



STANDARD NOTES NON-RESIDENTIAL CONSTRUCTION 2022 CALIFORNIA GREEN BUILDING STANDARDS (4.1)

[Effective July 1, 2024]

Applies to **Newly Constructed Non-residential Buildings and associated site development, initial tenant improvements regardless of valuation, and any subsequent addition of 1,000 square feet or more, or tenant improvement having a valuation of \$200,000 and associated site development.** The following standard notes shall be completed and incorporated into the approved plans and all effected design features and specifications shall be made to conform.

INSTRUCTIONS: Designer to place an "X" preceding each applicable section and complete the notes or indicate "N/A" if not applicable. Building plan check shall be responsible for verification except for those items preceded by a [P] which will be verified by Planning. All provisions generally apply to new construction and additions of 1,000 square feet or more, or tenant improvements having a valuation of \$200,000. An [N], however, indicates a provision applies only to new construction, an [E] indicates a provision that applies to new construction and provides additional qualifiers for when the provision applies to an addition or tenant improvement.

STANDARDS

BICYCLE PARKING CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBSC) Section 5.106.4

[E] Short term bicycle parking applies to new or existing facilities if the project is expected to generate visitor traffic and adds 10 or more vehicular parking spaces.

Check the appropriate box and provide complete input for each selection as applicable:

_____ [P] Short-term bicycle parking (bicycle racks) are provided to accommodate anticipated visitor traffic. The total number provided is: _____. These racks are located within 200 feet of the visitor's entrance as depicted on plan sheet: _____.

[E] Long term bicycle parking applies to new shell buildings, and to existing facilities if the project adds 10 or more vehicular parking spaces.

_____ This project will accommodate over 10 tenant-occupants, therefore long term bicycle parking is provided. The total number (minimum one) provided equal to 5% of vehicular parking spaces: _____. The method(s) selected to satisfy this requirement is (are):

_____ Covered, lockable enclosures with permanently anchored racks for bicycles, the total number provided is: _____, see plan sheet: _____.

_____ Lockable bicycle rooms with permanently anchored racks, the total number provided is: _____, see plan sheet: _____.

_____ Lockable, permanently anchored bicycle lockers, the total number provided is: _____, see plan sheet: _____.

ELECTRIC VEHICLE (EV) CHARGING (CGBSC 5.106.5.3)

[E] The following applies to this project:

_____ New construction where the total number of parking spaces is 10 or more.

_____ Addition or alternation to existing parking facility being modified by one of the following:

_____ Increase in power supply to an electric service panel as part of a parking facility addition or alteration.

_____ New Photovoltaic system is installed covering existing parking spaces.

_____ Scope of work is triggered per CGBC section 301.3 and includes increase in power supply to an electric service panel.

EV Charging Space Calculation (CGBSC 5.106.5.3.3)

Total parking spaces for the project or total parking spaces added/alterd is _____, therefore pursuant to Table 5.106.5.3.1 a total of _____ EV charging space(s) and a total of _____ EV Capable space(s) are provided. See plan sheet: _____ .

Project has parkings spaces accessible by automated car parking system. This provision is not applicable.

Project is an existing remote parking facility that do not have access to the building service panel. This provision is not applicable.

Project is for an existing parking area lighting upgrades with no trenching. This provision is not applicable.

1. EV Capable Spaces:

- A parking stall width of 108 inches and a length as required by the City of Irvine Zoning Code.
- A listed raceway not less than 1 inch diameter to accommodate a future dedicated 208/240-volt branch circuit originating at the main service or subpanel, and terminating in a listed cabinet, box, or other enclosure in close proximity to the proposed EV capable space. A common raceway may be used to serve multiple EV capable spaces.
- Service panel or subpanel sized to accommodate original design load plus an added dedicated 40 amp minimum branch circuit for each EV capable space with delivery of 30 amp minimum to an installed EV supply equipment (EVSE).
- The electrical system and any on-site distribution transformers shall have sufficient capacity to supply full rated amperage at each EV capable space.
- The service panel or subpanel circuit directory shall identify the reserved overcurrent protective device space(s) as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

2. Electric Vehicle Charging Stations (EVCS):

- EVCS can be any combination of Level 2 and Direct Current Fast Charging (DCFC), except that at least one Level 2 charger shall be provided.
- One EV charger with multiple connectors capable of charging multiple EVs simultaneously shall be permitted if the electrical load capacity required for each EV capable space is accumulatively supplied to the EV charger.
- The installation of each DCFC EVSE shall be permitted to reduced the minimum number of required EV capable spaces without EVSE by five and reduced proportionally the required electrical load capacity to he service panel or subpanel.
- When EV chargers are installed, accessible EVCS shall be provided.
- Accessible EVCS shall be located either on an accessible route or adjacent to an accessible parking space to allow use of the EV charger from the accessible parking.
- EV space serving an accessible EVCS shall be 18 feet minimum length
- EV space serving an accessible EVCS shall be 9 feet wide for standard accessible and 12 ft. wide for van accessible. A 5-foot aisle shall be provided on the side of the vehicle space.
- Surface slope for EV space and the aisle shall not exceed 1:48 in any direction.
- Refer to California Building Code Chapter 11B for applicable requirements to EV space serving accessible EVCS.

Electric Vehicle (EV) Charging: Medium-Duty and Heavy-Duty (CGBC 5.106.5.4)

[N] The following is applicable to construction of new warehouses, grocery stores, office buildings, manufacturing facilities, and retail stores with planned off-street loading spaces.

EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s) or subpanel (s) for medium and heavy duty is provided. See _____ plan sheet.

LIGHT POLLUTION REDUCTION [N](CGBSC Section 5.106.8)

[P] Outdoor lighting designed to comply with the City of Irvine Security Code, Section 3-16-1 of the City of Irvine Zoning Code, which requires all direct rays to be confined to the site and that adjacent properties are protected from glare, and allowable BUG rating limitations of CGBSC Table 5.106.8 are depicted on plan sheet: _____ along with photometrics.

Refer to CGBC Section 5.106.8.1 and 5.106.8.2 for facing requirements and more stringent backlight and glare ratings for luminaries located in proximity to property lines.

WATER EFFICIENCY AND CONSERVATION (CGBSC Section 5.303)

Separate Submeters or metering devices

Applicable to new buildings exceeding 50,000 square feet and [E] additions of 50,000 square feet or more made to existing buildings, and to any tenant of a new building or addition, regardless of size, which is projected to consume more than 1,000 gallons/day CGBSC Sections 5.303.1.1 and 5.303.1.2.

A separate meter or metering device is provided for the following spaces: _____. See plan sheet: _____ for details and specifications defining metering design.

This project consists of a single tenant building with a dedicated meter.

Separate meters or metering devices are not required as the new building or addition is less than 50,000 square feet, and no tenant usage is projected to exceed 1,000 gallons/day.

Separate meters or metering devices are not required as no tenant usage is projected to consume more than 100 gallons/day.

NOTES: (1) Tenants of new multi-tenant buildings or additions exceeding 50,000 square feet and that are not provided with a separate metering device must be shown to use less than 100 gallons/day via worksheet WS-1 found in chapter 8 of the CGBSC and any necessary addendum worksheet to reflect process water or other uses not represented on the worksheet. (2) For new buildings or additions having a total floor area less than 50,000 square feet, all its spaces not having a separate metering device must be shown to have a projected consumption of less than 1,000 gallons/day via worksheet WS-1 found in chapter 8 of the CGBSC and any necessary addendum worksheet to reflect process water or other uses not represented on the worksheet.

INDOOR WATER USE (CGBSC 5.303.3)

[E] Applicable to any newly installed plumbing fixture within new construction, the area of remodel or addition.

All new plumbing fixtures meet the requirements of CGBSC Section 5.303.3, see modified table below for flow rates.

TABLE FIXTURE FLOW RATES

FIXTURE TYPES	MAXIMUM FLOW RATE
SHOWERHEADS	1.8 gpm @ 80 psi
LAVATORY FAUCETS	0.5 gpm @ 60 psi
KITCHEN FAUCETS	1.8 gpm @ 60 psi*
WASH FOUNTAIN	1.8[rim space (in.)/20 gpm @ 60 psi]
METERING FAUCET	0.2 gallons/cycle
METERING FAUCET FOR WASH FOUNTAINS	0.2[rim space (in.)/20 gpm @ 60 psi]
WATER CLOSETS	1.28 gallons/flush*
FLOOR-MOUNTED URINAL	0.5 gallons/flush
WALL-MOUNTED URINAL	0.125 gallons/flush

*Includes single and dual flush water closets with an effective flush rate of 1.28 gallons or less: Dual flush toilets—The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is defined as the composite, average flush volume of two reduced flushes and one full flush.

When a pre-rinse spray valve is installed, it shall meet requirements in the California Code of Regulations, Title 20, Section 1605.1(h)(4) Table H-2, Section 1605.3(h)(4)(A), and Section 1607(d)(7), and shall be equipped with an integral automatic shutoff.

NOTE: The combined flow of multiple showerheads serving a single shower shall not exceed maximum allowable flow rate for a single fixture shower or the control valves shall be arranged to only allow one shower head to operate at a time.

OUTDOOR WATER USE- MWEL0 (CGBSC Section 5.304)

This project is subject to MWEL0 requirements. See plan sheet: _____ for completed City of Irvine Model Water Efficiency Landscape Ordinance work sheet, Form 40-81.

WATER RESISTANCE AND MOISTURE MANAGEMENT (CGBSC Section 5.407)

[E] Applicable to any new entry or opening which is part of an addition of 1,000 or more square feet or any tenant improvement having a valuation of \$200,000 or more.

ENTRIES

To prevent water intrusion into exterior entries and/or openings subject to foot traffic or wind-driven rain, the following features have been incorporated into the design for **primary exterior entries**:

_____ Door is protected by an awning or roof overhang 4 feet or more in depth, or is recessed 4 feet or more, see plan sheet: _____.

_____ Flashings integrated with a drainage plane, see plan sheet: _____.

_____ Non-absorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings, see plan sheet: _____.

MATERIAL CONSERVATION AND RESOURCE EFFICIENCY - CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING (CGBSC Section 5.408)

Recycling of materials for new construction, additions, and remodels shall conform to the Construction and Demolition Materials Recycling Requirements of the City of Irvine Municipal Code, Sections 6-7-901 through 6-7-912.

LIFE CYCLE ASSESSMENT (CGBC Section 5.409)

[E] Applicable to newly constructed building with floor area of 100,000 square feet or greater or additions/alterations of existing buildings where the combined altered or added floor area is 100,000 square feet or greater. Shall comply with one of the following:

_____ Building reuse analysis for existing buildings (CGBC 5.105.2). See sheet _____ for compliance summary.

_____ Whole Building life cycle assessment (CGB 5409.2). See sheet _____ for summary of the Global Warming Potential (GWP) analysis.

_____ Prescriptive path - Product GWP compliance (CGBC 5.409.3). See sheet _____ for compliance summary.

BUILDING MAINTENANCE AND OPERATION (CGBSC Section 5.410)

RECYCLING BY OCCUPANTS

[E] Applicable to an addition that adds 1,000 square feet or more or has a valuation of \$200,000, that **also increases** total floor area by at least 30% of existing floor area.

_____ [P] Designated recycling areas shall be provided as required by City of Irvine Zoning Ordinance (ZO) Sections 3-23-1 through 3-23-4 of the . See plan sheet: _____.

_____ [N] **COMMISSIONING** Building Commissioning is **only** required for new buildings or initial tenant improvements greater than 10,000 square feet. (Exceptions: Unconditioned warehouses of any size, conditioned areas less than 10,000 square feet and accessory to unconditioned warehouses, open parking garages, open parking garage areas associated with a larger structure.)

DESIGN

- Completed and signed Owner's Project Requirements (OPR) including all items as specified in CGBSC section 5.410.2.1, see sheet: _____.

- Completed and signed Basis of Design (BOD) including all items as specified in CGBSC section 5.410.2.2, see sheet: _____.
- Completed and signed Commissioning Plan, as specified in CGBSC section 5.410.2.3, see sheet: _____.

CONSTRUCTION - PRIOR TO FINAL INSPECTION APPROVAL

- A completed Commissioning Report shall be provided to the City Inspector prior to final inspection approval. Contents, pursuant to CGBSC Section 5.410.2.6, shall include a description of the commissioning process activities undertaken through the design, construction, and reporting recommendations for post construction phases. In addition, all required functional performance testing reports shall be included.
- A completed Systems Manual shall be made available for review by the City Inspector prior to final inspection approval. Contents shall include a completed and signed "Systems Manual" as specified in CGBSC section 5.410.2.5.1.

TESTING AND ADJUSTING For buildings not exceeding 10,000 square feet, [E] and any new system serving an addition of 1,000 or more square feet or a tenant improvement having a valuation of \$200,000, testing and adjusting are required.

DESIGN

See sheet _____ for procedures for testing and adjusting systems, which includes:

- HVAC systems and controls
- HVAC balancing per the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; or Associated Air Balance Council National Standards or approved equal.
- Indoor and outdoor lighting and controls
- Water heating systems
- Renewable energy systems
- Landscape irrigation systems
- Water reuse systems

CONSTRUCTION - PRIOR TO FINAL INSPECTION APPROVAL

Completed testing, adjusting, and balancing reports shall be provided to the City Inspector prior to final inspection approval. Contents shall match those specified in the procedures section above and be signed by the responsible parties.

ENVIRONMENTAL QUALITY

FIREPLACES Wood burning devices including fireplaces are not permitted under SCAQMD Rule 445. Any installed gas fireplace shall be a direct-vent sealed-combustion type. (CGBSC Section 5.503)

MECHANICAL EQUIPMENT AND DUCT PROTECTION

To reduce the amount of dust, water, and debris collected in mechanical equipment and ducts, all duct openings and other related air distribution equipment component openings shall be covered from the time of delivery at the jobsite through the construction until final start up. (CGBSC Section 5.504.3)

FINISH MATERIAL POLLUTANT CONTROL

- **Adhesives, sealants and caulks** shall meet the applicable standards of CGBSC Section 5.504.4.1 and Tables 5.504.4.1 and 5.504.4.2 for VOC limits and content prohibitions.
- **Paints and coatings** shall meet the applicable standards of CGBSC Section 5.504.4.3 and Table 5.504.4.3 for VOC limits.

- **Aerosol paints and coatings** shall meet the applicable standards of CGBSC Section 5.504.4.3.1.
- **Carpet systems** shall meet the applicable standards of CGBSC Section 5.504.4.4 including CGBSC Section 5.504.4.4.1 for **carpet cushions** and CGBSC Section 5.504.4.4.2 for **carpet adhesives**.
- **Resilient flooring** shall meet the applicable standards of CGBSC Section 5.504.4.6.
- **Composite wood products** shall meet the applicable standards of CGBSC Section 5.504.4.5 and Table 5.504.4.5.

ENVIRONMENTAL TOBACCO SMOKE CONTROL (CGBSC Section 5.504.7)

See plan sheet _____ for designated outdoor smoking area which shows a minimum of 25 feet from building entries, outdoor ventilation intakes, and operable windows.

FILTERS (CGBC Section 5.504.5.3)

Ventilation filtration (CGBSC Section 5.504.5.3) - For new HVAC systems outside and return air shall pass through filtration media having a rating of:

MERV 13 or better, see plan sheet _____ for specifications.

Equipment is existing and exempt from this requirement.

ENVIRONMENTAL COMFORT (CGBSC Section 5.507)

Exterior Noise Wall and roof assemblies making up the building envelope and exposed to the noise source as follows shall meet a composite STC rating of 50 or a composite OITC rating of 40, and exterior windows within said walls shall meet an STC of 40 or an OITC of 30.

Prescriptive Method (Using [Sound Transmission Class \(STC\) Map - 2012](#) from the City's online form directory.)

1. A portion or the entire building is within the 65 CNEL contour for a freeway or expressway therefore exterior wall assemblies and roof or roof-ceiling assemblies shall meet the specified exterior wall assemblies and roof or roof-ceiling assemblies requirements stated above. For details and specifications see plan sheets _____.

2. A portion or the entire building is within the 65 CNEL contour for John Wayne Airport therefore exterior wall assemblies and roof or roof-ceiling assemblies shall meet the specified exterior wall assemblies and roof or roof-ceiling assemblies requirements stated above. For details and specifications see plan sheets _____.

3. The project site fronts a street identified as producing 65 CNEL contours extending beyond the right of way therefore that portion of the building that is the contour shall meet the specified exterior wall assemblies and roof or roof-ceiling assemblies requirements stated above. For details and specifications see plan sheets _____.

This building is a factory, storage facility, utility building, enclosed parking structure, or stadium therefore no STC assemblies are required.

Performance Method

Pursuant to CGBSC Section 5.507.4.2, site and building mitigations have been defined based on a noise study prepared by an acoustical engineer. For a summary of features see plan sheets _____. For construction details see sheets _____.

Prior to final inspection, an acoustical report shall be provided to the City Inspector which demonstrates complying interior noise sound levels. Said report shall be signed and stamped by an acoustical engineer.

Interior Sound

Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40. Note: Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control at https://www.tsib.org/files/STC_IIC_Ratings.pdf. For details and specifications see plan sheets _____.

No interior walls separate tenant spaces or occupant spaces and public areas.