ORDINANCE NO. ______________


The Board of Supervisors of the County of Los Angeles ordains as follows:

SECTION 1. Chapters 2 through 8, Appendix A4, and Appendix A5, which incorporate by reference and modify portions of the 2016 California Green Building Standards Code, are hereby repealed.

SECTION 2. Section 100 is hereby amended to read as follows:

100 ADOPTION BY REFERENCE

Except as hereinafter changed or modified, Sections 102 through 119 of Chapter 1 of Title 26 of the Los Angeles County Code are adopted and incorporated, by reference, into this Title 31 as if fully set forth below, and shall be known as Sections 102 through 119 of Chapter 1 of Title 31 of the Los Angeles County Code.

Except as hereinafter changed or modified, Chapters 2 through 8, Appendix A4 and Appendix A5, of that certain code known and designated as the 2016 California Green Building Standards Code, as published by the California Building Standards Commission, are adopted and incorporated, by reference, into this Title 31 as if fully set forth below, and shall be known as Chapters 2 through 8, Appendix A4 and Appendix A5, of Title 31 of the Los Angeles County Code.
A copy of the 20162019 California Green Building Standards Code shall be at all times maintained by the Building Official for use and examination by the public.

SECTION 3. Section 202 is hereby amended to read in alphabetical order as follows:

202 DEFINITIONS

... 

COOL ROOF. A roofing material with high thermal emittance and high solar reflectance, or low thermal emittance and exceptionally high solar reflectance as specified in Title 24, Part 6, California Administrative Code, that reduces heat gain through the roof.

COOL ROOF RATING COUNCIL or CRRC. The entity recognized by the California Energy Commission to rate and certify the reflectance and emittance values of roofing products.

DEVELOPMENT. Any activity requiring discretionary or non-discretionary land use or construction approval from the County that results in the creation, addition, modification, or replacement of impervious surface area, which replacement is not part of routine maintenance activity. Development includes, but is not limited to, land subdivisions; the construction, installation, addition, or replacement of a building or structure; expansion of a building footprint; and land-disturbing activities related to structural or impervious surfaces. Development shall not include routine maintenance of original lines and grades and/or hydraulic capacity.

...
SECTION 4. Section 301 is hereby amended to read as follows:

301 GENERAL

301.1 Scope.

Buildings and structures shall be designed to include the green building measures indicated in Sections 301.1.1, 301.2, and 301.3 specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county or city and county as specified in Section 101.7.

301.1.1 Additions and alterations

[HCD]

Residential construction.

The mandatory provisions of Chapter 4 shall be applied to newly constructed low-rise and high-rise residential buildings and structures six stories or less and additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume or size. The requirements shall apply only to and/or within the specified area of the addition or alteration.

Newly constructed high-rise residential buildings of seven stories or greater shall comply with Section 301.3.

...
301.3.3 Nonresidential buildings greater than or equal to 25,000 square feet.

In addition to the requirements of Section 301.3, any newly constructed nonresidential building greater than or equal to 25,000 square feet shall comply with all requirements of Section A5.601.2.4 Tier 1. Roofing materials shall comply with Tier 2 requirements of Table A5.106.11.2.3 [BSC].

Exceptions:

1. Compliance with Section A5.601.2.3 shall be voluntary.

2. High-rise residential buildings of seven stories or greater shall comply with Table A4.106.5.1(4) in lieu of Table A5.106.11.2.3.

SECTION 5. Section 4.106.4.1 is hereby amended to read as follows:

4.106.4.1 New one-and two-family dwellings and townhouses with attached private garages. Constituent

For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box, or other enclosure attachment plug in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.
4.106.4.1.1 Identification.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

4.106.4.2 New multifamily dwellings.

If residential parking is available, thirty-five (35) percent of the total parking spaces on a building site shall be electric vehicle charging spaces (EV spaces) and electric vehicle charging stations (EVCS), as follows: ten (10) twenty-five (25) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE and ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be EVCS. Calculations for the required number of EV spaces and EVCS shall be rounded up to the nearest whole number.

Exceptions:

EVCS shall not be required, and the number of required EV spaces capable of supporting future EVSE is permitted to be calculated as ten (10) percent of the number of parking spaces, for the following uses:

1. Affordable housing.
2. Multifamily dwellings containing less than 17 units.

...
4.106.4.3  New hotels and motels.

All newly constructed hotels and motels shall provide EV spaces capable of supporting future installation of EVSE and EVCS. The construction documents shall identify the location of the EV spaces and EVCS.

Notes:

1. Construction documents are intended to demonstrate the project’s capability and capacity for facilitating future EV charging.
2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

4.106.4.3.1  Number of required EV spaces and EVCS.

The number of required EV spaces and EVCS shall be based on the total number of parking spaces provided for all type of parking facilities in accordance with Table 4.106.4.3.1. Calculation for the required number of EV spaces and EVCS shall be rounded up to the nearest whole number. Required EVSE/EVCS shall be Level 2 or Level 3 (DC Fast Charge).
TABLE 4.106.4.3.1

<table>
<thead>
<tr>
<th>TOTAL NUMBER OF PARKING SPACES</th>
<th>NUMBER OF REQUIRED EV SPACES</th>
<th>NUMBER OF REQUIRED EVCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10-25</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>26-50</td>
<td>27</td>
<td>2</td>
</tr>
<tr>
<td>51-75</td>
<td>413</td>
<td>3</td>
</tr>
<tr>
<td>76-100</td>
<td>519</td>
<td>4</td>
</tr>
<tr>
<td>101-150</td>
<td>726</td>
<td>6</td>
</tr>
<tr>
<td>151-200</td>
<td>1038</td>
<td>8</td>
</tr>
<tr>
<td>201 and over</td>
<td>625 percent of total</td>
<td>5 percent of total</td>
</tr>
</tbody>
</table>

SECTION 6.  Section 4.106.5 is hereby added to read as follows:

4.106.5 Low-impact development (LID).

New development or alterations to existing developed sites shall comply with Chapter 12.84 of Title 12 of the Los Angeles County Code.

SECTION 7.  Section 4.106.6 is hereby added to read as follows:

4.106.6 Cool roof for reduction of heat island effect.

Roofing materials shall comply with the solar reflectance and thermal emittance requirements of this section.

Exceptions:

1. Roof repair.

2. Roof replacement when the roof area being replaced is equal to or less than fifty (50) percent of the total roof area.

3. Installation of building-integrated photovoltaics.

4. Installation of a steep-sloped roof (roof slope > 2:12) in climate zone 16 on other than a low-rise multifamily building.
5. Additions resulting in less than 500 square feet of added roof area or less than fifty (50) percent of the total roof area, whichever is greater.

6. Roof construction that has a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot.

4.106.6.1 Solar reflectance.

Roofing materials shall have a minimum 3-year aged solar reflectance equal to or greater than the values specified in Table 4.106.6(1) and Table 4.106.6(2).

Solar reflectance values shall be based on the aged reflectance value of the roofing product or the equation in Section A4.106.5.1 if the CRRC testing for aged solar reflectance is not available.

4.106.6.2 Thermal emittance.

Roofing materials shall have a CRRC initial or aged thermal emittance equal to or greater than the values specified in Table 4.106.6(1) and Table 4.106.6(2).

4.106.6.3 Solar reflectance index alternative.

Roofing materials having a Solar Reflectance Index (SRI) equal to or greater than the values specified in Table 4.106.6(1) and Table 4.106.6(2) may be used as an alternative to compliance with the 3-year aged solar reflectance and thermal emittance values.

SRI values used to comply with this section shall be calculated using the SRI Calculation Worksheet (SRI-WS) developed by the California Energy Commission or in compliance with ASTM E1980-01 as specified in the current California Energy Code. Solar reflectance values used in the SRI-WS shall be based on the aged reflectance
value of the roofing product or the equation in Section A4.106.5.1 if the CRRC-certified aged solar reflectance is not available. Certified thermal emittance used in the SRI-WS may be either the initial value or the aged value listed by the CRRC.

SECTION 8. Tables 4.106.6(1) and 4.106.(2) are hereby added to read as follows:

**TABLE 4.106.6(1) – LOW-RISE RESIDENTIAL**

<table>
<thead>
<tr>
<th>ROOF SLOPE</th>
<th>MINIMUM 3-YEAR AGED SOLAR REFLECTANCE</th>
<th>THERMAL EMITTANCE</th>
<th>SRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤2:12</td>
<td>0.65</td>
<td>0.85</td>
<td>78</td>
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<tr>
<td>&gt;2:12</td>
<td>0.25</td>
<td>0.85</td>
<td>20</td>
</tr>
</tbody>
</table>

**TABLE 4.106.6(2) – HIGH RISE RESIDENTIAL BUILDINGS, HOTELS AND MOTELS**

<table>
<thead>
<tr>
<th>ROOF SLOPE</th>
<th>MINIMUM 3-YEAR AGED SOLAR REFLECTANCE</th>
<th>THERMAL EMITTANCE</th>
<th>SRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤2:12</td>
<td>0.65</td>
<td>0.75</td>
<td>78</td>
</tr>
<tr>
<td>&gt;2:12</td>
<td>0.25</td>
<td>0.75</td>
<td>20</td>
</tr>
</tbody>
</table>

SECTION 9. Section 4.303.1.4.4 is hereby amended to read as follows:

**4.303.1.4.4 Kitchen faucets.** The maximum flow rate of kitchen faucets shall not exceed 1.8 1.5 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 1.5 gallons per minute at 60 psi.
Exception: Buildings that have water closets with a maximum flush rate of 1.06 gallons per flush installed throughout shall be permitted to install kitchen faucets that have a maximum flow rate of 1.8 gallons per minute at 60 psi.

SECTION 10. Section 4.408 is hereby amended to read as follows:

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

4.408.1 Construction waste management.

Newly-constructed projects and additions and alterations to existing buildings shall recycle and/or salvage for reuse a minimum of sixty-five (65) percent of the non-hazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance, whichever is more stringent. Calculate the amount of materials diverted by weight or by volume, but not by both.

... 

SECTION 11. Section 5.106.3 is hereby added to read as follows:

5.106.3 Low-impact development (LID).

New development or alterations to existing developed sites shall comply with Chapter 12.84 of Title 12 of the Los Angeles County Code.

SECTION 12. Section 5.106.5.3.3 is hereby amended to read as follows:

5.106.5.3.3 EV charging space and charging station calculation [N].
Table 5.106.5.3.3 shall be used to determine if single or multiple charging space requirements apply for the number of required EV charging spaces capable of supporting future installation of EVSE and EVCS. Calculations for the required number of EV charging spaces and EVCS shall be rounded up to the nearest whole number.

Required EVSE/EVCS shall be Level 2 or Level 3 (DC Fast Charge).

... 

SECTION 13. Table 5.106.5.3.3 is hereby amended to read as follows:

<table>
<thead>
<tr>
<th>TOTAL NUMBER OF ACTUAL PARKING SPACES</th>
<th>NUMBER OF REQUIRED EV SPACES</th>
<th>NUMBER OF REQUIRED EVCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>0</td>
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<td>10-25</td>
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</tr>
<tr>
<td>26-50</td>
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<td>2</td>
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<tr>
<td>51-75</td>
<td>413</td>
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</tr>
<tr>
<td>76-100</td>
<td>519</td>
<td>4</td>
</tr>
<tr>
<td>101-150</td>
<td>726</td>
<td>6</td>
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<tr>
<td>151-200</td>
<td>1038</td>
<td>8</td>
</tr>
<tr>
<td>201 and over</td>
<td>625 percent of total</td>
<td>5 percent of total</td>
</tr>
</tbody>
</table>

SECTION 14. Section 5.106.11 is hereby added to read as follows:

5.106.11 Cool roof for reduction of heat island effect.

Roofing materials shall comply with the solar reflectance and thermal emittance requirements of this section.

Exceptions:

1. Roof repair.
2. Roof replacement when the roof area being replaced is equal to or less than fifty (50) percent of the total roof area.

3. Installation of building-integrated photovoltaics.

4. Additions resulting in less than 500 square feet of added roof area or less than fifty (50) percent of the total roof area, whichever is greater.

5. Roof construction that has a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot.

5.106.11 Solar reflectance.

Roofing materials shall have a minimum 3-year aged solar reflectance equal to or greater than values specified in Table 5.106.11.

Solar reflectance values shall be based on the aged reflectance value of the roofing product or the equation in Section A5.106.11.2.1 if the CRRC testing for aged solar reflectance is not available.

5.106.11.2 Thermal emittance.

Roofing material shall have a CRRC initial or aged thermal emittance equal to or greater than the values specified in Table 5.106.11.

5.106.11.3 Solar reflectance index alternative.

Roofing material having an SRI equal to or greater than the values specified in Table 5.106.11 may be used as an alternative to compliance with the 3-year aged solar reflectance and thermal emittance values.

SRI values used to comply with this section shall be calculated using the SRI Calculation Worksheet (SRI-WS) developed by the California Energy Commission or in
compliance with ASTM E1980-01 as specified in the current California Energy Code. Solar reflectance values used in the SRI-WS shall be based on the aged reflectance value of the roofing product or the equation in Section A5.106.11.2.1 if the CRRC-certified aged solar reflectance is not available. Certified thermal emittance used in the SRI-WS may be either the initial value or the aged value listed by the CRRC.

SECTION 15. Section 5.106.11 is hereby added to read as follows:

TABLE 5.106.11

<table>
<thead>
<tr>
<th>ROOF SLOPE</th>
<th>MINIMUM 3-YEAR AGED SOLAR REFLECTANCE</th>
<th>THERMAL EMITTANCE</th>
<th>SRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤2:12</td>
<td>0.68</td>
<td>0.85</td>
<td>82</td>
</tr>
<tr>
<td>&gt;2:12</td>
<td>0.28</td>
<td>0.85</td>
<td>27</td>
</tr>
</tbody>
</table>

SECTION 16. Section 5.408 is hereby amended to read as follows:

5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

5.408.1 Construction waste management.

Newly-constructed projects and additions and alterations to existing buildings shall recycle and/or salvage for reuse a minimum of sixty-five (65) percent of the non-hazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent. Calculate the amount of materials diverted by weight or volume, but not by both.
SECTION 17. Appendix A4 is hereby amended to read as follows:

APPENDIX A4

RESIDENTIAL VOLUNTARY MEASURES

Some of the measures contained in this appendix are not mandatory unless adopted by a city, county or city and county as specified in Section 101.7 and provide additional measures that except to the extent indicated elsewhere in this Code. Designers, builders, and property owners may wish to consider all of these measures during the planning, design, and construction process.

SECTION 18. Section A4.108.1 is hereby amended to read as follows:

A4.108.1 Innovative concepts and local environmental conditions.

The provisions of this Code are not intended to prevent the use of any alternate material, appliance, installation, device, arrangement, method, design, or method of construction not specifically prescribed by this Code. This code does not limit the authority of city, county, or city and county government to make necessary changes to the provisions contained in this code pursuant to Section 101.7.1.

SECTION 19. Section A4.306.1 is hereby amended to read as follows:

A4.306.1 Innovative concepts and local environmental conditions.

The provisions of this Code are not intended to prevent the use of any alternate material, appliance, installation, device, arrangement, method, design, or method of construction not specifically prescribed by this Code. This code does not limit the authority of city, county, or city and county government to make necessary changes to the provisions contained in this code pursuant to Section 101.7.1.
SECTION 20. Section A4.411.1 is hereby amended to read as follows:

A4.411.1 Innovative concepts and local environmental conditions.

The provisions of this code are not intended to prevent the use of any alternate material, appliance, installation, device, arrangement, method, design, or method of construction not specifically prescribed by this code. This code does not limit the authority of city, county, or city and county government to make necessary changes to the provisions contained in this code pursuant to Section 101.7.1.

SECTION 21. Section A4.509.1 is hereby amended to read as follows:

A4.509.1 Innovative concepts and local environmental conditions.

The provisions of this code are not intended to prevent the use of any alternate material, appliance, installation, device, arrangement, method, design, or method of construction not specifically prescribed by this code. This code does not limit the authority of city, county, or city and county government to make necessary changes to the provisions contained in this code pursuant to Section 101.7.1.

SECTION 22. Section A4.601.1 is hereby amended to read as follows:

A4.601.1 Scope.

The measures contained in this appendix are not mandatory unless adopted by a city, county, or city and county as specified in Section 101.7 except to the extent indicated elsewhere in this Code. The provisions of this section outline means of achieving enhanced construction or reach levels by incorporating additional green building measures. In order to meet one of the tier levels designers, builders or
property owners are required to incorporate additional green building measures necessary to meet the threshold of each level.

**SECTION 23.** Section A4.601.2 is hereby amended to read as follows:

**A4.601.2 Prerequisite measures.**

Tier 1 and Tier 2 thresholds require compliance with the mandatory provisions of this Code and incorporation of the required prerequisite measures listed in Section A4.601.4.2 for Tier 1 and A4.601.5.2 for Tier 2. Prerequisite measures are also identified in the Residential Occupancies Application Checklist in Section A4.602.

As specified in Section 101.7, additional prerequisite measures may be included by the enforcing agency to address specific local environmental conditions and may be listed in the Innovative Concepts and Local Environmental Conditions portions of the checklist.

**SECTION 24.** Section A4.602 is hereby amended to read as follows:

**RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST**

...  

1 Green building measures listed in this table may be mandatory if adopted by a city, county, or city and county as specified in Section 101.7. *Reserved.*

...  

**SECTION 25.** Section A4.701.1 is hereby amended to read as follows:

**A4.701.1 General.**
The voluntary measures of this Code are designed and promulgated to be adopted by reference and made mandatory by local ordinance pursuant to Section 101.7. Jurisdictions wishing to adopt the voluntary provisions of this Code as an enforceable regulation governing structures and premises should ensure that certain factual information is included in the adopting ordinance and that the measures are appropriate and achievable and are considered to be suitable as mandatory by the city, county, or city and county. The following sample adoption ordinance addresses several key elements of a code adoption ordinance, including the information required for insertion into the Code text.

...  

SECTION 26. The Appendix A5 heading is hereby amended to read as follows:

APPENDIX A5

NON-RESIDENTIAL VOLUNTARY MEASURES

The measures contained in this appendix are not mandatory unless adopted by a city, county, or city and county as specified in Section 101.7 and provide additional measures except to the extent indicated elsewhere in this Code. Designers, builders and property owners may wish are encouraged to consider all of these measures during the planning, design, and construction process.

SECTION 27. Section A5.601.1 is hereby amended to read as follows:

A5.601.1 Scope.
The measures contained in this appendix are not mandatory unless adopted by local government as specified in Section 101.7 except to the extent indicated elsewhere in this Code. The provisions of this Section outline means of achieving enhanced construction or reach levels by incorporating additional green building measures for newly constructed nonresidential buildings as well as additions and alterations. In order to meet one of the tier levels designers, builders or property owners are required to incorporate additional green building measures necessary to meet the threshold of each level. Refer to the provisions in Section 301.3 for non-residential additions and alterations construction scope and application.