



# Energy Conservation Plan2020

## Lien Li Subdivision 4500 Alum Rock Avenue San Jose, California



Prepared by:



CONSULTING ENGINEERS
Saturnino A. Estoque, Jr., P.E.





## **Energy Conservation Plan**

### **EXECUTIVE SUMMARY**

Rev. 0

Date: 02-26-2020

The purpose of this plan is to introduce techniques, equipment, systems, and devices to reduce energy consumption and reduce carbon footprints. Reduced energy demand also contributes in improving the environmental quality. Many of the items mentioned here have already been addressed and are being enforced by the 2019 State of California Energy Code, Title 24 Part 6. This plan will summarize the Energy Code and will discuss other methods and systems to further reduce energy usage.

The first step would to comply with 2019 State of California Energy Code, Title 24 Part 6 when designing the houses. This is required in getting a permit to build.

Secondly, the design of the subdivision shall comply with Part 9. – Solar Access For Subdivision Development of the Santa Clara county.

Complying with State and Local codes and regulations – refer to Appendix A - should take you to the mandatory energy conservation goals. Below are more advance energy conservation tools recommended that the developer can do to conserve more energy and simultaneously clean up the environment.

The location and orientation of the house should be the first consideration for energy efficient homes. Maximize the use of passive solar gain specially when using a solar roofing system while reducing heat gain during summer months. Simple directional and design can make a big difference. Locating and selecting the proper trees will also make a big difference in maximizing solar power.

Planting small deciduous trees (so not cast shadows on the solar roof) on the west and south sides can help provide shade for the building during summer months. On the other hand, in autumn the trees lose their canopies and allow winter sun to heat your home passively.





Air tightness or leakage has an enormous impact on the energy efficiency of any building. Energy efficient homes should have proper sealing of joints, sills, ducts, doors and vents. This will significantly reduce heating costs for the final building.

Clearly, some areas need mechanical ventilation e.g. wet rooms, kitchens, etc. Ventilation systems have become very sophisticated and often include heat recovery technology. Reducing the heat loss from building elements such as walls and floors is mandatory for designing an energy efficient home. A good design of these composite components minimizes the u-Value and R-Value, which provides a passive and long-lasting benefit to the buildings' lifetime costs. There are many energy efficient systems and materials available such as ICFs (Insulated Concrete Forms), thicker wall constructions and roof insulations. Additionally, blown-in foam is also a well-recognized, viable solution.

Traditionally, hot water used to be either generated or stored in a cylinder or a tank. Hot water accounts for around 15-20 percent of most domestic energy bills. When the size of the house, number of occupants and hot water capacity requirements of the home does not dictate the design, consider tankless water technology systems such as combination boilers. A series of combination boilers instead of a large storage tank should provide the volume and supply rate needed for most situations. Additional venting and installation costs would be incurred but, this method of providing instant hot water eliminates storage or standing heat losses in the long run.

Heat recovery should be an integral part of the building design. Technologies such as Flue Gas Heat Recovery (FGHRS) or Wastewater Heat Recovery systems can provide additional cost savings.





### LIST OF ENERGY CONSERVATION TOOLS

- 1. Install Solar-Integrated roofing system. Instead of solar panels built on top of regular roofing materials, these are roof and solar panels in one.
- 2. Specify light-emitting diode bulbs (LEDs). They use anywhere from 25-80% less electricity and last three to 25 times longer than other bulbs.
- 3. Install occupancy sensor switches with manual on-auto/manual off in garage, bathroom, exterior lighting, storage, laundry room and other selected areas. Selected receptacles in the bedroom area may also be connected to the wall motion sensor for lights. These are mandatory in office buildings. These can be permanently by wiring a strategically located receptacle to the room occupancy sensor switch. Another way of encouraging homeowners in saving energy is to include rewarding the new owners with Smart Power Strips
- 4. Furnish appliances with the ENERGY STAR label, which is a federal guarantee that the appliance will consume less energy during use and when on standby than standard non-energy efficient models. Energy savings differ based on the specific appliance. For example, ENERGY STAR certified clothes washers consume 25% less energy and 45% less water than conventional ones, whereas ENERGY STAR refrigerators use only 9% less energy.
- 5. Install photocells and timers on exterior lights. Exterior lights shall be dark sky compliant to minimize light pollution at night.
- 6. A programmable or smart thermostat can be set to automatically turn off or reduce heating and cooling during the times when you are asleep or away. Programmable thermostats can include indicators for when to replace air filters or HVAC system problems, which also improve the efficiency of your heating and cooling system.
- 7. Install mini-split systems. The major advantage of a ductless mini-split is its flexibility in cooling individual rooms or zones. By providing dedicated units to each space, it is easier to meet the varying comfort needs of different rooms.
- 8. Specify Low Flow Shower Head with 1.5 gallons per minute flow.
- 9. Windows are significant source of energy waste, which can amount to 10-25% of your total heating bill. Install double-pane windows. Window shades, shutters, screens, and awnings can also provide an extra layer of insulation from external temperatures.
- 10. Seal up air leaks.
- 11. Install a home energy monitor. Not all monitors are the same. But they all show how much energy an appliance is using, therefore, allowing you to adjust the setting or replace the appliance.
- 12. Specify an electrical meter-main with a dedicated 30 to 60A 240V circuit breaker for an Electric Vehicle charging station.
- 13. Consider a thermal storage phase change material that actively stabilizes interior temperature, absorbing heat when temperature exceeds a desired target and releasing heat when temperature drops below that target. HVAC power consumption is reduced by up to 35%, producing energy savings that rapidly pay back the installed cost of our products.
- 14. Energy efficient toilets provide another excellent way to reduce your energy consumption, this time by saving water. If your toilet was made earlier than 1994, replacing it with a highefficiency model can save you more than 4,000 gallons of water per year.
- 15. Consider rainwater harvesting by collecting the run-off from a structure or other impervious surface in order to store it for later use.





Appendix A

Sec. C12-173.2. - Energy conservation plans

### HYPERLINK TO PRINT SECTION

(a)

Subsequent to October 1, 1980, the design of all minor and major land subdivisions as defined by Section C12-5.20 of Santa Clara County Land Development Regulations shall provide, to the maximum extent feasible, for future passive or natural heating and cooling opportunities in the subdivision. An energy conservation plan shall be submitted with the tentative subdivision map. Such plans shall meet the design objectives of Paragraphs (b) and (c) of this section. The development shall be designed to optimize the number of future buildings receiving sunlight sufficient for using solar energy systems. All proposed structures and vegetation shall be sited to provide solar access to a south wall of the greatest possible number of buildings. To the extent the provision of south wall solar access is not feasible on one or more lots, these lots shall be designed to provide solar access to a south roof.

(b)

Specific passive or natural heating opportunities to be contained in an energy conservation plan shall include, but are not limited to, design of streets, lot size and configuration to permit a maximum number of buildings to be oriented so that south wall and roof areas may face within 25 degrees of due south. To the extent solar access is not impaired, existing vegetation should be used to moderate prevailing winter winds on the site.

(c)

Specific passive or natural cooling opportunities to be contained in an energy conservation plan, to the extent solar access to future buildings is not impaired, include design of lot size and configuration to permit buildings to receive cooling benefits from both prevailing summer breezes and existing shading vegetation.

(d)

For the purposes of this part, "feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors. Such factors include, but are not limited to, contour, orientation, grading, slope stability, tree preservation and access to existing streets. It is the intent of this section that the provision of natural heating and cooling opportunities in subdivision design be included with all other design considerations and be pursued whenever the benefits in terms of energy conservation and the potential for solar energy development are greater than the associated negative impacts. It is not intended that the requirements of this section result in reducing densities, reducing the percentage of a buildable lot area that may be occupied by a structure thereby precluding construction under the applicable zoning in force at the time the tentative map is filed, or cause the unnecessary destruction of existing trees.

(e)

In cases where a proposed building configuration has been developed at the tentative map stage, energy conservation plans shall include a sketch of the approximate shading pattern cast by all remaining and proposed vegetation exceeding, or capable of exceeding, ten feet in height and all structures on December 21 from 9:00 a.m. to 3:00 p.m. Pacific Standard Time. This requirement shall apply to structures and proposed or existing vegetation located within 150 feet and within 45 degrees of due south from any proposed south wall or south roof area. In addition, in order to determine the potential for natural heating and cooling





opportunities on the site, energy conservation plans shall indicate the approximate location and type of all trees, or groups of trees, exceeding, or capable of exceeding, ten feet in height that are located within 100 feet of a proposed structure.

(f)

In cases where a building configuration has not been developed at the tentative map stage, the energy conservation plan shall indicate the extent to which future construction could receive solar access by indicating the approximate location and type of all trees, or groups of trees, exceeding, or capable of exceeding, ten feet in height that are located within the buildable portions of proposed lots or are within 150 feet and within 45 degrees of due south from the southernmost end of the buildable portion of proposed lots. Prior to the effective date of this part, the planning staff shall develop and the Planning Commission shall adopt specific guidelines for preparing energy conservation plans and determining shading patterns.

(g)

Exemptions may be granted by the advisory agency from the design objectives of Paragraph (a), (b) or (c) of this section upon a finding that either:

(1)

Compliance will result in reducing densities below what would normally be allowed by the advisory agency at the time the tentative map is filed without the provisions of this section.

(2)

Compliance is not feasible as defined in Paragraph (d) of this section.

(h)

All applicants requesting an exemption pursuant to this section shall submit a written statement and sufficient supporting documentation with the energy conservation plan describing the basis for the claim. In submitting sufficient supporting documentation pursuant to this section, it is not the intent to require the initial submission of an alternative tentative subdivision map. Subsequent requests for alternative maps may be made as part of the approval process.

(i)

The planning staff shall review any requested exemption and include recommendations as part of the staff report transmitted to the approving agency.

(Ord. No. NS-1203.50, § 2, 4-21-80)

Sec. C12-173.3. - Solar access easements—General requirement.

(a)

In proposed subdivisions where a building configuration has been developed at the tentative map stage, solar access easements created pursuant to this part shall be designed, to the extent feasible, to protect solar access to proposed south roof and south wall areas and any proposed site for a solar energy system. In proposed subdivisions where a building configuration has not been developed at the tentative map stage, solar access easements shall be designed, to the extent feasible, to protect solar access to the southernmost boundary of the buildable portion of a lot. In establishing the dimensions of a solar access easement, consideration shall be given to contour, configuration of the parcel to be divided, existing vegetation and the use of adjacent parcels.

(b)





In cases where a building configuration is specified on the tentative map and upon finding that neither lot size, lot configuration or applicable zoning is sufficient to reasonably protect solar access to a proposed south wall, south roof or any proposed location for a solar energy system, the advisory agency may require the preparation and dedication of solar access easements as a condition of tentative subdivision map approval for any subdivision application containing one or more proposed lots under one acre.

(c)

In cases where a building configuration is not specified at the tentative map state and upon finding that neither lot size, lot configuration or applicable zoning is sufficient to reasonably protect solar access to the southernmost boundary of the buildable portion of the lot, the advisory agency may require the preparation and dedication of solar access easements as a condition of tentative subdivision map approval for any subdivision application containing one or more proposed lots under one acre.

(d)

Solar access easements shall not be required in cases where the lot that would be benefited is equal to or greater than one acre or where solar access is not available due to either existing vegetation, topography or surrounding development, or where other deed restrictions are sufficient to protect solar access. The establishment of a solar access easement is not intended to result in reducing development densities or reducing the percentage of a lot which may be occupied by a structure, or cause the unnecessary destruction of existing trees. The requirements of this section are not applicable to condominium projects which consist of the subdivision of airspace in an existing building where no new structures are proposed.

(e)

Prior to the effective date of this part, the planning staff shall develop and the advisory agency shall adopt guidelines for preparing solar access easements, including a model solar easement form for general use.

(f)

Solar access easements required pursuant to this part shall be recorded with the final subdivision map with the County Recorder.

(g)

The provisions of this section shall be effective on October 1, 1980.

(Ord. No. NS-1203.50, § 2, 4-21-80)

Sec. C12-173.31. - Same—Contents.

All solar access easements required pursuant to this part shall provide for the following:

(a)

A description of the solar access easement in terms of specific area(s) on benefited property to which solar access is to be protected and a statement specifying that no structure, vegetation or land use shall cast a shadow so as to impede the passage of direct sunlight to more than ten percent of a protected area on a benefited property between 9:00 a.m. and 3:00 p.m. on December 21 or on any other date approved by the advisory agency. For purposes of this section, the easement shall protect and it shall be sufficient to describe only those specific areas on benefited property that would limit the height of structures and vegetation to under 50 feet on the burdened property in order to protect solar access.

(b)

The burdens and benefits of the solar access easement as being transferable and running with the land to subsequent grantees.





(c)

The solar access easement may be revised or terminated pursuant to Paragraph (e) of this section or by a modification in writing that is signed by all benefited and burdened property owners and recorded with the County Recorder. Said right of modification in writing shall not apply to the initial grantor of the easement.

(d)

A diagram of the burdened property indicating in a manner easily understood by nontechnical persons the approximate height restrictions up to and including 50 feet on the property necessary to protect solar access to specific areas on benefited property.

(e)

(1)

Because a solar access easement is not intended to unnecessarily burden properties, a statement shall be included specifying that subsequent to the development of a benefited property, restrictions on structures, vegetation and land uses due to a recorded solar access easement on a burdened property not required to protect solar access to a south wall or south roof or the site of a solar energy system shall be void and unenforceable provided a revised solar access easement signed by all affected benefited and burdened parties and a revised diagram pursuant to this section have been recorded with the County Recorder. The easement shall also contain a statement that upon refusal of an affected party to sign the modified solar access easement any other affected party may bring an action in court to determine what modification if any should be made to the easement and that costs of suit may be awarded to the prevailing party. This provision (e)(1) is not intended to and shall not increase the area burdened by any solar access easement on any property.

(2)

In cases where applicable, zoning in force at the time the solar access easement is recorded would allow the construction of only one principal structure on the benefited property, the provisions of (e)(1) shall apply subsequent to final approval of the building permit for the principal structure or any detached solar energy system constructed on the benefited property at the same time as the principal structure.

(3)

In cases where applicable zoning in force at the time the solar access easement is recorded would allow the construction of more than one principal structure on the benefited property, the provisions of (e)(1) shall apply subsequent to approval of a complete development plan for the benefited property that indicates the future location of all principal structures and the site of any detached solar energy system.





## Part 9. - Solar Access for Subdivision Development

Sec. C12-173. - Intent.

It is the intent of this part to implement and enforce the requirements of the California Solar Rights Act, that the design of all subdivisions for which a tentative map is required shall demonstrate the use of natural heating and cooling opportunities to the maximum extent feasible and that the dedication of solar easements may be required as a condition of tentative map approval for new parcels in order to protect solar access. It is intended that the provisions of this part shall prevail over any other provisions of this Ordinance Code which may conflict with any of the requirements herein. No tentative subdivision map shall be approved after the effective date of this part unless the provisions of this part are met.

(Ord. No. NS-1203.50, § 2, 4-21-80)

Sec. C12-173.1. - Definitions.

The following definitions shall apply to this part:

Solar energy system:

(1)

(a)

Any solar collector or other solar energy device whose primary purpose is to provide for the collection, storage and distribution of solar energy for space heating, cooling or hot water heating; or

(2)

Any structural design feature of the building whose primary purpose is to provide for the collection, storage and distribution of solar energy for space heating, cooling or hot water heating.

(b)

Solar access: For purposes of this part, "solar access" shall mean any of the following:

(1)

The provision of direct sunlight to a south wall and/or south roof of a principal structure from 9:00 a.m. to 3:00 p.m. Pacific Standard Time on December 21 sufficient for the effective use of a solar energy system.

(2)

The provision of direct sunlight to a solar energy system from 9:00 a.m. to 3:00 p.m. Pacific Standard Time on December 21.

(3)

The provision of direct sunlight to the southernmost end of the buildable portion of a lot from 9:00 a.m. to 3:00 p.m. Pacific Standard Time on December 21.

(c)

Solar easement: The right of receiving direct sunlight across the real property of another to protect solar access.

(d)





Burdened property: Property for which development restrictions are placed, or proposed, in order to protect solar access to benefited property.

(e)

Benefited property: Property for which solar access protection is granted or proposed.

(f)

South wall: A southern wall area of a principal structure facing within 45 degrees of due south. In the event wall areas are located 45 degrees from south, the south wall shall be defined as the wall area facing southwest.

(g)

South roof: A southernmost roof area of a principal structure facing within 45 degrees of due south. In the event roof areas are located 45 degrees from south, the south roof shall be defined as the roof area facing southwest.

(h)

Due south: The direction of the south terrestrial pole.

(Ord. No. NS-1203.50, § 2, 4-21-80)

Sec. C12-173.2. - Energy conservation plans.

(a)

Subsequent to October 1, 1980, the design of all minor and major land subdivisions as defined by Section C12-5.20 of Santa Clara County Land Development Regulations shall provide, to the maximum extent feasible, for future passive or natural heating and cooling opportunities in the subdivision. An energy conservation plan shall be submitted with the tentative subdivision map. Such plans shall meet the design objectives of Paragraphs (b) and (c) of this section. The development shall be designed to optimize the number of future buildings receiving sunlight sufficient for using solar energy systems. All proposed structures and vegetation shall be sited to provide solar access to a south wall of the greatest possible number of buildings. To the extent the provision of south wall solar access is not feasible on one or more lots, these lots shall be designed to provide solar access to a south roof.

(b)

Specific passive or natural heating opportunities to be contained in an energy conservation plan shall include, but are not limited to, design of streets, lot size and configuration to permit a maximum number of buildings to be oriented so that south wall and roof areas may face within 25 degrees of due south. To the extent solar access is not impaired, existing vegetation should be used to moderate prevailing winter winds on the site.

(c)

Specific passive or natural cooling opportunities to be contained in an energy conservation plan, to the extent solar access to future buildings is not impaired, include design of lot size and configuration to permit buildings to receive cooling benefits from both prevailing summer breezes and existing shading vegetation.

(d)

For the purposes of this part, "feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors. Such factors include, but are not limited to, contour, orientation, grading, slope stability, tree preservation and access to existing streets. It is the intent of this section that the provision of natural heating and cooling opportunities in subdivision design be included with all other design considerations and be pursued whenever





the benefits in terms of energy conservation and the potential for solar energy development are greater than the associated negative impacts. It is not intended that the requirements of this section result in reducing densities, reducing the percentage of a buildable lot area that may be occupied by a structure thereby precluding construction under the applicable zoning in force at the time the tentative map is filed, or cause the unnecessary destruction of existing trees.

(e)

In cases where a proposed building configuration has been developed at the tentative map stage, energy conservation plans shall include a sketch of the approximate shading pattern cast by all remaining and proposed vegetation exceeding, or capable of exceeding, ten feet in height and all structures on December 21 from 9:00 a.m. to 3:00 p.m. Pacific Standard Time. This requirement shall apply to structures and proposed or existing vegetation located within 150 feet and within 45 degrees of due south from any proposed south wall or south roof area. In addition, in order to determine the potential for natural heating and cooling opportunities on the site, energy conservation plans shall indicate the approximate location and type of all trees, or groups of trees, exceeding, or capable of exceeding, ten feet in height that are located within 100 feet of a proposed structure.

(f)

In cases where a building configuration has not been developed at the tentative map stage, the energy conservation plan shall indicate the extent to which future construction could receive solar access by indicating the approximate location and type of all trees, or groups of trees, exceeding, or capable of exceeding, ten feet in height that are located within the buildable portions of proposed lots or are within 150 feet and within 45 degrees of due south from the southernmost end of the buildable portion of proposed lots. Prior to the effective date of this part, the planning staff shall develop and the Planning Commission shall adopt specific guidelines for preparing energy conservation plans and determining shading patterns.

(g)

Exemptions may be granted by the advisory agency from the design objectives of Paragraph (a), (b) or (c) of this section upon a finding that either:

(1)

Compliance will result in reducing densities below what would normally be allowed by the advisory agency at the time the tentative map is filed without the provisions of this section.

(2)

Compliance is not feasible as defined in Paragraph (d) of this section.

(h)

All applicants requesting an exemption pursuant to this section shall submit a written statement and sufficient supporting documentation with the energy conservation plan describing the basis for the claim. In submitting sufficient supporting documentation pursuant to this section, it is not the intent to require the initial submission of an alternative tentative subdivision map. Subsequent requests for alternative maps may be made as part of the approval process.

(i)

The planning staff shall review any requested exemption and include recommendations as part of the staff report transmitted to the approving agency.

(Ord. No. NS-1203.50, § 2, 4-21-80)





Sec. C12-173.3. - Solar access easements—General requirement.

(a)

In proposed subdivisions where a building configuration has been developed at the tentative map stage, solar access easements created pursuant to this part shall be designed, to the extent feasible, to protect solar access to proposed south roof and south wall areas and any proposed site for a solar energy system. In proposed subdivisions where a building configuration has not been developed at the tentative map stage, solar access easements shall be designed, to the extent feasible, to protect solar access to the southernmost boundary of the buildable portion of a lot. In establishing the dimensions of a solar access easement, consideration shall be given to contour, configuration of the parcel to be divided, existing vegetation and the use of adjacent parcels.

(b)

In cases where a building configuration is specified on the tentative map and upon finding that neither lot size, lot configuration or applicable zoning is sufficient to reasonably protect solar access to a proposed south wall, south roof or any proposed location for a solar energy system, the advisory agency may require the preparation and dedication of solar access easements as a condition of tentative subdivision map approval for any subdivision application containing one or more proposed lots under one acre.

(c)

In cases where a building configuration is not specified at the tentative map state and upon finding that neither lot size, lot configuration or applicable zoning is sufficient to reasonably protect solar access to the southernmost boundary of the buildable portion of the lot, the advisory agency may require the preparation and dedication of solar access easements as a condition of tentative subdivision map approval for any subdivision application containing one or more proposed lots under one acre.

(d)

Solar access easements shall not be required in cases where the lot that would be benefited is equal to or greater than one acre or where solar access is not available due to either existing vegetation, topography or surrounding development, or where other deed restrictions are sufficient to protect solar access. The establishment of a solar access easement is not intended to result in reducing development densities or reducing the percentage of a lot which may be occupied by a structure, or cause the unnecessary destruction of existing trees. The requirements of this section are not applicable to condominium projects which consist of the subdivision of airspace in an existing building where no new structures are proposed.

(e)

Prior to the effective date of this part, the planning staff shall develop and the advisory agency shall adopt guidelines for preparing solar access easements, including a model solar easement form for general use.

(f)

Solar access easements required pursuant to this part shall be recorded with the final subdivision map with the County Recorder.

(g)

The provisions of this section shall be effective on October 1, 1980.

(Ord. No. NS-1203.50, § 2, 4-21-80)

Sec. C12-173.31. - Same—Contents.





All solar access easements required pursuant to this part shall provide for the following:

(a)

A description of the solar access easement in terms of specific area(s) on benefited property to which solar access is to be protected and a statement specifying that no structure, vegetation or land use shall cast a shadow so as to impede the passage of direct sunlight to more than ten percent of a protected area on a benefited property between 9:00 a.m. and 3:00 p.m. on December 21 or on any other date approved by the advisory agency. For purposes of this section, the easement shall protect and it shall be sufficient to describe only those specific areas on benefited property that would limit the height of structures and vegetation to under 50 feet on the burdened property in order to protect solar access.

(b)

The burdens and benefits of the solar access easement as being transferable and running with the land to subsequent grantees.

(c)

The solar access easement may be revised or terminated pursuant to Paragraph (e) of this section or by a modification in writing that is signed by all benefited and burdened property owners and recorded with the County Recorder. Said right of modification in writing shall not apply to the initial grantor of the easement.

(d)

A diagram of the burdened property indicating in a manner easily understood by nontechnical persons the approximate height restrictions up to and including 50 feet on the property necessary to protect solar access to specific areas on benefited property.

(e)

(1)

Because a solar access easement is not intended to unnecessarily burden properties, a statement shall be included specifying that subsequent to the development of a benefited property, restrictions on structures, vegetation and land uses due to a recorded solar access easement on a burdened property not required to protect solar access to a south wall or south roof or the site of a solar energy system shall be void and unenforceable provided a revised solar access easement signed by all affected benefited and burdened parties and a revised diagram pursuant to this section have been recorded with the County Recorder. The easement shall also contain a statement that upon refusal of an affected party to sign the modified solar access easement any other affected party may bring an action in court to determine what modification if any should be made to the easement and that costs of suit may be awarded to the prevailing party. This provision (e)(1) is not intended to and shall not increase the area burdened by any solar access easement on any property.

(2)

In cases where applicable, zoning in force at the time the solar access easement is recorded would allow the construction of only one principal structure on the benefited property, the provisions of (e)(1) shall apply subsequent to final approval of the building permit for the principal structure or any detached solar energy system constructed on the benefited property at the same time as the principal structure.

(3)

In cases where applicable zoning in force at the time the solar access easement is recorded would allow the construction of more than one principal structure on the benefited property, the provisions of (e)(1) shall apply subsequent to approval of a complete development plan for the benefited property that indicates the future location of all principal structures and the site of any detached solar energy system.





Chapter 9 of 2019 California Mechanical Code is adopted with the following amendments:

(a)

A new section, Section 939.0 (Single Pass Cooling Systems), is added to read as follows:

*939.0. Single Pass Cooling Systems.* The installation or use of any new single pass cooling system that circulates water only once to cool equipment before disposing the water is prohibited.