St / State St	11/10/201		11:44			1	2	1		32		1 Cloudy, Rain, 65F
6 4 7 7 7 189	Main St / State St	11/10/201		1:29			7				20		
7 7 7 189	Main St / State St	11/10/201		3:08				1			22		6 Cloudy, Rain, 65F
7 7 7 189	Main St / State St	11/11/201		11:26					1		15		4 Partly Cloudy 61 to 63F
189	Main St / State St	11/11/201		1:35					1		24		7 Partly Cloudy 61 to 63F
	Main St / State St	11/11/201		3:02			Н			Н	18		
Notes 1. Actual idling times are greater than observed idling times because idling before start of observation and after 5 min of observation is not recorded.											457		63
1. Actual idling times are greater than observed idling times because idling before start of observation and after 5 min of observation is not recorded.	Notes												
	1. Actual idling times are	greater than ok	served idling tir	nes because i	dling before	start of	observat	on and a	fter 5 m	in of observ	ation is no	t recorded.	

2. An idling vehicle emits 1.4g of CO2 per second, Reference Vanderbilt paper Article 4.1. Therefore, we observed 15.9 kilograms of CO2 emission (1.4 x 60 x 189 = 15,876)
3. If the idling observed is repeated each day for a year the resultant CO2 would be 1.9 Mt (15.88/3 x 365 = 1,931 Kilograms)
4. An estimate of CO2 idling emissions at these three locations would be significantly higher than 1.9 Mt observed because A) we could not observe the entirety of each location during the survey time and B) our survey time was less than 60 minutes each day at each location.

Idling Survey Results													
Revised 12/5/2017													
Location	Date	Dav	Survey Start Time	Survey Start Survey End	# Cars 1 Min Idl	# Cars 2 Min #	# Cars # Cars 3 4 Min Min Idl Idl	# Cars 5+ Min Idl	Survey	Idling Time Observed	Total Vehicles Waiting	Total Vehicles Idling 1+ min	Comments
Los Altos HS, Almond Av, Pickup / Dropoff Cresent	12/1/2017		2:10		4	7		5 18	3 104		107	38	Clear, Sunny, 63F, Note of the 18 cars observed idling 5+ min, 10 idled 10+ min, 5 idled 20+ min and 1 idled 30+ min, total of 231 min of idling
Los Altos HS, Jardin Av (Casita to Panchita)	12/1/2017		2:15	2:58				~1	43	7	19	2	
Los Altos HS, Jardin & Casita	12/1/2017	Friday	3:19	3:43			Н	2	24	11	13	က	Clear, Sunny, 63F
Los Altos HS, Almond Av, Pickup / Dropoff Cresent	12/4/2017 Monday	Monday	2:10	3:42	8	က	ო	3 19	9 92	281	103	36	Clear, Sunny, 63F, Note of the 19 cars observed idling 5+ min, 12 idled 10+ min, 5 idled 20+ min, total 246 min of idling
Los Altos HS, Jardin & Casita	12/4/2017	Monday	2:18	2:49				Т	31	20	∞	2	
Los Altos HS, Jardin & Casita	12/4/2017 Monday	Monday	3:10	3:43	Н		н		33	32	16	9	Clear, Sunny, 63F, Note of the 3 cars observed idling 5+ min, 1 idled 14 min, 6 total 24 min of idling
Los Altos HS, Almond Av, Pickup / Dropoff Cresent	12/5/2017 Tuesday	Tuesday	2:10	4:00	4		9	2 30	0110	417	138	47	Clear, Sunny, 66F, Note of the 30 cars observed idling 5+ min, 17 idled 10+ min, 9 idled 15+ min, 4 idled 20+ min, 1 idled 30+ min, total 377 min of idling
Los Altos HS, Jardin & Casita	12/5/2017	Tuesday	2:15	2:51				1	36	4	7	Н	
Los Altos HS, Jardin & Casita	12/5/2017 Tuesday	Tuesday	3:07	3:53		m		1 2	46	72	20	9	Clear, Sunny, 66F, Note of the 2 cars observed idling 5+ min, 1 idled 7 min and one idled 10 min, total 17 min of idling
					17	19	16 1	15 74	t 519	1080	431	141	
Notes													
1. Actual idling times are greater than observed idling times because idling before start of observation and after completion of observation is not recorded.	reater than o	bserved ic	lling times be	cause idling	before sta	rt of obs	servation and af	ter completi	on of obs	ervation is no	ot recorded.		
2. An idling vehicle emits 1.4g of CO2 per second, Reference Vanderbilt paper Article 4.1. Therefore, we observed 90.7 kilograms of CO2 emission (1.4 x 60 x 1080 = 90,720)	.4g of CO2 pe	er second,	Reference Val	nderbilt pape	er Article	4.1. The	retore, we obse	rved 90.7 kii	lograms o	t CO2 emissic	on (1.4 × 60 ×	1080 = 90	,720)
5. Survey dia not include the following additional pickup aleas at LANS. Main	le lollowing a	danconal	DICKUD dieds o	IL LANS. IIIdii		Ot, Alm	paiking lot, Amiliona Ave, Janum & Los Millos	& LOS MILIOS					

Idling Survey Results													
Pinewood School													
Revised 01/25/2018													THE RESIDENCE OF THE PROPERTY
Location	Date	Dav	Survey Start Survey End Time		# Cars 1 Min Idl	# Cars 2 Min Idl	# Cars # Cars 3 4 Min Min Idl Idl	ars lin # Cars 5+ Min Idl	F Survey Time	Total Idling Time Vehicles Observed Waiting	Total Vehicles Waiting	Total Vehicles Idling 1+ min	Comments
	8/2018	Tuesday	14:40	15:20		4				-		7	
Zone 2	1/23/2018	Tuesday	14:44	15:20	3	1	н			8		5	Clear, Sunny, 60F
													Clear, Sunny, 60F, Note of the 3 cars observed idling 5+ min, 2 idled 6+ min, and 1 idled 12+ min. total of 24 min of
Zone 3	1/23/2018	Tuesday	14:40	15:20	2	3		-	n	36		5)	9 idling
Zone 4	1/23/2018	Tuesday	14:40	15:20		1				2		1	1 Clear, Sunny, 60F
Zone 5	1/23/2018	Tuesday	14:40	15:20	4	6	m		2	49		18	Clear, Sunny, 65F, Note the 2 vehicles observed idling 5+ min, 1 idled 6+ min and 1 idled 12+ min, total of 18 min of idling
Subtotal					12	18	4	1	5 40	106	79	40	
Zone 1	1/24/2018	Wednesday	13:03	13:43		Н				2		Н	Cloudy, 60F
Zone 2	1/24/2018	Wednesday	13:03	13:43		2	П			7		3	Cloudy, 60F
Zone 3	1/24/2018	Wednesday	13:03	13:43				1		4		۲-1	. Cloudy, 60F
Zone 4	1/24/2018	Wednesday	13:10	13:43								0	Cloudy, 60F
Zones 5A & 5B	1/24/2018	Wednesday	13:03	13:43	-	Н	Н		—	14		4	Cloudy, 60F, Note the vehicle observed idling 5+min idled for 8+ min
Subtotal					T	4	2	H	1 40	27	37	6	
Zone 1	1/24/2018	Wednesday	14:40	15:20		2			2	14		4	4 Overcast, Light Rain, 55F
Zone 2	1/24/2018	Wednesday	14:40	15:20	H		-		∞	61		S)	Overcast, Light Rain, 55F, Note the 8 vehicles observed idling 5+ min, 1 idled 6+ min, 1 idled 7+ min, 1 idled 8+ min, 1 idled 9+ min and 2 idled 10+ min, total of 60 min of idling
Zones 3 & 4	1/24/2018	Wednesday	14:40	15:20		2			1	12		m	Overcast, Light Rain, 55F, Note the vehicle s observed idling 5+min idled for 8+ min
Zone 5A	1/24/2018	Wednesday	14:40	15:20	9	H			2	37		O.	Overcast, Light Rain, 55F, Note the 2 vehicles observed idling 5+ min, 1 idled 9+ min and 1 idled 20+ min, total of 29 min 9 of idling

Idling Survey Results														
Pinewood School														
Revised 01/25/2018			A STATE OF THE STA											
Location	Date	Dav	Survey Start Survey End Time		# Cars 1 Min Idl	# Cars 2 Min	# Cars 3	# Cars 4 Min	# Cars 5+	Survey	Idling Time Observed	Total Vehicles Waiting	Total Vehicles Idling 1+ min	Comments
Zone 5B	1/24/2018		14:40	15:20	5	4	2	2	1		53		14	Overcast, Light Rain, 55F, Note the vehicle 14 observed idling 5+min idled for 26+ min
Subtotal					12	6	2	2	14	40	177	71		
Zone 1	1/25/2018	Thursday	15:01	15:14	3	П					5		4	Partly Cloudy, 56F
														Partly Cloudy, 56F, Note the 7 vehicles
,						i.	(ſ		Č		, T	observed idling 5+ min, 1 idled 7+ min, 1 idled 8+ min, 3 idled 9+ min and 2 idled
Zone 2	1/25/2018	Thursday	14:40	15:20	1	5	7		,		81		ST	15 11+ min, total of 64 min of laling
												-		Partly Cloudy, 56F, Note the 5 vehicles observed idling 5+ min, 2 idled 13+ min
														and 1 idled 14+ min, total of 50 min of
Zone 3	1/25/2018	Thursday	14:40	15:20	Н	m		m	5		69		12	12 idling
Zone 4	1/25/2018	Thursday	14:40	15:20									0	0 Partly Cloudy, 56F
														Partly Cloudy, 56F, Note the 5 vehicles
														observed idling 5+ min, 2 idled 6+ min, 1
7000 5.0	1/25/2018	Thursday	14.40	15.20	Ç	4	4	2	ம		83		25	idled 7+ min, and 1 idled 21+ min, total of 25 45 min of idling
VC 2107	0707/07/1		1								}			Partly Cloudy, 56F, Note the 3 vehicles
												- to top		observed idling 5+ min, 1 idled 6+ min, 1
														idled 8+ min, and 1 idled 28+ min, total of
Zone 5B	1/25/2018	Thursday	14:40	15:20		2	c	2	c		63		10	10 42 min of idling
Subtotal					15	15	6	7	20	40	301	72	99	
TOTALS					40	46	17	11	40	160	611	259	154	
Notes														A company of the comp
1. Survey area was the Pinewood School entry/exit loop. Students were	the Pinewood	d School entry/ε	exit loop. Stud	ents were a	ssigned s	pecific zo	ones and	recordec	activity wi	thin his o	assigned specific zones and recorded activity within his or her assigned zone. Therefore, a specific car	d zone. The	refore, a sp	ecific car
could have been recorded idling in more than one zone.	recorded idli	ing in more than	n one zone.											
2. Electric vehicle idiling not included.	iling not inclu	nded.												
3. Idling was only recordeded during the noted survey times. In some cases idling was observed at the start of the survey time and after the end of the survey time.	cordeded du	iring the noted s	survey times.	In some case	≀ guilbi se	was obse	rved at th	ne start c	of the surve	y time an	d after the e	nd of the su	rvey time.	
4. An idling vehicle	emits approx	imately 1.4g of	CO2 per secor	nd, Reference	e Vander	bilt pape	r Article	4.1. The	refore, 51.3	kilogram	ıs of CO2 em	ission (1.4 x	60 × 611 =	4. An idling vehicle emits approximately 1.4g of CO2 per second, Reference Vanderbilt paper Article 4.1. Therefore, 51.3 kilograms of CO2 emission (1.4 x 60 x 611 = 51,320) was observed

Survey Start Start Survey Start S	Idling Survey Results														
1	Couvington School														
Subtotal 3/22/2018 Thursday 13:03 14:10 1 1 1 1 1 1 1 1 1	Revised 03/23/2018														
Bate Date Day Time It Cars # Cars # Cars															
3/21/2018 Wednesday 14:05 15:15 5 3 1 1 16 234 Subrotal 3/22/2018 Thursday 13:03 14:10 6 5 1 10 23 30 323 3/22/2018 Thursday 13:03 14:10 6 5 1 10 24 Subrotal 3/22/2018 Thursday 13:03 14:10 7 8 3 3 3 5 67 516			VeC	Survey Start Time						+		dling Time		Total Vehicles Idling 1+	Commante
Subtotal Subtotal Wednesday 14:05 15:15 1 3 77 3 3 3 24 2 2 2 1 10 1 1 1 3 24 2 2 3 3/22/2018 Thursday 13:03 14:10 6 5 1 1 1 0 10 2 3/22/2018 Thursday 13:03 14:10 6 5 1 1 1 0 10 2 3/22/2018 Thursday 13:03 14:10 6 5 1 1 10 2 3/22/2018 Thursday 13:03 14:10 6 5 1 1 10 2 3/22/2018 Thursday 13:03 14:10 6 5 1 1 10 2 3/22/2018 Thursday 13:03 14:10 7 8 3 3 3 3 5 67 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		1/2018	Wednesday	14:05	15:15	r)	m	1		16		4	0	25	Cloudy, 66F, Note the 16 vehicles observed idling 5+ min, 3 idled 6+ min, 1 idled 7+ min, 2 idled 8+ min, 1 idled 9+ min, 1 kdled 10+ min, 1 idled 12+ min, 3 idled 15+ min, 2 idled 22+ min and 1 idled 40+ min, total of 222 min 25 of idling
Subtotal 3/22/2018 Thursday 13:03 14:10 1 1 1 23 70 3 3/22/2018 Thursday 13:03 14:10 6 5 1 10 2 3/22/2018 Thursday 13:03 14:10 6 5 1	Zone 2	3/21/2018	Wednesday	14:05		Н	n			7		89		. 11	Cloudy, 66F, Note the 7 vehicles observed idling 5+ min, 1 idled 6+ min, 1 idled 10+ min, 3 idled 11+ min, 1 idled 16+ min and 1 idled 17+ min, total of 82 min of idling
3/22/2018 Thursday 13:03 14:10 1 1 1 3 24 2 3/22/2018 Thursday 13:03 14:10 6 5 1 10 2 Subtotal Subtotal						9	9	н		23	70	323	64	36	
3/22/2018 Thursday 13:03 14:10 1 1 1 3 24 2 2 3/22/2018 Thursday 13:03 14:10 6 5 1 1 10 2 Subtotal Subtotal 3/22/2018 Thursday 13:03 14:10 7 8 3 3 35 67 5															
3/22/2018 Thursday 13:03 14:10 6 5 1 10 2 3/22/2018 Thursday 13:03 14:10 7 8 3 3 3 67 5	Zone 1	3/22/2018	Thursday	13:03		Н	1	171	m	24		248		30	Cloudy, Drizzles, 54F, Note the 24 vehicles observed idling 5+ min, 1 idled 5+ min, 2 idled 6+ min, 3 idled 7+ min, 4 idled 8+ min, 1 idled 9+ min, 7 idled 10+ min, 4 idled 13+ min, 1 idled 14+ min, and 1 idled 15+ min, total of 230 min of idling
3/22/2018 Thursday 13:03 14:10 2 1 1 1 Subtotal 7 8 3 3 35 67 5	Zone 2	3/22/2018	Thursday	13:03		9	гU	₩		10	11/1/1/	242		22	Cloudy, Drizzles, 54F, Note the 10 vehicles observed idling 5+ min, 2 idled 6+ min, 1 idled 10+ min, 1 idled 11+ min, 1 idled 12+ min, 2 idled 13+ min, 1 idled 17+ min, and 2 idled 23+ min, total of 222 min of idling
3/22/2018 Thursday															Cloudy, Drizzles, 54F, Note the vehicle observed idling 5+ min idled for 19 min,
7 8 3 35 67	Zone 3	3/22/2018	Thursday	13:03			2			н		26		4	total of 19 min of idling
	Subtotal					7	8		m,	35	29	516	85	56	
Zone 1 3/23/2018 Friday 14:05 15:17 2 2 3 17 151	Zone 1	3/23/2018	Friday	14:05		2	2		m	17		151		24	Partly Cloudy, 59F, Note the 17 vehicles observed idling 5+ min, 2 idled 5+ min, 4 idled 6+ min, 1 idled 7+ min, 3 idled 8+ min, 4 idled 9+ min, 2 idled 10+ min, and 124 idled 12+ min, total of 133 min of idling

Idling Survey Results	s													
Couvington School														
Revised 03/23/2018														
					# Cars	# Cars	#	# Cars				Total	Total Vehicles	
Location	Date	Day	Survey Start Time	Survey Start Survey End Time	1 Min Idl	2 Min IdI	# Cars 3 4 Min Min Idl Idl		# Cars 5+ Min Idl	Survey Time	Idling Time Vehicles Observed Waiting	Vehicles Waiting	Idling 1+ min	Comments
								•						Partly Cloudy, 59F, Note the 13 vehicles observed idling 5+ min, 1 idled 6+ min, 2 idled 8+ min, 2 idled 9+ min, 1 idled 10+ min, 2 idled 12+ min, 1 idled 13+ min, 1 idled 20+ idled 14+ min, 1 idled 17+ min, 1 idled 20+ min, 1 idled 14+ min, 1 idled 20+ min, 1 idled 14+ min, 14+ m
Zone 2	3/23/2018	Friday	14:05	5 15:17	3	3	H		13		197		20	20 of idling
Zone 3	3/23/2018	Friday	14:05	5 15:17	2		NAME OF THE PARTY		4		57		· ·	Partly Cloudy, 59F, Note the 4 vehicles observed idling 5+ min, 1 idled 5+ min, 1 idled 7+ min, 1 idled 13+ min and 1 idled 30+ min, total of 55 min of idling
Subtotal					7	5	-	m	34	72	405	73	50	
TOTALS					20	19	5	9	92	209	1244	222	142	
Notes														
1. Survey area was the Couvington School entry/exit loop and first isle of parking. Survey takers were assigned specific zones and recorded activity within his or her assigned zone.	the Couvingto	on School entry	/exit loop and	d first isle of p	arking.	Survey ta	kers were	assigned	l specific zo	ones and	recorded act	ivity within	his or her a	ssigned zone.
Therefore, a specific car could have been recorded idling in more than	cific car coulc	d have been rec	corded idling	in more than	one zone.	4:								
2. Electric vehicle idiling not included.	iling not inclu	nded.		- Annual Control										
3. Idling was only recordeded during the noted survey times.	scordeded du	ring the noted	survey times.											
4. An idling vehicle	emits approx	imately 1.4g of	CO2 per secc	and, Referenc	e Vande	bilt pape	r Article 4.	1. There	sfore, 104.	5 kilograr	ns of CO2 en	nission (1.4	x 60 x 1244	4. An idling vehicle emits approximately 1.4g of CO2 per second, Reference Vanderbilt paper Article 4.1. Therefore, 104.5 kilograms of CO2 emission (1.4 x 60 x 1244 = 104,496) was observed

Idling Survey Results	8													
Santa Rita School														
Revised 03/28/2018	~													
Location	Date	Day	Survey Start Survey End Time	1.00.00	# Cars 1 Min Idl	# Cars 2 Min Idl	# Cars 3 4 Min Idl Ic	# Cars 4 Min #	# Cars 5+ Min Idl	Survey	Idling Time Observed	Total Vehicles Waiting	Total Vehicles Idling 1+ min	Comments
Zone 1	3/26/2018	Monday	14:10	15:15		2	9	υ	35		451		48	Sunny, 63F, Note the 35 vehicles observed idling 5+ min, 7 idled 5+min, 4 idled 6+ min, 2 idled 8+ min, 6 idled 9+ min, 2 idled 11+ min, 5 idled 12+ min, 5 idled 13+ min, 1 idled 15+ min, 3 idled 16+ min, 3 idled 17+ min, and 1 idled 19+ min, total of 409 48 min of idling
Zone 2	3/26/2018	Monday	14:10	15:15	н	က	ហ	1	9		113		16	Sunny, 63F, Note the 6 vehicles observed idling 5+ min, 1 idled 9+ min, 1 idled 12+ min, 1 idled 15+ min, 2 idled 16+ min and 16 1 idled 19+ min, total of 87 min of idling
Subtotal					Н		Ħ	9	41	65	564	100	64	
Zone 1	3/27/2018	Tuesday	14:10	15:15	Н	Ж	ın	м	20		195		32	Sunny, 68F, Note the 20 vehicles observed idling 5+ min, 2 idled 5+ min, 8 idled 6+ min, 2 idled 8+ min, 1 idled 9+ min, 5 idled 10+ min, and 2 idled 14+ min, total of 161 min of idling
Zone 2	3/27/2018	Tuesday	14:10	15:15	7	o.	м	4	23		325		46	Sunny, 68F, Note the 23 vehicles observed idling 5+ min, 3 idled 6+ min, 3 idled 7+ min, 1 idled 8+ min, 1 idled 11+ min, 5 idled 12+ min, 3 idled 13+ min, 1 idled 15+ min, 3 idled 16+ min, 1 idled 17+ min, and 46 2 idled 19+ min, total of 275 min of idling
70ne 3	3/27/2018	Tuesday	14:10	15:15	r.	2		+	on		162		18	Sunny, 68F, Note the 9 vehicles observed idling 5+ min, 1 idled 5+ min, 1 idled 6+ min, 2 idled 7+ min, 1 idled 11+ min, 1 idled 16+ min, 1 idled 17+ min, 1 idled 24+ min, and 1 idled 53+ min, total of 146 min 18 of idling
Subtotal	1				~			00	52	65		149		

Idling Survey Results														
Santa Rita School														
Revised 03/28/2018														
Location	Date	Day	Survey Start Time	Survey Start Survey End	# Cars 1 Min Idl	# Cars 2 Min Idl	# Cars 3 4 Min Min Idl		# Cars 5+ Min Idl	Survey	Total Time Vehicles Observed Waiting	Total Vehicles Waiting	Total Vehicles Idling 1+ min	Comments
Zone 1	3/28/2018	Wednesday	14:05	15:15	4	ιΛ	Ŋ	4	41		327		. 59	Sunny, 78F, Note the 41 vehicles observed idling 5+ min, 9 idled 5+ min, 9 idled 6+ min, 11 idled 7+ min, 5 idled 8+ min, 4 idled 9+ min, and 3 idled 10+ min, total of 282 min of idling
Zone 2	3/28/2018	Wednesday	14:05	15:15	4	o	9	7	17		244	:	43	Sunny, 78F, Note the 17 vehicles observed idling 5+ min, 4 idled 5+ min, 2 idled 6+ min, 2 idled 8+ min, 2 idled 8+ min, 2 idled 12+ min, 1 idled 13+ min, 2 idled 14+ min, 1 idled 16+ min, 1 idled 15+ min, 1 idled 11+ min, 10 idled 21+ min, total of 176 min of idling
Zone 3	3/28/2018	Wednesday	14:05	15:15	4	4	m	'n	O		169		23	Sunny, 78F, Note the 9 vehicles observed idling 5+ min, 1 idled 8+ min, 1 idled 10+ min, 1 idled 12+ min, 1 idled 12+ min, 1 idled 12+ min, 1 idled 13+ min, 1 idled 20+ min, 1 idled 21+ min and 1 idled 25+ min, total of 136 min of idling
Subtotal					12	18	14	14	29	70	740	129	125	
TOTALS					26	37	34	28	160	200	1986	378	285	
Notes	L o Court Dis	2/ mtss [2.4.7]	1			- 2		7	ئر نئوم لوملون	41,000	2 2 3 3 3 4 3	200		
1. Survey area was the santa Rita School end Vexit toop. Survey takers were assigned specific zones and recorded activity within his or her assigned zone. Therefore, a specific car could have been recorded idling in more than one zone.	ne santa Kita cific car coulo	a scriooi entry/e	orded idling in	rey takers we	one zone	ned spec	IIIC 2011ES	alla leco	ו nen activi	Ly within	IIIs of fiel ass	igned 2011e.		
2. Electric vehicle idiling not included.	iling not inclu	nded.												
3. Idling was only recordeded during the noted survey times. 4. An idling vehicle emits approximately 1.4g of CO2 per second	cordeded du	iring the noted s	CO2 per secor	Jd. Reference	Vande	rbilt pape	r Article 4	1.1. Ther	efore, 166.	.8 kilograr	ns of CO2 en	nission (1.4)	60 x 1986	3. Idling was only recordeded during the noted survey times. 4. An idling vehicle emits approximately 1.4g of CO2 per second. Reference Vanderbilt paper Article 4.1. Therefore. 166.8 kilograms of CO2 emission (1.4 x 60 x 1986 = 166.824) was observed

Idling Survey Results	S													
Blach Middle School														
Revised 04/05/2018														
			Survey Start Survey End		# Cars 1 Min	# Cars 2 Min	# Cars 3	# Cars 4 Min #	# Cars 5+	Survey	Idling Time	Total Vehicles	Total Vehicles Idling 1+	o de la companya de l
	0107777	Monday	14:40	15.30	2			,	Г		1			Sunny, 73F, Note the 5 vehicles observed idling 5+ min, 2 idled 5+min, 1 idled 6+min, 1 idled 18+min, and 1 idled 23+min, 17 total of 57 min of idling
Zone 1	4/2/2018	Monday	14:40				Н	4	ח יי		45		12	Sunny, 73F, Note the 5 vehicles observed idling 5+ min, 2 idled 5+ min, 1 idled 6+ min, and 2 idled 8+ min, total of 32 min of 12 idling
Zone 3	4/2/2018	Monday	14:40		2	Н		H	1		13		5	Sunny, 73F, Note the 1 vehicle observed idling 5+ min, idled for 5+ min
Zone 4	4/2/2018	Monday	14:40	15:30			Н				C			Sunny, 73F
Subtotal					12	/		m	11	20	138	109	35	
Zone 1	4/3/2018	Tuesday	14:45	15:30		9	m	2	2		45		13	Sunny, 70F, Note the 2 vehicles observed idling 5+ min, 1 idled 5+ min, and 1 idled 13 11+ min, total of 16 min of idling
Zone 2	4/3/2018	Tuesday	14:45	15:30	4	4	3	17	2		40		14	Sunny, 70F, Note the 2 vehicles observed idling 5+ min, 1 idled 7+ min, and 1 idled 14 8+ min, total of 15 min of idling
Zone 3	4/3/2018	Tuesday	14:45	15:30		2	2	н	∞		82		13	Sunny, 70F, Note the 8 vehicles observed idling 5+ min, 1 idled 5+ min, 3 idled 6+ min, 1 idled 9+ min, 1 idled 11+ min, 1 idled 12+ min, and 1 idled 13+ min, total 5 of 68 min of idling
Subtotal					4	. 12		4	12	45	167	103	9 40	
Zone 1	4/5/2018	Thursday	14:42	15:24		7			4		26		m	Overcast, 68F, Note the vehicle observed idling 5+ min, idled for 22+ min, total of 22 min of idling.
Zone 2	4/5/2018	Thursday	14:42		2				9		59		ω	Overcast, 68F, Note the 6 vehicles observed idling 5+ min, 1 idled 6+ min, 1 idled 7+ min, 1 idled 10+ min, 1 idled 11+ min, and 2 idled 12+ min, total of 58 min 8 of idling

Idling Survey Results	s													
Blach Middle School														
Revised 04/05/2018	3													
													Total	
					# Cars	# Cars	# Cars	ars			-	Total	Vehicles	
			Survey Start Survey End		1 Min 2	2 Min #	# Cars 3 4 Min		# Cars 5+ St	Survey Ic	Idling Time Vehicles	/ehicles	Idling 1+	
Location	Date	Day	Time	Time		<u>-</u>	Min Idl Idl		Min Idl Ti	Time 0	Observed Waiting		min	Comments
														Overcast, 68F, Note the 2 vehicles
														observed idling 5+ min, 1 idled 8+ min,
										a constitue				and 1 idled 24+ min, total of 32 min of
Zone 3	4/5/2018	Thursday	14:42	15:24	1			1	2		37		4	4 idling
Subtotal					m	2		₩	6	42	122	85	15	
TOTALS					19	21	10	8	32	137	427	297	90	
Notes														
1. Survey area was the Blach Middle School entry/exit loop. Survey takers were assigned specific zones and recorded activity within his or her assigned zone.	the Blach Mic	ddle School entr	y/exit loop. S	urvey takers	were ass.	igned spe	scific zones a	and reco.	rded activ	ity withir	his or her a	ssigned zon	e.	
Therefore, a spe	cific car coule	Therefore, a specific car could have been recorded idling in more than	orded idling ir	ו more than כ	one zone.									
2. Electric vehicle idiling not included.	liling not inch	nded.												
3. Idling was only recordeded during the noted survey times.	scordeded du	rring the noted s	urvey times.											
4. An idling vehicle emits approximately 1.4g of CO2 per second, Reference Vanderbilt paper Article 4.1. Therefore, xxx kilograms of CO2 emission (1.4 x 60 x yyy = zzzzzz) was observed	emits approx	cimately 1.4g of t	CO2 per secor	nd, Reference	Vanderk	ilt pape	. Article 4.1.	Therefo	re, xxx kil.	ograms c	of CO2 emiss	ion (1.4 x 60	x yyy = zz	zzzz) was observed

Idling Survey Results														
Gardner-Bullis School	-													
Revised 04/18/2018														
Location	Date	Бау	Survey Start Survey End Time Time		# Cars 1 Min Idl	# Cars 2 Min Idl	# Cars # Cars 3 4 Min Min Idl Idl		# Cars 5+ Si Min Idl Ti	Survey lo	Idling Time	Total Vehicles Waiting	Total Vehicles Idling 1+ min	Comments
Zone 1	4/16/2018	Monday	14:05	15:15	2	ιν	φ		20		217			Showers, 55F, Note the 20 vehicles observed idling 5+ min, 6 idled 5+min, 3 idled 6+ min, 4 idled 8+ min, 1 idled 11+ min, 1 idled 12+ min, 3 idled 16+ min, and 2 idled 18+ min, total of 187 min of idling
Zone 2	4/16/2018	Monday	14:05	15:15	Ŋ	Ŋ	10		7		122		72	Showers, 55F, Note the 7 vehicles observed idling 5+ min, 1 idled 5+min, 3 idled 11+ min, and 3 idled 13+ min, total 27 of 77 min of idling
Zone 3	4/16/2018	Monday	14:05	15:15			m		10		115		13	Showers, 55F, Note the 10 vehicles observed idling 5+ min, 2 idled 5+min, 1 idled 6+ min, 1 idled 8+ min, 2 idled 9+ min, 1 idled 10+ min, 2 idled 11+ min, and 1 idled 32+ min, total of 106 min of idling
Subtotal					7	10	19		37	70	454	133	73	
Zone 1	4/17/2018	Tuesday	14:25	15:20	ĸ	4	4	m	11		143		25	Sunny, 65F, Note the 11 vehicles observed idling 5+ min, 1 idled 5+ min, 3 idled 6+ min, 1 idled 8+ min, 1 idled 9+ min, 1 idled 25 10+ min, 1 idled 11+ min, 1 idled 14+ min,
Zone 2	4/17/2018	Tuesday	14:25	15:20	2	H	4	7	7		83		21	Sunny, 65F, Note the 7 vehicles observed idling 5+ min, 6 idled 5+ min, and 1 idled 8+ min, total of 38 min of idling
Subtotal					2	5	∞	10	18	55	226	104	46	
Zone 1	4/18/2018	Wednesday	14:30	15:15	4	∞	m	Ω.	13		181		33	Overcast, 58F, Note the 13 vehicles observed idling 5+ min, 4 idled 5+ min, 2 idled 7+ min, 1 idled 8+ min, 1 idled 10+ min, 1 idled 12+ min, 1 idled 13+ min, 1 idled 16+ min, 1 idled 19+ min, 1 idled 19+ min, and 1 idled 33 20+ min, total of 132 min of idling

Idling Survey Results														
Gardner-Bullis School	JC													
Revised 04/18/2018														
							-							
													Total	
					# Cars #	# Cars	#	# Cars				Total	Vehicles	
			Survey Start Survey Enc		1 Min 2 Min		# Cars 3 4 Min		Cars 5+	Survey	#Cars 5+ Survey Idling Time Vehicles	Vehicles	Idling 1+	
Location	Date	Day	Time	Time	Idl	N Ibi	Min Idl Idl		Min Idl	Time	Observed	Waiting	min	Comments
														Overcast, 58F, Note the 13 vehicles
														observed idling 5+ min, 1 idled 7+ min, 4
										NO Action disease				idled 9+ min, 3 idled 10+ min, 4 idled 11+
														min, and 1 idled 18+ min, total of 135 min
Zone 2	4/18/2018	Wednesday	14:30	15:15	3	9			13		150		22	22 of idling
Subtotal					7	14	m	r.C	26	45	331	96	55	
TOTALS					19	29	30	15	81	170	1011	333	174	
Notes														
1. Survey area was the Gardner-Bullis School entry/exit loop. Survey takers were assigned specific zones and recorded activity within his or her assigned zone.	he Gardner-	Bullis School ent	try/exit loop.	Survey taker	s were as:	signed sp	ecific zone	es and re	corded ac	tivity with	hin his or he	r assigned zo	one.	
Therefore, a specific car could have been recorded idling in more than	cific car coul	1 have been reco	orded idling in		one zone.									
2. Electric vehicle idiling not included.	iling not inclu	nded.												
3. Idling was only recordeded during the noted survey times.	cordeded du	ring the noted s	urvey times.											
4. An idling vehicle	emits approx	imately 1.4g of (CO2 per secon	d, Reference	- Vanderb	ilt paper,	Article 4.1	l. There	fore, 85 kil	lograms	of CO2 emiss	ion (1.4 x 60) x 1011 = {	4. An idling vehicle emits approximately 1.4g of CO2 per second, Reference Vanderbilt paper Article 4.1. Therefore, 85 kilograms of CO2 emission (1.4 x 60 x 1011 = 84,924) was observed.

Environmental Commission Green BuildingSubcommittee Report

Commissioners: Halkola, Teksler, Yuan
June 2017

Purpose

To investigate potential voluntary measures the City of Los Altos could encourage in new Residential (single and multi-family) and Commercial buildings.

Background

The State of California has a comprehensive Green Building Standards Code known as CALGreen (Part II of Title 24). This code focuses on measures in five categories; Planning & Design, Energy Efficiency, Water Efficiency & Conservation, Material Conservation & Resource efficiency and Environmental Quality. There is an extensive list of mandatory items required for both residential and non-residential new buildings, effective as of 1/1/17. In addition, there are several other measures that may be adopted by local governments called voluntary Tier I and Tier II measures.

There are also several voluntary rating systems which, prior to CALGreen, cities adopted as their green building code. The Leadership in Energy and Environmental Design (LEED) system developed by the US Green Building Council outlines specific green building practices or design elements in addition to prerequisite practices that builders apply to accrue points toward different levels. While there is a LEED for homes, LEED is typically used to rate larger commercial buildings. The GreenPoint Rated (GPR) system developed by Build It Green has a similar approach to LEED but focuses on residential development, with separate single- and multi-family guidelines. LEED and GPR were adopted by many local jurisdictions to advance green building. The California Green Builder program developed by the California Building Industry Association combines prescriptive measures with performance-based verification.

Focus Measures

Our subcommittee's approach was to focus on measures that would have relatively high and long-term environmental benefits while being less complex to implement and verify. The State already has a goal of achieving Zero Net Energy for all new residential buildings by 2020 and for all commercial buildings by 2030 and has adopted rigorous energy efficiency standards to achieve this. Therefore, the subcommittee did not focus on additional energy efficiency measures, except where they would facilitate less reliance on natural gas and more on electricity, thereby promoting the greatest reduction in carbon emissions since Los Altos' electricity will be carbon-free. We also singled out a few areas that seem to be particularly important given energy and electric vehicle (EV) usage Los Altos, including pool-related measures and increasing EV charging capacity.

Deconstruction

Definition

Disassemble existing buildings for reuse or recycling of building materials instead of demolishing and landfilling building waste.

CALGreen Standards

Requirements and Tier I/II for waste diversion (no requirement for deconstruction).

Mandatory Residential: 60% waste diversion: Tier 1 = 65%, Tier II=75%

Mandatory Non-Residential: 65% diversion.

Fiscal impact. Roughly double cost from demolition; tax credit for donated materials.

Environmental Benefit: Reduced landfill waste and increased reuse of materials.

Recommendation: Require deconstruction for residential constructions and encourage deconstruction for nonresidential constructions.

Cool Roofs/Solar Reflectance Index Alternative (SRI)

Definition

Use roofing materials with a minimum aged solar reflectance and thermal emittance/minimum aged Solar Reflectance Index.

CALGreen Standards

Tier I	Roof Slope < 2:12	Roof Slope > 2:12
Residential	SRI 78	SRI 20
Non-Residential	SRI 64	SRI 16

Fiscal impact: \$0.75-\$1.50 per square foot for cool-roof coating and average yearly net savings of ~ \$0.50 per square foot.*

Environmental Benefit. Reduces building energy use and heat island effect.

Recommendation: Encourage adoption of Tier I.

Solar PV/Water Heating

Definition

Install photovoltaic or solar water heating system.

CALGreen Standards

Residential: Elective Zero Net Energy design (relies on on-site renewable energy generation to achieve zero Energy Design Rating)

Non-Residential: Tier I/II for restaurant install solar water-heating system.

Fiscal impact: Varies depending on size of system and lease vs. purchase options.

Environmental Benefit. Reduces grid electricity and/or gas demand.

^{*}https://www.epa.gov/heat-islands/using-cool-roofs-reduce-heat-islands

Recommendation: Require residential construction to have solar-ready infrastructure – including a dedicated solar zone on the roof of no less than 500 square feet and install conduit extending from roofline and terminating at the electrical panel.

Swimming Pool Measures

Definition

Install automatic pool covers and two-speed/variable speed pool pumps.

CALGreen Standards

Not included in CALGreen

Fiscal impact: Automatic pool covers cost \$5-15 K. Variable speed pumps save an average of \$500 per year in electricity and are a few hundred dollars more expensive to install than single-speed pumps.

Environmental Benefit. Pool covers reduce water evaporation and provide passive heating during summer/warm months. Variable speed pumps reduce pool pump energy use by 50-75%.**

Recommendation: Require installation of automatic pool covers and/or variable speed pool pumps.

100% Electric Buildings

Definition

All energy requirements of building occupants are met with electricity (no natural gas).

CALGreen Standards

Not included in CALGreen

Fiscal impact: Potential for reduced operating cost for building.

Environmental Benefit: Eliminates energy-related carbon emissions by relying solely on carbon-free electricity from SVCE or onsite renewable energy generation.

Recommendation: Require space or water heating to be electric (heat pump). Encourage 100% electric buildings.

Hot Water Recirculation System

Definition

Install demand hot water recirculation system.

Standards

Residential: No mandatory. Voluntary=equipped with demand hot water recirculation system

Fiscal impact: Demand pump ~\$200. (Compared to the cost of continuous recirculation ~\$500 per year in increase water heating and electricity use.)

Environmental Benefit. Energy efficiency and water conservation

Recommendation: Encourage installation of demand (preferably button-hot water recirculation systems) and prohibit continuous recirculation pumps, even those on timers.

^{**} http://www.nrel.gov/docs/fy12osti/54242.pdf

Dual Piping/Graywater Irrigation System

Definitions

- Piping installed to permit future use of graywater irrigation system served by clothes washer or other fixtures.
- Install a graywater collection system for onsite subsurface irrigation using graywater collected from bathtubs, showers, bathroom sinks & laundry water.

CALGreen Standards

Residential: Voluntary measure to install piping or use graywater

Non-Residential: Graywater/rainwater in landscape areas

Fiscal impact: Laundry to Landscape \$1,000-3,000 and ~\$150/year water/sewer savings. Environmental Benefit: Reduce use of potable water and reduce wastewater generation. Recommendation: Encourage installation of dual piping or graywater irrigation system.

EV Charging/Readiness

Definition

Install a dedicated 208/240 branch circuit. Facilitate EV charging capability by installing raceways for future EV supply equipment by pre-installing infrastructure to allow charging stations can be easily added later.

CALGreen Standards

Residential: Tier I/II: dedicated branch circuit.

Non-Residential: Mandatory, varies based on # spaces, Tier I=8% spaces, Tier II=12% *Fiscal impact:*

Environmental Benefit. No direct impact but enables reduced vehicle emissions.

Recommendation: Require Electric vehicle supply equipment (EVSE)-ready outlet or charger or panel capacity and conduit for future installation. Encourage adoption of Tier II non-residential standard.

• Reference: https://www.opr.ca.gov/docs/Example_Building_Codes.docx (sample building codes)

Upgrade Electric Service Panel

Definition

Provide 200 Amp service to home.

CALGreen Standards

Not included in CALGreen

Fiscal impact: ~30% more expensive than 100 Amp service; one-time cost.

Environmental Benefit: No direct impact but accommodates increased EV ownership and demand and enables electrification of home, including additional electric vehicle charging and an increase in the number of heat pumps for space and water heating.

Recommendation: Encourage installation/upgrade to 200 Amp service

Other Measures

Some of the other measures included in CALGreen that we chose not to investigate are listed below.

- Recycled content of building materials (Res Tier 1 = 10%, II=15%)
- Topsoil reuse

- · VOC/Formaldehyde content of flooring/insulation
- Rainwater Catchment (Res voluntary = use rainwater generated on 65% of roof)
- Energy Efficiency
- Water Efficiency (Non-Res Tier I=12%. II=20% savings)
- Eliminate potable water for landscaping (rainwater capture, recycled water, graywater)
- Reduce use of cement (Res Tier I = 20% reduction in foundation, II = 25% reduction)
- Permeable paving (Res Tier I = 20% or greater of hardscape; Tier II = 30%)

Incentives

Following are examples of incentives used by other cities to encourage adoption of voluntary measures:

- Expedited permit processing/Priority permitting
- Fee waivers
- Height/FAR waivers
- Rebates (eg for solar panels)
- City recognition/plaque

Next steps:

- 1. Present report to full Commission for discussion
- 2. Send report to staff for review and comments as to feasibility of measures
- 3. Include in Work Plan report to Council at Joint meeting



333 W El Camino Real, Ste. 290 | Sunnyvale, CA 94087 | SVCleanEnergy.org | 1-844-474-SVCE

Rob Rennie, Chair Town of Los Gatos

Daniel Harney, Vice Chair City of Gilroy

Liz Gibbons City of Campbell

Rod Sinks City of Cupertino

Jeannie Bruins City of Los Altos

Courtenay C. Corrigan Town of Los Altos Hills

Marsha Grilli City of Milpitas

Burton Craig City of Monte Sereno

Steve Tate City of Morgan Hill

Margaret Abe-Koga City of Mountain View

Dave Cortese County of Santa Clara

Howard Miller City of Saratoga

Nancy Smith City of Sunnyvale April 30, 2018

Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, CA 94105

Re: 2018 Climate Protection Grant Program, Reducing GHGs from Existing Buildings

Dear Air District staff,

As a project partner, the [partner name] is pleased to provide this letter of support for Silicon Valley Clean Energy (SVCE)'s proposal in response to the 2018 Climate Protection Grant Program. Our [City/Town] has prioritized reducing fossil fuel usage via beneficial fuel switching. SVCE is playing a critical role, aggregating member agency interests to develop cross-community programs for electrification, including expansion of the heat pump water heater (HPWH) market.

SVCE supplies carbon-free electricity to thirteen member communities in Silicon Valley, resulting in community-wide emissions reductions of approximately 15-20%. Follow-on priorities are electrification in the built environment and transportation. Water heaters powered by fossil fuels now generate approximately 40% of emissions attributable to home energy use.

Many barriers exist that hinder the effort to convert homes from gas-fired water heaters to HPWH, including:

- limited customer awareness
- lack of contractor experience and promotion
- longer installation time
- necessary electrical work
- overall cost

SVCE's proposed initiative addresses these issues in a comprehensive fashion, by:

- establishing a clear value proposition to customer on the benefits of electrification
- providing education and equipment to the contractor community
- addressing first-cost issue through a cost-neutral (vs gas) incentive structure
- supporting permit cost and structure simplifications

As this effort aligns with our carbon reduction goals, we commit to promoting the initiative through our existing channels and supporting additional workshops at our permitting agencies. Further, we will evaluate our HPWH permitting process to ensure a proper balance of safety, simplicity, and pricing.



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Nancy Smith City of Sunnyvale The multi-faceted nature of SVCE's approach will help ensure that the HPWH initiative is successful. By addressing known barriers, the plan is both ambitious and well-grounded. It establishes an important pathway for meeting our long-term commitment to decarbonizing the built environment. In addition, we are heartened by SVCE's effort to address the new construction segment to complement the grant's focus on existing buildings.

As [partner name] already benefits from carbon-free electricity via SVCE, we look forward to contributing on this and additional decarbonization efforts.

Sincerely,

[Name], [Title] [Partner Agency]