

# **Attachment No. PC 2**

Project Plans

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# DIVISION 1- GENERAL REQUIREMENTS

I. SCOPE  
A. WORK OF THE CONTRACT INCLUDES FURNISHING OF ALL LABOR, MATERIALS, APPLIANCES, TRANSPORTATION AND SERVICES REQUIRED FOR SATISFACTORY CONSTRUCTION OF THIS PROJECT.

B. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND EFFECT ALL ALTERATIONS, ADJUSTMENTS, ETC. TO DELIVER COMPLETE RESTAURANT INSTALLATIONS TO CONFORM TO CONTRACT DRAWINGS AND SPECIFICATIONS.

C. THE OWNER RESERVES THE RIGHT TO INSTALL RESTAURANT FIXTURES OR TO USE A PORTION OF THE CONSTRUCTION AREA AFTER SUBSTANTIAL COMPLETION BY THE CONTRACTOR. SUCH OCCUPANCY SHALL IN NO WAY IMPLY ACCEPTANCE OF ANY PART OF THE WORK.

2. PERMITS  
ALL PERMITS AND INSPECTIONS REQUIRED, UNLESS ALREADY OBTAINED, SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR. OWNER WILL REIMBURSE CONTRACTOR FOR PRINCIPAL PLAN CHECK AND PERMIT FEE.

3. TEMPORARY FACILITIES ELECTRIC, WATER AND TOILET SERVICE REQUIRED IN THE PERFORMANCE OF THE CONTRACT SHALL BE FURNISHED BY THE CONTRACTOR.

4. ADDENDA TO SPECIFICATIONS  
BULLETINS AND INSTRUCTIONS ISSUED BY THE ARCHITECT DURING THE PERIOD OF BIDDING WILL BE INCORPORATED IN THE CONTRACT DOCUMENTS BY MEANS OF ADDENDA TO THE SPECIFICATIONS.

5. TESTS AND INSPECTIONS  
ALL TESTS AND INSPECTIONS, OF ANY KIND, REQUIRED HEREINAFTER IN THE SPECIFICATIONS, AND WHICH INVOLVE EXPENSE, SHALL BE PAID BY THE CONTRACTOR AND REIMBURSED BY OWNER.

6. PROTECTION OF WORK IN PLACE ALL WORK IN PLACE SHALL BE ENCLOSED WITH ADEQUATE PROTECTION. PERMANENT OPENINGS USED AS THOROUGHFARES FOR THE INTRODUCTION OF WORK AND MATERIALS TO THE STRUCTURE SHALL HAVE HEADS, JAMBS AND SILLS WELL BLOCKED AND BOARDED, REPAIR ALL DAMAGE TO EXISTING WORK.

7. GUARANTEE  
CONTRACTOR SHALL GUARANTEE THE WORK OF EACH TRADE AND THE ENTIRE WORK FOR (I) YEAR.

8. CLEANING  
ALL SUBCONTRACTORS SHALL REMOVE ALL DIRT AND RUBBISH CAUSED BY THEIR WORK, FROM THE BUILDING AND SITE ON A DAILY BASIS. AT COMPLETION OF THE WORK, THE CONTRACTOR SHALL THOROUGHLY CLEAN INTERIOR AND EXTERIOR OF BUILDING.

9. ALL GLASS SHALL BE WASHED CLEAN AT COMPLETION (INTERIOR AND EXTERIOR OF BUILDING). ALL FLOORS AND MILLWORK SHALL BE THOROUGHLY CLEANED AND FREE OF CONSTRUCTION DEBRIS

10. SUBSTITUTIONS  
WHEREVER TERM "OR EQUAL" IS USED, IT SHALL MEAN EQUAL PRODUCT AS APPROVED BY THE ARCHITECT.

11. EQUIPMENT UNDER THIS CONTRACT AND FURNISHED BY OTHERS (IE, LIGHT FIXTURES, KITCHEN EQUIPMENT) IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ACQUAINT HIMSELF WITH THE DIMENSIONS OF ALL EQUIPMENT UNDER THIS CONTRACT SO THAT PREPARATIONS CAN BE MADE TO PROVIDE ENTRY INTO THE BUILDING WITH SUFFICIENT CLEARANCES AND SO ADEQUATE FLOOR AREA IS AVAILABLE.

II. PROGRESS  
THE CONTRACTOR SHALL CAUSE THE WORK TO BE DILIGENTLY PURSUED TO ENTIRE COMPLETION. SHOULD HE FAIL TO SUPPLY A SUFFICIENCY OF WORKMEN OR MATERIALS OR FAIL TO MAKE TIMELY ARRANGEMENTS WHICH MAY BE REQUIRED FOR PROGRESS, THEN THE CONTRACTOR SHALL PROVIDE EVIDENCE SATISFACTORY TO THE OWNER THAT SAID DEFICIENCIES ARE DUE TO CAUSES BEYOND THE CONTRACTOR'S CONTROL. UNLESS HE PROVIDES SUCH EVIDENCE, THE OWNER SHALL HAVE THE RIGHT, AFTER TWO DAYS NOTICE IN WRITING, TO MAKE SUCH ARRANGEMENTS AND SUPPLY SUCH WORKMEN AND MATERIALS AT THE CONTRACTOR'S EXPENSE. THE SAME RELATIONSHIP SHALL EXIST BETWEEN THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS.

12. COORDINATION  
CONTRACTOR SHALL COORDINATE CONSTRUCTION SCHEDULING, PROCESS AND PROCEDURES WITH BUILDING OWNER. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL COMPLY WITH PROVISIONS OF THE TENANT LEASE.

## DIVISION 5 - METALS

05100-METAL FRAMING  
I. LIGHT GAUGE METAL FRAMING: A. ALL STUD FRAMING MEMBERS, RUNNER TRACKS, BRIDGING AND NON-LOAD BEARING STUDS SHALL BE GALVANIZED AND OF TYPE AND SIZE INDICATED ON DRAWINGS. B. MATERIALS AND INSTALLATION SHALL BE IN STRICT CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS AS APPROVED BY THE ARCHITECT. C. MINIMUM 20 GA. AT PARTITIONS. STEEL FRAMING (UNLESS OTHERWISE NOTED ON PLANS). 3 5/8" STEEL STUDS (UNLESS OTHERWISE NOTED).

2. STRUCTURAL METAL FRAMING AS PER STRUCTURAL SPECIFICATIONS.

3. METAL FASTENING:  
POWER DRIVEN STUDS: MINIMUM 7/32" DIAMETER BY 1 1/8" WASHER, WHERE ATTACHING STUD RUNNER TRACKS. MAXIMUM SPACING SHALL NOT EXCEED 3'-0" O.C. PROVIDE MINIMUM OF TWO (2) POWER DRIVEN STUDS PER RUNNER TRACK.

4. PROVIDE GALVANIC INSULATION BETWEEN DISSIMILAR METALS.  
05600-ARCHITECTURAL METALWORK

I. ARCHITECTURAL METALWORK:  
ALL EXPOSED METAL WITHIN PROJECT SHALL BE SEALED WITH A POLYURETHANE SEALER U.O.N.

ALL ARCHITECTURAL METALWORK SHALL BE INSTALLED BY GENERAL CONTRACTOR. EXCEPT FOR THE METAL INTEGRAL TO MILLWORK, WHICH WILL BE INSTALLED BY THE MILLWORK CONTRACTOR. GENERAL CONTRACTOR IS RESPONSIBLE FOR PROPER COORDINATION OF ALL ARCHITECTURAL METAL WORK.

1. EXTERIOR AND INTERIOR METAL WORK FABRICATOR: T.B.D.

5. CURTAIN RODS, RINGS AND HOLD OPENERS:  
A. FURNISH AND INSTALL PER DRAWINGS.  
B. PROVIDE BLOCKING AND BACKING AS REQUIRED.  
C. SUBMIT FIVE (5) SAMPLES TO ARCHITECT

FABRICATOR: T.B.D.

## DIVISION 6 - WOOD AND PLASTICS

I. INCLUDED (BUT NOT LIMITED TO)

A. ROUGH CARPENTRY INCLUDING ALL WOOD STUDS: FURRING, BLOCKING, GROUNDS, ROUGH FRAMES, WOOD CURBS, BUCKS, NAILERS, BACKING, FIXTURE FRAMING, EQUIPMENT SUPPORTS, ETC. AS DETAILED.

B. ROUGH HARDWARE.  
C. INSTALLATION OF FINISH HARDWARE.  
D. COMPLETE SHOP DRAWINGS FOR APPROVAL.

1. WORKMANSHIP:  
AS PER WOODWORK INSTITUTE OF CALIFORNIA, LATEST EDITION. CUSTOM GRADE.

2. MATERIALS (SEE STRUCTURAL DRAWINGS)  
A. FRAMING LUMBER, SILLS: SEE STRUCTURAL DRAWINGS.  
B. STRUCTURAL PLYWOOD: AS PER STRUCTURAL DRAWINGS.  
C. PLYWOOD: D.F. AS PER PS-166 (EXTERIOR GLUE) GROUP W WITH INTERIOR-UNDERLAYMENT. D. FINISH WOOD AND WOOD TRIM:  
WHITE OAK WALL PANELS, ROUGH SAWN STAIN GRADE. MUST MEET ASTM-E84 OR UL723 FOR CLASS C FLAME SPREAD  
OAK CEILING BEAMS  
E. PAINT GRADE WOOD TRIM:  
OAK, PAINT GRADE, FINGER JOINTED, S4S, WIC GRADE: CUSTOM.

3. FINISH CARPENTRY INSTALLATION:  
AS A MINIMUM REQUIREMENT, COMPLY WITH STANDARDS FOR CUSTOM GRADE OF THE MANUAL OF MILLWORK, OF THE WOODWORK INSTITUTE OF CALIFORNIA. FINISH WOODWORK SHALL BE RE-SAWN OR SMOOTHLY DRESSED, BELT SANDED AT MILL AND HAND SANDED PRIOR TO ERECTION AS NOTED. FINISH FREE FROM OPEN JOINTS, HAMMER AND MACHINE MARKS, STRUCTURAL DEFECTS AND SURFACE BLEMISHES. WHEREVER PRACTICAL, CONCEAL MEANS OF FASTENING VARIOUS PARTS AND MEMBERS TOGETHER. WHERE SURFACE NAILING IS UNAVAILABLE, NEATLY SET NAILS FOR PUTTY STOPPING.

## DIVISION 7 - THERMAL AND MOISTURE PROTECTION

## DIVISION 8 - DOORS AND WINDOWS

### 08100 - METAL DOORS AND FRAMES

I. HOLLOW METAL DOORS: FLUSH TYPE, THICKNESS AS INDICATED ON THE DOOR SCHEDULE. FORMED OF TWO SHEETS OF #18 GAUGE STEEL WITH #20 GAUGE VERTICAL REINFORCING MEMBER EXTENDING FULL HEIGHT OF DOOR, SPACED NO OVER 6" ON CENTERS. VERTICAL SEAMS AT DOOR EDGES, WELDED AT MAXIMUM OF 2" SPACING. GROUND AND FILLED WITH MINERAL FILLER AND FINISHED FLUSH AND SMOOTH. PROVIDE ASTRAGAL AT DOUBLE DOORS. WHEN CALLED FOR, PROVIDE WITH U.L. LABEL AND FUSIBLE LINK WHERE REQUIRED FOR RATED DOOR.

2. HOLLOW METAL FRAMES: A. FRAMES: COMBINATION TYPE WITH BUCK, FRAME AND TRIM FORMED TO INDICATED DESIGN AND FABRICATION FROM #16 GAUGE STEEL. CONSTRUCT FRAMES WITH WELDED STEEL AND MITERED CORNERS. WELDS GROUND SMOOTH ON EXPOSED SURFACES. FRAMES SHALL HAVE INTEGRAL STOPS EXCEPT WHERE DETAILED OTHERWISE.

08200-WOOD DOORS AND WINDOWS: EXTERIOR DOORS AND WINDOWS BY SHELL CONTRACTOR.

1. SCOPE: FURNISH ALL MATERIALS NECESSARY FOR A COMPLETE INSTALLATION OF DOORS AND WINDOWS (INCLUDING THRESHOLD AND HARDWARE), FIXED WINDOWS, OPERABLE WINDOWS AND MISCELLANEOUS TRIM.

2. WOOD DOORS AND WINDOWS: SHALL BE OF DESIGN SIZE AND TYPE AS SHOWN ON DRAWINGS. CONSTRUCT PER W.I.C. BANDING AND FACE VENEERS SHALL BE APPEARANCE GRADE. INTERIOR GLASS: GLASS TO BE CLEAR TEMPERED, THICKNESS AS PER DETAILS. EXTERIOR GLASS: INSULATED GLASS ON ALL WINDOWS/DOORS.

B. FINISH WOOD WITH MIN. FOUR COATS PAINT AT EXTERIOR, TWO COATS PAINT AT INTERIOR.  
C. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS.

### 08710 - FINISH HARDWARE

I. SCOPE:

A. FURNISH ALL FINISH HARDWARE REQUIRED TO COMPLETE THE WORK AS INDICATED ON THE DRAWINGS AND AS HEREIN SPECIFIED. PROVIDE ALL TRIM, ATTACHMENTS AND FASTENINGS SPECIFIED OR REQUIRED FOR PROPER AND COMPLETE INSTALLATION. INCLUDE ALL HARDWARE UNDER THIS SECTION OF THE SPECIFICATIONS THAT IS NOT SPECIFIED IN OTHER SECTIONS, WHETHER OR NOT SUCH HARDWARE IS HEREIN SPECIFICALLY SCHEDULED.

2. LOCK STRIKE:

A. ALL LOCK STRIKES SHALL BE BOXED, AND SHALL HAVE A CURBED LIP OF SUFFICIENT LENGTH TO PROTECT THE TRIM AND/OR JAMB.  
B. KEYING AND MASTER KEYING: BY OWNER.

4. DOOR HANGING:

A. THE HAND OF LOCK SHALL BE INDICATED ON THE DRAWINGS. IF DOOR HAND IS CHANGED DURING CONSTRUCTION, CONTRACTOR SHALL MAKE NECESSARY CHANGES IN HARDWARE AT NO ADDITIONAL EXPENSE TO OWNER.

5. DOOR HARDWARE: SEE SCHEDULE

6. DOOR HANDLES: SEE SCHEDULE

7. FINISH OF HARDWARE: SEE SCHEDULE

8. HARDWARE LIST:

A. SUBMIT COMPLETED HARDWARE SCHEDULE BASED ON OUTLINE HARDWARE GROUPS SHOWN ON DOOR SCHEDULE.

9. DECORATIVE DOOR PULLS, SEE SCHEDULE

### 08800 - GLAZING

1. SCOPE:

EXTENT OF GLASS WORK AS INDICATED ON ARCHITECTURAL DRAWINGS AND SCHEDULE.

2. MATERIAL:

A. SHALL COMPLY WITH FLAT GLASS MARKETING ASSOCIATIONS (FGMA) "GLAZING MANUAL" UNLESS OTHERWISE NOTED.

B. SHALL COMPLY WITH UNIFORM BUILDING CODE (UBC) CHAPTER 24 "GLASS AND GLAZING".

C. SHALL COMPLY WITH THE U.S. CONSUMER PRODUCT SAFETY COMMISSION "SAFETY STANDARD FOR ARCHITECTURAL GLAZING MATERIALS" 16 CFR1201

D. ACCEPTABLE MANUFACTURERS:

1. PPG INDUSTRIES, INC.

2. LIBBEY-OWENS-FORD CO.

3. APPROVED EQUAL

E. FLOAT GLASS: CONFORMING TO ASTM C1036, TYPE I, CLASS I, QUALITY Q3 OR BETTER.

F. THICKNESS: AS RECOMMENDED BY MANUFACTURED FOR SIZE OF LIGHT TO BE GLAZED AND DESIGN LOADS BUT NO LESS THAN 3/16"

2. COLOR: CLEAR

F. TEMPERED GLASS: GLASS AS SPECIFIED ABOVE AND CONFORMING TO REQUIREMENTS OF ASTM C1048, KIND "FT".

## DIVISION 9 - FINISHES

### 09120 - CEILING SUSPENSION SYSTEMS

SUSPENDED CEILINGS:

FURNISH MATERIALS AND LABOR REQUIRED FOR INSTALLATION OF SUSPENDED GYPSUM BOARD CEILINGS AND SUSPENDED ACOUSTICAL TILE CEILINGS, INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS NECESSARY TO COMPLETE THE CONTRACT, INCLUDING BUT NOT LIMITED TO THESE MAJOR ITEMS:

A. HANGER WIRE: 8 GAUGE MINIMUM, GALVANIZED ANNEALED LOW CARBON STEEL.

B. MAIN SUSPENSION RUNNERS #16 GAUGE COLD ROLLED STEEL CHANNELS 1 1/2", WEIGHING 475 LBS/100 LINEAR FEET.

## DIVISION 9 - FINISHES

### 09120 - CEILING SUSPENSION SYSTEMS

SUSPENDED CEILINGS:

FURNISH MATERIALS AND LABOR REQUIRED FOR INSTALLATION OF SUSPENDED GYPSUM BOARD CEILINGS AND SUSPENDED ACOUSTICAL TILE CEILINGS, INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS NECESSARY TO COMPLETE THE CONTRACT, INCLUDING BUT NOT LIMITED TO THESE MAJOR ITEMS:

A. A. HANGER WIRE: 8 GAUGE MINIMUM, GALVANIZED ANNEALED LOW CARBON STEEL.

B. B. MAIN SUSPENSION RUNNERS #16 GAUGE COLD ROLLED STEEL CHANNELS 1 1/2", WEIGHING 475 LBS/100 LINEAR FEET.

### 09250 - GYPSUM DRYWALL

1. FURNISH MATERIALS AND PERFORM LABOR REQUIRED TO EXECUTE THIS WORK AS INDICATED ON THE DRAWING, AS SPECIFIED AND AS NECESSARY TO COMPLETE THE CONTRACT.

2. REFERENCE SPECIFICATIONS:

EXCEPT AS MAY BE MODIFIED BY THESE SPECIFICATIONS AND APPLICABLE LAWS AND ORDINANCES AT THE PLACE OF BUILDING, INSTALL THIS WORK TO CONFORM TO THE REQUIREMENTS OF "STANDARD SPECIFICATION FOR GYPSUM WALLBOARD INTERIOR FINISHES", AS APPROVED BY THE AMERICAN NATIONAL STANDARD INSTITUTE AS ANSI #A97.1. 3. MATERIALS:

A. GYPSUM WALLBOARD: TAPERED EDGE SHEET CONFORMING TO ASTM C36: 5/8" THICKNESS UNLESS NOTED OTHERWISE. USE TYPE "X" ONE-HOUR BOARD THROUGHOUT. USE TYPE "R" CONFORMING TO ASTM C380 AT TOILET ROOMS, DISHWASHING AND JANITOR CLOSETS. OR WHERE NOTED ON DRAWINGS.

B. JOINTS, REINFORCING TAPE, ADHESIVE AND METAL CORNER REINFORCEMENT: STANDARD PRODUCTS RECOMMENDED BY THE MANUFACTURER OF THE GYPSUM WALLBOARD USED IN THE WORK.

C. FASTENERS: SELF-DRILLING, SELF-TAPPING, COUNTERSUNK BUGLE HEAD DRYWALL SCREWS, FOR ATTACHMENT FOR WALLBOARD TO METAL STUDS.

3. FINISH: GYP. BD. SCHEDULED TO RECEIVE PAINT AND/OR VENEER PLASTER TO BE LEVEL 5 FINISH.

### 09300 - CERAMIC TILE

I. CERAMIC TILE TO BE THIN-SET IN 1/32" MORTAR AND MORTAR IS TO MEET ANSI 118.1 SPECIFICATIONS. JOINTS ARE TO MEET ANSI A1 18.6 SPECIFICATIONS. THE TILE IS TO MEET ANSI 1008.5 SPECIFICATIONS. TILE INSTALLATION AT THIN-SET LOCATIONS TO MEET SPECIFICATIONS OF THE TILE COUNCIL OF AMERICA, METHOD F142-94 AT FLOORS AND W243-94 AT WALLS.

2. FOR TYPE, COLOR, MANUFACTURER, JOINT THICKNESS, AND LOCATION SEE FINISH SCHEDULE.

3. SETTING MATERIALS:

A. PORTLAND CEMENT: ASTM C150, TYPE I

B. SAND: ASTM C144

C. WATER: CLEAN AND POTABLE.

D. PORTLAND-CEMENT MORTAR: ONE PART PORTLAND CEMENT AND SIX PARTS DAMP SAND BY VOLUME, WITH WATER-RESISTANT ADMXTURE.

E. DRY-SET MORTAR: CONFORMING TO ANSI A1 18.1 OR EQUAL TO TCA FORMULA 759.

F. LATEX PORTLAND CEMENT MORTAR: CONFORMING TO ANSI A1 18.4. G. ORGANIC ADHESIVE: CONFORMING TO ANSI A136.1, TYPE I.

H. BOND COAT: PORTLAND CEMENT PAST ON A PLASTIC BED OR DRY-SET MORTAR ON A CURED BED.

I. WATERPROOF MEMBRANE: LATICRETE 9235 OR APPROVED EQUAL.

J. EPOXY MORTAR: ANSI A1 18.3, LATICRETE "LATAPROXY" SP-100-724.

4. GROUTING MATERIALS:

A. LATEX-PORTLAND-CEMENT GROUT: SPECIAL LATEX EMULSIONS WITH COMMERCIAL PORTLAND-CEMENT GROUT, REPLACING ALL OR PART OF WATER ACCORDING TO DIRECTIONS SPECIFIED BY LATEX MANUFACTURER.

B. DRY-SET GROUT: L&M "DRY CURE WALL GROUT", TILE MATE 719 MANUFACTURED BY UPSCO COMPANY OR APPROVED EQUAL.

C. EPOXY GROUT: ANSI A1 18.3 LATICRETE "LATAPROXY" SP-100-724.

D. COLORING MATERIALS FOR COLORED JOINTS: STANDARD COMMERCIAL BRAND OF CHEMICALLY INERT COLORING MATERIAL ACCURATELY MEASURED BY WEIGHT IN DEFINITE MANNER FOR EACH BATCH OF GROUT TO PRODUCE CONSISTENTLY EVEN COLOR.

### 09500-ACOUSTICAL TREATMENT

1. SCOPE:  
AS INDICATED ON DRAWING. SEE FINISH SCHEDULE FOR MANUFACTURER AND SIZE OF ACOUSTICAL TILE CEILING. 2. MATERIAL:  
R-II FIBERGLASS SOUND ATTENUATION BATT INSULATION IN PERIMETER WALLS OF TOILET ROOMS AND KITCHEN.

### 09900 - PAINTING

I. SCOPE:  
FURNISH AND APPLY PAINTING AND FINISHING, AS INDICATED AND SPECIFIED. FOR TYPE, COLOR AND LOCATION OF PAINTED FINISH, SEE FINISH MATERIAL SPECIFICATIONS.

2. GENERAL:

A. FIELD CONDITIONS: VERIFY DRAWING DIMENSIONS WITH ACTUAL FIELD CONDITIONS. INSPECT RELATED WORK AND ADJACENT SURFACES. REPORT TO THE ARCHITECT ALL CONDITIONS WHICH PREVENT PROPER EXECUTION OF THIS WORK.

B. DELIVER MATERIALS TO THE JOB IN UNOPENED CONTAINERS BEARING MANUFACTURER'S NAME AND PRODUCT DESIGNATION CORRESPONDING TO DESIGNATION ON MATERIAL LIST.

C. STORAGE: STORE IN DRY., CLEAN, WELL VENTILATED AREAS IN A MANNER TO PREVENT DAMAGE OR FIRE, AND IN CLOSED CONTAINERS. REMOVE EMPTY CONTAINERS AND PAINT SOILED OR OILY RAGS FROM THE SITE AT THE END OF EACH DAY'S WORK.

D. COLORS AND GLOSS: AS SELECTED AND APPROVED BY THE OWNER. NO EXTRA WILL BE ALLOWED FOR SPECIAL OR DEEP TONE COLORS.

E. SUBMIT SAMPLES USING MATERIALS APPROVED FOR THE PROJECT, EACH COLOR AND PAINT FINISH SELECTED BY THE ARCHITECT. PREPARE FIVE (5) DUPLICATE SAMPLES 8 1/2" X 11" SHOWING SUCCESSIVE COATINGS FOR TRANSPARENT AND STAINED FINISHED, PREPARE SAMPLES ON SPECIES AND QUALITY OF WOOD USED IN THE WORK.

F. ENVIRONMENTAL CONDITIONS: APPLY NO PAINT WHEN TEMPERATURE IS BELOW 55 DEGREES FAHRENHEIT, ENSURE PROPER VENTILATION DURING ALL INTERIOR PAINTING.

G. HARDWARE: ENSURE THAT HARDWARE IS REMOVED BEFORE PAINTING IS STARTED AND REPLACED ONLY WHEN PAINT FINISHES ARE THOROUGHLY DRY. FITTING, REMOVAL AND REINSTALLATION OF FINISH HARDWARE IS SPECIFIED IN FINISH CARPENTRY AND MILLWORK SECTIONS.

H. COATS: THE NUMBER OF COATS SPECIFIED IS THE MINIMUM NUMBER ACCEPTABLE. IF FULL EVEN COVERAGE IS NOT OBTAINED WITH THE SPECIFIED NUMBER OF COATS, APPLY AT NO EXTRA COST. SUCH COATS AS ARE NECESSARY TO PRODUCE THE REQUIRED FINISH, AS APPROVED BY THE OWNER.

## 3. MATERIALS:

A. REVIEW THE PAINT AND FINISH SCHEDULES WITH THE ARCHITECT, AND SUBMIT COMPLETE LIST OF MATERIALS PROPOSED FOR THE WORK, USING THE HIGHEST GRADE MATERIAL AVAILABLE FROM MANUFACTURER.

B. EMPLOY COATS AND UNDERCOATS FOR ALL TYPES OF FINISHES IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OR THE MANUFACTURERS.

4. CONDITIONS OF SURFACES:  
ALL SURFACES TO RECEIVE PAINT SHALL BE CLEAN, DRY SMOOTH AND DUST FREE BEFORE APPLICATION OF ANY MATERIAL. PREPARE SURFACES AS FOLLOWS:

A. WOOD: SAND SMOOTH AND REMOVE DUST. FILL OPEN JOINTS, CRACKS, NAIL HOLES AND OTHER PITS OR DEPRESSIONS FLUSH AND SMOOTH WITH PUTTY OR WOOD DOUGH AFTER PRIMING. COLOR PUTTY TO MATCH FINISH PAINT COAT. TOUGH UP KNOTS OR SAP STREAKS WITH SHELLAC OR OTHER APPROVED SEALER BEFORE PRIMING.

B. PRIMED FERROUS METAL: REMOVE ALL FOREIGN MATTER. TOUCH UP ABRASIONS WITH FERROUS METAL PRIMER.

C. UNPRIMED FERROUS METAL: REMOVE ALL RUST, MILL SCALE, AND FOREIGN MATTER BY WIRE BRUSHING, SCRAPING, SANDBLASTING OR SOLENT, AS REQUIRED TO PROVIDE A CLEAN SMOOTH SURFACE.

D. GALVANIZED METAL: REMOVE ALL FOREIGN MATTER AND CLEAN ENTIRE SURFACE WITH MINERAL SPIRITS. PRETREAT WITH PHOSPHORIC ACID ETCH OR VINYL WASH. APPLY PRIMER THE SAME DAY AS PRE-TREATMENT IS APPLIED.

E. GYPSUM BOARD: REMOVE ALL FOREIGN MATTER. FILL ALL PITS FLUSH AND SMOOTH WITH SPACKLE.

5. PRIMING:

A. WOOD: BEFORE INSTALLATION, PRIME AND BACK-PRIME ALL ITEMS PARTIALLY OR COMPLETELY CONCEALED IN THE FINISH WORK. USE FACTORY-MIXED PRIMER. FOR WOOD HAVING A STAINED OR TRANSPARENT FINISH USE 4LB. CUT SHELLAC.

B. GALVANIZED METAL: PRIME ALL SURFACES EXCEPT WHERE TO BE EMBEDDED IN CONCRETE, MASONRY OR ROOFING: ALLOW TO DRY BEFORE INSTALLATION.

6. APPLICATION:

A. APPLY MATERIAL EVENLY, FREE FROM SAGS, RUNS, CRAWLS, HOLIDAYS OR DEFECTS. MIX TO PROPER CONSISTENCY. BRUSH OUT SMOOTH LEAVING MINIMUM OF BRUSH MARKS, ENAMEL AND VARNISH UNIFORMLY FLOWED ON.

B. APPLY PAINT BY BRUSHES, ROLLER OR SPRAY EXCEPT DRYWALL, PRIME COAT BY ROLLER ONLY.

C. TINT ALL PIGMENTED UNDERCOATS TO APPROXIMATELY SAME SHADE AS FINAL COAT. PERCEPTIBLY INCREASE THE DEPTH OF SHADE IN SUCCESSIVE COATS.

D. ALLOW EACH COAT TO THOROUGHLY DRY BEFORE SUCCEEDING COAT APPLICATION. FOR OIL PAINTS, ALLOW AT LEAST 48 HOURS BETWEEN COATS OF EXTERIOR WORK, EXCEPT WHERE OTHERWISE RECOMMENDED BY MANUFACTURER.

E. FINISH ALL FOUR EDGES OF DOORS WITH THE SAME NUMBER AND KIND OF COATINGS AS SPECIFIED FOR THEIR MAIN SURFACES. WHERE OPENINGS INTO ROOMS HAVING DIFFERENT FINISHES, FINISH DOOR EDGES AS DIRECTED.

F. DO NOT PAINT FACTORY FINISHED ITEMS UNLESS SPECIFICALLY DIRECTED.

G. PAINT VISIBLE SURFACES OF METAL DUCTS AND VENTS.

H. FINISH MILL OR SHOP PRIMED ITEMS WITH MATERIALS COMPATIBLE WITH PRIME COAT. I. MISCELLANEOUS PAINTING: SURFACES TO BE PAINTED AND NOT SPECIFICALLY DESCRIBED HEREIN, SHALL BE PAINTED WITH A PRODUCT SPECIFICALLY MANUFACTURED OR PREPARED FOR THE MATERIAL AND THE SURFACE: PRIME COAT AND TWO FINISH COATS.

J. UPON COMPLETION, REMOVE ALL RUBBISH CAUSED BY THIS TRADE. REMOVE SPOTS FROM FLOORS, GLASS AND OTHER SURFACES. LEAVE PREMISES IN A CLEAN AND ORDERLY FASHION.

K. AT THE COMPLETION OF OTHER TRADES AND FIXTURE INSTALLATION TOUCH UP DAMAGED SURFACES AS REQUIRED.

L. FIRE SPRINKLER HEADS MUST BE MASKED DURING PAINTING OF ADJACENT SURFACES.

M. PROVIDE ACCESSORIES BY BOBRICK OR APPROVED EQUAL, SATIN STAINLESS STEEL (ACCESSORIES SHALL NOT HAVE KEYS OR PINS).

10800 - TOILET AND BATH ACCESSORIES

A. SEE DRAWINGS FOR ACCESSORY TYPE AND LOCATION.

B. PROVIDE BLOCKING AND BACKING AS REQUESTED.

C. MOUNTING LOCATIONS SHALL COMPLY WITH APPLICABLE CODES FOR HANDICAPPED ACCESSIBILITY.

## DIVISION II - EQUIPMENT

I. WHERE ILLUSTRATED ON PLANS, ALL KITCHEN EQUIPMENT, P.O.S. REGISTERS, SECURITY SYSTEMS, COMPUTERS, MUSIC SYSTEM AND TELEPHONE SYSTEM WILL BE SUPPLIED BY OWNER. GENERAL CONTRACTOR SHALL PROVIDE NECESSARY STAGING IN ORDER TO PROVIDE OWNER WITH AMPLE "LEAD TIME" FOR OWNER'S SUBCONTRACTOR.

## DIVISION 16 - ELECTRICAL

OUTDOOR ELECTRIC HEATERS - SEE ELECTRICAL DRAWINGS 16000 - ELECTRICAL SWITCHES, OUTLETS, COVERS AND PLATES

NOTE:  
ALL ELECTRICAL SWITCHES, OUTLETS, COVERS AND PLATES SHALL BE FINISHED AS FOLLOWS PER LOCATIONS:

KITCHEN/BACK OF HOUSE:  
PLATE/COVER FINISH: STAINLESS STEEL SWITCH OUTLET FINISH: WHITE ACRYLIC

COOKLINE/SERVICE  
PLATE/COVER FINISH: WHITE ACRYLIC SWITCH/OUTLET FINISH: WHITE ACRYLIC

DINING/ENTRY/BAR/LOGGIA - MILLWORK  
PLATE/COVER FINISH: T.B.D. SWITCH/OUTLET FINISH: T.B.D.

DINING/ENTRY/BAR/LOGGIA - PAINT GRADE  
PLATE/COVER FINISH: T.B.D. SWITCH/OUTLET FINISH: T.B.D.

## PROJECT

### NEWPORT

2607 W COAST HWY  
NEWPORT BEACH, CA 92663



BUILT INC.  
9106 SUNSET BLVD.  
WEST HOLLYWOOD, CA  
T323 857 0409  
www.builtinc.com

NEWPORT  
2607 W COAST HWY  
NEWPORT BEACH, CA 92663

ISSUE DATES	NOTES	INITIALS
11-06-2025	CD SET	N.R.

SHEET TITLE

## GENERAL NOTES

SHEET TITLE

A-2<sub>42</sub>

**2022 CALIFORNIA GREEN BUILDING STANDARDS CODE  
NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)**

**CHAPTER 3 GREEN BUILDING  
SECTION 301 GENERAL**

**301.1 SCOPE.** Buildings shall be designed to include the green building measures 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.

**301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC-CG]** The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of \$200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.

A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings [N] or to additions and/or alterations [A]. When the code section applies to both, no banner will be used.

**301.3.1 Nonresidential additions and alterations that cause updates to plumbing fixtures only:**

**Note:** On and after January 1, 2014, certain commercial real property, as defined in Civil Code Section 1101.3, shall have its noncompliant plumbing fixtures replaced with appropriate water-conserving plumbing fixtures under specific circumstances. See Civil Code Section 1101.1 *et seq.* for definitions, types of commercial real property affected, effective dates, circumstances necessitating replacement of noncompliant plumbing fixtures, and duties and responsibilities for ensuring compliance.

**301.3.2 Waste Diversion.** The requirements of Section 5.408 shall be required for additions and alterations whenever a permit is required for work.

301.4 PUBLIC SCHOOLS AND COMMUNITY COLLEGES. (see GBSC)  
301.5 HEALTH FACILITIES. (see GBSC)

**SECTION 302 MIXED OCCUPANCY BUILDINGS**

**302.1 MIXED OCCUPANCY BUILDINGS.** In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

**SECTION 303 PHASED PROJECTS**

**303.1 PHASED PROJECTS.** For shell buildings and others constructed for future tenant improvements, only those code measures relevant to the building components and systems considered to be new construction (or newly constructed) shall apply.

**303.1.1 Initial Tenant Improvements.** The provisions of this code shall apply only to the initial tenant improvements to a project. Subsequent tenant improvements shall comply with the scoping provisions in Section 301.3 non-residential additions and alterations.

**ABBREVIATION DEFINITIONS:**

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHFD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

**CHAPTER 5  
NONRESIDENTIAL MANDATORY MEASURES  
DIVISION 5.1 PLANNING AND DESIGN**

**SECTION 5.101 GENERAL**

**5.101.1 SCOPE.** The provisions of this chapter outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties.

**SECTION 5.102 DEFINITIONS**

**5.102.1 DEFINITIONS**  
The following terms are defined in Chapter 2 (*and are included here for reference*)

**CUTOFF LUMINAIRES.** Luminaires whose light distribution is such that the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle of 90 degrees above nadir, and 100 (10 percent) at a vertical angle of 80 degrees above nadir. This applies to all lateral angles around the luminaire.

**LOW-EMITTING AND FUEL EFFICIENT VEHICLES.**

Eligible vehicles are limited to the following:  
1. Zero emission vehicle (ZEV), enhanced advanced technology PZEV (enhanced AT ZEV) or transitional zero emission vehicles (TZEV) regulated under CCR, Title 13, Section 1962.  
2. High-efficiency vehicles, regulated by U.S. EPA, bearing a fuel economy and greenhouse gas rating of 9 oe 10 as regulated under 40 CFR Section 600 Subpart D.

**NEIGHBORHOOD ELECTRIC VEHICLE (NEV).** A motor vehicle that meets the definition of "low-speed vehicle" either in Section 385.5 of the Vehicle Code or in 49CFR571.500 (as it existed on July 1, 2000), and is certified to zero-emission vehicle standards.

**TENANT-OCCUPANTS.** Building occupants who inhabit a building during its normal hours of operation as permanent occupants, such as employees, as distinguished from customers and other transient visitors.

**VANPOOL VEHICLE.** Eligible vehicles are limited to any motor vehicle, other than a motortruck or truck tractor, designed for carrying more than 10 but not more than 15 persons including the driver, which is maintained and used primarily for the nonprofit work-related transportation of adults for the purpose of ridesharing.

**Note:** Source: Vehicle Code, Division 1, Section 668

**ZEV.** Any vehicle certified to zero-emission standards.

**SECTION 5.106 SITE DEVELOPMENT**

**5.106.1 STORM WATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB LESS THAN ONE ACRE OF LAND.** Newly constructed projects and additions which disturb less than one acre of land, and are not part of a larger common plan of development or sale, shall prevent the pollution of storm water runoff from the construction activities through one or more of the following measures:

**5.106.1.1 Local ordinance.** Comply with a lawfully enacted storm water management and/or erosion control ordinance.

**5.106.1.2 Best Management Practices (BMPs).** Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMPs.

1. Soil loss BMPs that should be considered for implementation as appropriate for each project include, but are not limited to, the following:
  - a. Scheduling construction activity during dry weather, when possible.
  - b. Preservation of natural features, vegetation, soil, and buffers around surface waters.
  - c. Drainage swales or lined ditches to control stormwater flow.
  - d. Mulching or hydroseeding to stabilize disturbed soils.
  - e. Erosion control to protect slopes.
  - f. Protection of storm drain inlets (gravel bags or catch basin inserts).
  - g. Perimeter sediment control (perimeter silt fence, fiber rolls).
  - h. Sediment trap or sediment basin to retain sediment on site.
  - i. Stabilized construction exits.
  - j. Wind erosion control.
  - k. Other soil loss BMPs acceptable to the enforcing agency.
2. Good housekeeping BMPs to manage construction equipment, materials, non-stormwater discharges and wastes that should be considered for implementation as appropriate for each project include, but are not limited to, the following:
  - a. Dewatering activities.
  - b. Material handling and waste management.
  - c. Building materials stockpile management.
  - d. Management of washout areas (concrete, paints, stucco, etc.).
  - e. Control of vehicle/equipment fueling to contractor's staging area.
  - f. Vehicle and equipment cleaning performed off site.
  - g. Spill prevention and control.
  - h. Other housekeeping BMPs acceptable to the enforcing agency.

**5.106.2 STORMWATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB ONE OR MORE ACRES OF LAND.** Comply with all lawfully enacted stormwater discharge regulations for projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of a larger common plan of development sale.

**Note:** Projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of the larger common plan of development or sale must comply with the post-construction requirements detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board of the Lahontan Regional Water Quality Control Board (for projects in the Lake Tahoe Hydrologic Unit).

The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff (pre-project hydrology) with the installation of postconstruction stormwater management measures. The NPDES permits emphasize runoff reduction through on-site stormwater use, interception, evapotranspiration, and infiltration through nonstructural controls, such as Low Impact Development (LID) practices, and conversion design measures. Stormwater volume that cannot be addressed using nonstructural practices is required to be captured in structural practices and be approved by the enforcing agency.

Refer to the current applicable permits on the State Water Resources Control Board website at: www.waterboards.ca.gov/constructionstormwater. Consideration to the stormwater runoff management measures should be given during the initial design process for appropriate integration into site development.

**5.106.4 BICYCLE PARKING.** For buildings within the authority of California Building Standards Commission as specified in Section 103, comply with Section 5.106.4.1. For buildings within the authority of the Division of the State Architect pursuant to Section 105, comply with Section 5.106.4.2

**5.106.4.1 Bicycle parking. [BSC-CG]** Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter.

**5.106.4.1.1 Short-term bicycle parking.** If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.  
**Exception:** Additions or alterations which add nine or less visitor vehicular parking spaces.

**5.106.4.1.2 Long-term bicycle parking.** For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

**5.106.4.1.3** For additions or alterations that add 10 or more tenant-occupant vehicular parking spaces, provide secure bicycle parking for 5 percent of the tenant vehicular parking spaces being added, with a minimum of one bicycle parking facility.

**5.106.4.1.4** For new shell buildings in phased projects provide secure bicycle parking for 5 percent of the anticipated tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

**5.106.4.1.5** Acceptable bicycle parking facility for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.106.4.1.4 shall be convenient from the street and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

**Note:** Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates.

**5.106.4.2 Bicycle parking. [DSA-SS]** For public schools and community colleges, comply with Sections 5.106.4.2.1 and 5.106.4.2.2

**5.106.4.2.1 Student bicycle parking.** Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building.

**5.106.4.2.2 Staff bicycle parking.** Provide permanent, secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities shall be convenient from the street or staff parking area and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

**5.106.5.3 Electric vehicle (EV) charging. [N]** Construction to provide electric vehicle infrastructure and facilitate electric vehicle charging shall comply with Section 5.106.5.3.1 and shall be provided in accordance with regulations in the California Building Code and the California Electrical Code.

**Exceptions:**  
1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:  
a. Where there is no local utility power supply  
b. Where the local utility is unable to supply adequate power.  
c. Where there is evidence suitable to the local enforcement agency substantiating the local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.  
2. Parking spaces accessible only by automated mechanical car parking systems are not required to comply with this code section

**5.106.5.3.1 EV capable spaces.**  
[N] EV capable spaces shall be provided in accordance with Table 5.106.5.3.1 and the following requirements:

1. Raceways complying with the California Electrical Code and no less than 1-inch (25 mm) diameter shall be provided and shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the EV capable and into a suitable listed cabinet, box, enclosure or equivalent. A common raceway may be used to serve multiple EV charging spaces.
2. A service panel or subpanel (s) shall be provided with panel space and electrical load capacity for a dedicated 208/240 volt, 40-ampere minimum branch circuit for each EV capable space, with delivery of 30-ampere minimum to an installed EVSE at each EVCS.
3. The electrical system and any on-site distribution transformers shall have sufficient capacity to supply full rated amperage at each EV capable space.
4. The service panel or subpanel circuit directory shall identify the reserved recurrent protective devices space(s) as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE."

**Note:** A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by an enforcement agency. See vehicle Code Section 22511.2 for further details.

TOTAL NUMBER OF ACTUAL PARKING SPACES	NUMBER OF REQUIRED EV CAPABLE SPACES	NUMBER OF EVCS (EV CAPABLE SPACES PROVIDED WITH EVSE)/2
0-9	0	0
10-25	2	0
26-50	8	2
51-75	13	3
76-100	17	4
101-150	25	6
151-200	35	9
201 AND OVER	20% of total <sup>1</sup>	25% of EV capable spaces <sup>1</sup>

1. Where there is insufficient electrical supply.
  2. The number of required EVCS (EV capable spaces provided with EVSE) in column 3 count towards the total number of required EV capable spaces shown in column 2.
- 5.106.5.3.2 Electric vehicle charging stations (EVCS)**  
EV capable spaces shall be provided with EVSE to create EVCS in the number indicated in Table 5.106.5.3.1. The EVCS required by Table 5.106.5.3.1 may be provided with EVSE in any combination of Level 2 and Direct Current Fast Charging (DCFC), except that at least one Level 2 EVSE shall be provided.  
One EV charger with multiple connectors capable of charging multiple EVs simultaneously shall be permitted if the electrical load capacity required by Section 5.106.5.3.1 for each EV capable space is accumulatively supplied to the EV charger.  
The installation of each DCFC EVSE shall be proportionally to reduce the minimum number of required EV capable spaces without EVSE by five and reduce proportionally the required electrical load capacity to the service panel or subpanel.

**5.106.5.3.3 Use of automatic load management systems (ALMS).**  
ALMS shall be permitted for EVCS. When ALMS is installed, the required electrical load capacity specified in Section 5.106.5.3.1 for each EVCS may be reduced when serviced by an EVSE controlled by an ALMS. Each EVSE controlled by an ALMS shall deliver a minimum 30 amperes to an EV when charging one vehicle and shall deliver a minimum 3.3 kW while simultaneously charging multiple EVs.

**5.106.5.3.4 Accessible EVCS.**  
When EVSE is installed, accessible EVSC shall be provided in accordance with the *California Building Code*, Chapter 11B, Section 11B-228.3.  
**Note:** For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

**5.106.5.4 Electric Vehicle (EV) charging: medium-duty and heavy-duty. [N]**  
Construction shall comply with section 5.106.5.4.1 to facilitate future installation of electric vehicle supply equipment (EVSE). Construction for warehouses, grocery stores and retail stores with planned off-street loading spaces shall also comply with Section 5.106.5.4.1 for future installation of medium- and heavy-duty EVSE.

- Exceptions:**
1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:
    - a. Where there is no local utility power supply.
    - b. Where the local utility is unable to supply adequate power.
    - c. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.
- When EVSE(s) are installed, it shall be in accordance with the *California Building Code*, the *California Electrical Code* and as follows:

**5.106.5.4.1 Electric vehicle charging readiness requirements for warehouse, grocery stores and retail stores with planned off-street loading spaces.**  
[N] In order to avoid future demolition when adding EV charging supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s) or subpanel(s) shall be installed at the time of construction in accordance with the California Electrical Code. Construction plans and specifications shall include but are not limited to, the following:

1. The transformer, main service equipment and subpanel shall meet the minimum power requirement in Table 5.106.5.4.1 to accommodate the dedicated branch circuits for the future installation of EVSE.
2. The construction documents shall indicate on or more location(s) convenient to the planned offstreet loading space(s) reserved for medium- and heavy-duty ZEV charging cabinets and charging dispensers, and a pathway reserved for routing of conduit from the termination of the raceway(s) or busway(s) to the charging cabinet(s) and dispenser(s) as shown in Table 5.106.5.4.1
3. Raceway(s) or busway(s) originating at a main service panel or a subpanel(s) serving the area where potential future medium- and heavy-duty EVSE will be located and shall terminate in close proximity to the potential future location of the charging equipments for medium- and heavy-duty vehicles.
4. The raceway(s) or busway(s) shall be sufficient size to carry the minimum additional system load to the future location of the charging for medium- and heavy-duty ZEVs as shown in Table 5.106.5.4.1.

BUILDING TYPE	BUILDING SIZE (SQ. FT.)	NUMBER OF OFF-STREET LOADING SPACES	ADDITIONAL CAPACITY REQUIRED (KVA) FOR RACEWAY & BUSWAY AND TRANSFORMER & PANEL
Grocery	10,000 to 90,000	1 or 2	200
	Greater than 90,000	3 or Greater	400
Retail	10,000 to 135,000	1 or 2	200
	Greater than 135,000	3 or Greater	400
Warehouse	20,000 to 256,000	1 or 2	200
	Greater than 256,000	3 or Greater	400

**5.106.8 LIGHT POLLUTION REDUCTION. [N].** I Outdoor lighting systems shall be designed and installed to comply with the following:

1. The minimum requirements in the California Energy Code for Lighting Zones 0-4 as defined in Chapter 10, Section 10-114 of the California Administrative Code; and
2. Backlight (B) ratings as defined in IES TM-15-11 (shown in Table A-1 in Chapter 8);
3. Uplight and Glare ratings as defined in California Energy Code (shown in Tables 130.2-A and 130.2-B in Chapter 8) and
4. Allowable BUG ratings not exceeding those shown in Table 5.106.8. [N] or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

**Exceptions: [N]**

1. Luminaires that qualify as exceptions in Sections 130.2 (b) and 140.7 of the California Energy Code.
2. Emergency lighting.
3. Building facade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6.
4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and methods of construction.
5. Luminaires with less than 6,200 initial luminaire lumens.

ALLOWABLE RATING	LIGHTING ZONE LZ0	LIGHTING ZONE LZ1	LIGHTING ZONE LZ2	LIGHTING ZONE LZ3	LIGHTING ZONE LZ4
<b>MAXIMUM ALLOWABLE BACKLIGHT RATING</b> 3					
Luminaire greater than 2 mounting heights (MH) from property line	N/A	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1-2 MH from property line	N/A	B2	B3	B4	B4
Luminaire back hemisphere is 0.5-1 MH from property line	N/A	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	B0	B0	B1	B2
<b>MAXIMUM ALLOWABLE UPLIGHT RATING (U)</b>					
For area lighting 4	N/A	U0	U0	U0	U0
For all other outdoor lighting, including decorative luminaires	N/A	U1	U2	U3	UR

**DISCLAIMER:** THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

MAXIMUM ALLOWABLE GLARE RATING (G)					
<b>MAXIMUM ALLOWABLE GLARE RATING (G)</b>	N/A	G1	G2	G3	G4
<b>MAXIMUM ALLOWABLE GLARE RATING (G)</b>	N/A	G0	G1	G1	G2
<b>MAXIMUM ALLOWABLE GLARE RATING (G)</b>	N/A	G0	G0	G1	G1
<b>MAXIMUM ALLOWABLE GLARE RATING (G)</b>	N/A	G0	G0	G0	G1

1. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the California Energy Code and Chapter 10 of the California Administrative Code.

2. For property lines that about public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that about public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.

3. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaires located in these areas shall meet U-value limits for "all other outdoor lighting"

**5.106.8.1 Facing- Backlight**  
Luminaires within 2MH of a property line shall be oriented so that the nearest property line is behind the fixture, and shall comply with the backlight rating specified in Table 5.106.8 based on the lighting zone and distance to the nearest point of that property line.  
**Exception: Corners.** If two property lines (or two segments of the same property line) have equidistant point to the luminaire, then the luminaire may be oriented so that the intersection of the two lines (the corner) is directly behind the luminaire. The luminaire shall still use the distance to the nearest point(s) on the property lines to determine the required backlight rating.

**5.106.8.2 Facing-Glare.**  
For luminaires covered by 5.106.8.1, if a property line also exists within or extends into the front hemisphere within 2MH of the luminaire then the luminaire shall comply with the more stringent glare rating specified in Table 5.106.8 based on the lighting zone and distance to the nearest point on the nearest property line within the front hemisphere.

**Note: [N]**  
1. See also *California Building Code*, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.  
2. Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for IES TM-15-11 Table A-1, *California Energy Code* Tables 130.2-A and 130.2-B.  
3. Refer to the *California Building Code* for requirements for additions and alterations.

**5.106.10 GRADING AND PAVING.** Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales.
  2. Water collection and disposal systems.
  3. French drains.
  4. Water retention gardens.
  5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.
- Exception:** Additions and alterations not altering the drainage path.

**5.106.12 SHADE TREES [DSA-SS].** Shade Trees shall be planted to comply with Sections 5.106.12.1, 5.106.12.2, and 5.106.12.3. Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6.

**5.106.12.1 Surface parking areas.** Shade tree plantings, minimum #10 container size or equal, shall be installed to provide shade over 50 percent of the parking area within 15 years.

**Exceptions:** Surface parking area covered by solar photovoltaic shade structures with roofing materials that comply with Table AS.106.11.2.2 in Appendix A5 shall be permitted in whole or in part in lieu of shade tree planting.

**5.106.12.2 Landscape areas.** Shade tree plantings, minimum #10 container size or equal shall be installed to provide shade of 20% of the landscape area within 15 years.

**Exceptions:** Playfields for organized sport activity are not included in the total area calculation.

**5.106.12.3. Hardscape areas.** Shade tree plantings, minimum #10 container size or equal shall be installed to provide shade over 20 percent of the hardscape area within 15 years.

- Exceptions:**
1. Walks, hardscape areas covered by solar photovoltaic shade structures or shade structures with roofing materials that comply with Table AS.106.11.2.2 in Appendix A5 shall be permitted in whole or in part in lieu of shade tree planting.
  2. Designated and marked play areas of organized sport activity are not included in the total area calculation.

**DIVISION 5.2 ENERGY EFFICIENCY**

**SECTION 5.201 GENERAL**

**5.201.1 Scope [BSC-CG].** *California Energy Code [DSA-SS].* For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.

**DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION**

**SECTION 5.301 GENERAL**

**5.301.1 Scope.** The provisions of this chapter shall establish the means of conserving water use indoors, outdoors and in wastewater conveyance.

**SECTION 5.302 DEFINITIONS**

**5.302.1 Definitions.** The following terms are defined in Chapter 2 (*and are included here for reference*)

**EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF) [DSA-SS].** An adjustment factor when applied to reference evapotranspiration that adjusts for plant factors and irrigation efficiency, which are two major influences on the amount of water that needs to be applied to the landscape.

**FOOTPRINT AREA [DSA-SS].** The total area of the furthest exterior wall of the structure projected to natural grade, not including exterior areas such as stairs, covered walkways, patios and decks.

**METERING FAUCET.** A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The volume or cycle duration can be fixed or adjustable.

**GRAYWATER.** Pursuant to Health and Safety Code Section 17922

# 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE NONRESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

## SECTION 5.303 INDOOR WATER USE

**5.303.1 METERS.** Separate submeters or metering devices shall be installed for the uses described in Sections 503.1.1 and 503.1.2.

**5.303.1.1 Buildings in excess of 50,000 square feet.** Separate submeters shall be installed as follows:

- For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.
- Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:
  - Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s).
  - Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s).
  - Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW).

**5.303.1.2 Excess consumption.** A separate submeter or metering device shall be provided for each tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day.

**5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS.** Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

**5.303.3.1 Water Closets.** The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type toilets.

**Note:** The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

**5.303.3.2 Urinals.**  
**5.303.3.2.1 Wall-mounted Urinals.** The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush.  
**5.303.3.2.2 Floor-mounted Urinals.** The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush.

**5.303.3.3 Showerheads. [BSC-CG]**  
**5.303.3.3.1 Single showerhead.** Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

**5.303.3.3.2 Multiple showerheads serving one shower.** When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.

**Note:** A hand-held shower shall be considered a showerhead.

**5.303.3.4 Faucets and fountains.**

**5.303.3.4.1 Nonresidential Lavatory faucets.** Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.

**5.303.3.4.2 Kitchen faucets.** Kitchen faucets shall have a maximum flow rate of not more than 1.8 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 gallons per minute at 60 psi.

**5.303.3.4.3 Wash fountains.** Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute/20 [rim space (inches)] at 60 psi.

**5.303.3.4.4 Metering faucets.** Metering faucets shall not deliver more than 0.20 gallons per cycle.

**5.303.3.4.5 Metering faucets for wash fountains.** Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per minute/20 [rim space (inches)] at 60 psi.

**Note:** Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

**5.303.3.4.6 Pre-rinse spray valve**  
When installed, shall meet the requirements in the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations), 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.

**FOR REFERENCE ONLY:** The following table and code section have been reprinted from the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations), Section 1605.1 (h)(4) and Section 1605.3 (h)(4)(A).

TABLE H-2	
STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALVES MANUFACTURED ON OR AFTER JANUARY 28, 2019	
PRODUCT CLASS	MAXIMUM FLOW RATE (gpm)
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20
Product Class 3 (> 8.0 ozf)	1.28

**5.303.4 COMMERCIAL KITCHEN EQUIPMENT.**

**5.303.4.1 Food Waste Disposers.** Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.

**Note:** This code section does not affect local jurisdiction authority to prohibit or require disposer installation.

**5.303.5 AREAS OF ADDITION OR ALTERATION.** For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply to new additions or areas of alteration to the building.

**5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS.** Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code* and in Chapter 6 of this code.

**SECTION 5.304 OUTDOOR WATER USE**  
**5.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS.** Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

**Notes:**  
1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code of Regulations, Title 23, Chapter 2.7, Division 2.  
2. MWELO and supporting documents, including a water budget calculator, are available at: <https://www.water.ca.gov/>.

**5.304.6 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS.** For public schools and community colleges, landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, *California Code of Regulations*, except that the evapotranspiration adjustment factor (ETAF) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35.

**Exception:** Any project with an aggregate landscape area of 2,500 square feet or less may comply with the prescriptive measures contained in Appendix D of the MWELO.

**5.304.6.1 Newly constructed landscapes.** New construction projects with an aggregate landscape area equal to or greater than 500 square feet.

**5.304.6.2 Rehabilitated landscapes.** Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet.

## DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

**SECTION 5.401 GENERAL**  
**5.401.1 SCOPE.** The provisions of this chapter shall outline means of achieving material conservation and resource efficiency through protection of buildings from exterior moisture, construction waste diversion, employment of techniques to reduce pollution through recycling of materials, and building commissioning or testing and adjusting.

**SECTION 5.402 DEFINITIONS**  
**5.402.1 DEFINITIONS.** The following terms are defined in Chapter 2 (*and are included here for reference*)

**ADJUST.** To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust a damper.

**BALANCE.** To proportion flows within the distribution system, including sub-main, branches and terminals, according to design quantities.

**BUILDING COMMISSIONING.** A systematic quality assurance process that spans the entire design and construction process, including verifying and documenting that building systems and components are planned, designed, installed, tested, operated and maintained to meet the owner's project requirements.

**ORGANIC WASTE.** Food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food soiled paper waste that is mixed in with food waste.

**TEST.** A procedure to determine quantitative performance of a system or equipment

**SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT**  
**5.407.1 WEATHER PROTECTION.** Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 (Weather Protection), manufacturer's installation instructions or local ordinance, whichever is more stringent.

**5.407.2 MOISTURE CONTROL.** Employ moisture control measures by the following methods.

**5.407.2.1 Sprinklers.** Design and maintain landscape irrigation systems to prevent spray on structures.

**5.407.2.2 Entries and openings.** Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings as follows:

**5.407.2.2.1 Exterior door protection.** Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following:

- An installed awning at least 4 feet in depth.
- The door is protected by a roof overhang at least 4 feet in depth.
- The door is recessed at least 4 feet.
- Other methods which provide equivalent protection.

**5.407.2.2.2 Flashing.** Install flashings integrated with a drainage plane.

## SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

**5.408.1 CONSTRUCTION WASTE MANAGEMENT.** Recycle and/or salvage for reuse a minimum of 65% 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.

**5.408.1.1 Construction waste management plan.** Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan that:

- Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.
- Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
- Identifies diversion facilities where construction and demolition waste material collected will be taken.
- Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

**5.408.1.2 Waste Management Company.** Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section.

**Note:** The owner or contractor shall make the determination if the construction and demolition waste material will be diverted by a waste management company.

**Exceptions to Sections 5.408.1.1 and 5.408.1.2:**

- Excavated soil and land-clearing debris.
- Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.
- Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets.

**5.408.1.3 Waste stream reduction alternative.** The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 65% minimum requirement as approved by the enforcing agency.

**5.408.1.4 Documentation.** Documentation shall be provided to the enforcing agency which demonstrates compliance with Sections 5.408.1.1, through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.

**Notes:**

- Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" located [www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen](http://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen) may be used to assist in documenting compliance with the waste management plan.
- Mixed construction and demolition debris processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle). [www.cdfr.ca.gov/](http://www.cdfr.ca.gov/)

**5.408.2 UNIVERSAL WASTE. [A]** Additions and alterations to a building or tenant space that meet the scoping provisions in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste items such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited Universal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste materials shall be included in the construction documents.

**Note:** Refer to the Universal Waste Rule link at: <http://www.dtscc.ca.gov/universalwaste/>

**5.408.3 EXCAVATED SOIL AND LAND CLEARING DEBRIS.** 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.

**Exception:** Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation.

**Notes:**

- If contamination by disease or pest infestation is suspected, contact the County Agricultural Commissioner and follow its direction for recycling or disposal of the material.
- For a map of known pest and/or disease quarantine zones, consult with the California Department of Food and Agriculture. [www.cdffa.ca.gov/](http://www.cdffa.ca.gov/)

**SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS**  
**5.410.1 RECYCLING BY OCCUPANTS.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a locally enacted local recycling ordinance, if more restrictive.

**Exception:** Rural jurisdictions that meet and apply for the exemption in Public Resources Code 42849.82 (a)(2)(A) et seq. shall also be exempt from the organic waste portion of this section.

**5.410.1 Additions.** All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site.

**Exception:** Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area.

**5.410.1.2 Sample ordinance.** Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the *Public Resources Code*. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act).

**Note:** A sample ordinance for use by local agencies may be found in Appendix A of the document at the CalRecycle's web site.

**5.410.2 COMMISSIONING. [N]** New buildings 10,000 square feet and over. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements.

Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. For I-occupancies that are not regulated by OSHPD or for I-occupancies and L-occupancies that are not regulated by the California Energy Code Section 100.0 Scope, all requirements in Sections 5.410.2 through 5.410.2.6 shall apply.

**Note:** For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting systems and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements

Commissioning requirements shall include:

- Owner's or Owner representative's project requirements.
- Basis of design.
- Commissioning measures shown in the construction documents.
- Commissioning plan.
- Functional performance testing.
- Documentation and training.
- Commissioning report.

**Exceptions:**

- Unconditioned warehouses of any size.
- Areas less than 10,000 square feet used for offices or other conditioned accessory spaces within unconditioned warehouses.
- Tenant improvements less than 10,000 square feet as described in Section 303.1.1.
- Open parking garages of any size, or open parking garage areas, of any size, within a structure.

**Note:** For the purposes of this section, unconditioned shall mean a building, area, or room which does not provide heating and/or air conditioning.

**Informational Notes:**

- IAS AC 476 is an accreditation criteria for organizations providing training and/or certification of commissioning personnel. AC 476 is available to the Authority Having Jurisdiction as a reference for qualifications of commissioning personnel. AC 476 does not certify individuals to conduct functional performance tests or to adjust and balance systems.
- Functional performance testing for heating, ventilation, air conditioning systems and lighting controls must be performed in compliance with the California Energy Code.

**5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N]** The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:

- Environmental and sustainability goals.
- Building sustainable goals.
- Indoor environmental quality requirements.
- Project program, including facility functions and hours of operation, and need for after hours operation.
- Equipment and systems expectations.
- Building occupant and operation and maintenance (O&M) personnel expectations.

**5.410.2.2 Basis of Design (BOD). [N]** A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project. The Basis of Design document shall cover the following systems:

- Renewable energy design.
- Landscape irrigation systems.
- Water reuse system.

**5.410.2.3 Commissioning plan. [N]** Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following:

- General project information.
- Commissioning goals.
- Systems to be commissioned. Plans to test systems and components shall include:
  - An explanation of the original design intent.
  - Equipment and systems to be tested, including the extent of tests.
  - Functions to be tested.
  - Conditions under which the test shall be performed.
  - Measurable criteria for acceptable performance.
- Commissioning team information.
- Commissioning process activities, schedules and responsibilities. Plans for the completion of commissioning shall be included.

**5.410.2.4 Functional performance testing. [N]** Functional performance tests shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. Functional performance testing reports shall contain information addressing each of the building components tested, the testing methods utilized, and include any readings and adjustments made.

**5.410.2.5 Documentation and training. [N]** A Systems Manual and Systems Operations Training are required, including Occupational Safety and Health Act (OSHA) requirements in *California Code of Regulations* (CCR), Title 8, Section 5142, and other related regulations.

**5.410.2.5.1 Systems manual. [N]** Documentation of the operational aspects of the building shall be completed within the systems manual and delivered to the building owner or representative. The systems manual shall include the following:

- Site information, including facility description, history and current requirements.
- Site contact information.
- Basic operations and maintenance, including general site operating procedures, basic troubleshooting, recommended maintenance requirements, site events log.
- Major systems.
- Site equipment inventory and maintenance notes.
- A copy of verifications required by the enforcing agency or this code.
- Other resources and documentation, if applicable.

**5.410.2.5.2 Systems operations training. [N]** A program for training of the appropriate maintenance staff for each equipment type and/or system shall be developed and documented in the commissioning report and shall include the following:

- System/equipment overview (what it is, what it does and with what other systems and/or equipment it interfaces).
- Review and demonstration of servicing/preventive maintenance.
- Review of the information in the Systems Manual.
- Review of the record drawings on the system/equipment.

**5.410.2.6 Commissioning report. [N]** A report of commissioning process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or representative.

**5.410.4 TESTING AND ADJUSTING. New buildings less than 10,000 square feet.** Testing and adjusting of systems shall be required for new buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1.

**5.410.4.2 (Reserved)**

**Note:** For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting system and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements and Sections 120.5, 120.6, 130.4, and 140.9(b)(3) for additional testing requirements of specific systems.

**5.410.4.2 Systems.** Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project:

- Renewable energy systems.
- Landscape irrigation systems.
- Water reuse systems.

**5.410.4.3 Procedures.** Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.

**5.410.4.3.1 HVAC balancing.** In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, the system shall be balanced in accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance Council National Standards or as approved by the enforcing agency.

**DISCLAIMER:** THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENTS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

**5.410.4.4 Reporting.** After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.

**5.410.4.5 Operation and maintenance (O & M) manual.** Provide the building owner or representative with detailed operating and maintenance instructions and copies of warranties/warranties for each system. O & M instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related regulations.

**5.410.4.5.1 Inspections and reports.** Include a copy of all inspection verifications and reports required by the enforcing agency.

## DIVISION 5.5 ENVIRONMENTAL QUALITY

**SECTION 5.501 GENERAL**  
**5.501.1 SCOPE.** The provisions of this chapter shall outline means of reducing the quantity of air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of a building's installers, occupants and neighbors.

**SECTION 5.502 DEFINITIONS**  
**5.502.1 DEFINITIONS.** The following terms are defined in Chapter 2 (*and are included here for reference*)

**ARTERIAL HIGHWAY.** A general term denoting a highway primarily for through traffic usually on a continuous route.

**A-WEIGHTED SOUND LEVEL (dBA).** The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made.

**1 BTU/HOUR.** British thermal units per hour, also referred to as Btu. The amount of heat required to raise one pound of water one degree Fahrenheit per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Btu, the amount of heat required to melt a ton (2,000 pounds) of ice at 32° Fahrenheit.

**COMMUNITY NOISE EQUIVALENT LEVEL (CNEL).** A metric similar to the day-night average sound level (Ldn), except that a 5 decibel adjustment is added to the equivalent continuous sound exposure level for evening hours (7pm to 10pm) in addition to the 10 dB nighttime adjustment used in the Ldn.

**COMPOSITE WOOD PRODUCTS.** Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panel, structural composite lumber, oriented strand board, glued laminated timber, timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of Regulations (CCR), Title 17, Section 93120.1(a).

**Note:** See CCR, Title 17, Section 93120.1.

**DAY-NIGHT AVERAGE SOUND LEVEL (Ldn).** The A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 dB adjustment added to sound levels occurring during nighttime hours (10p.m. to 7 a.m.).

**DECIBEL (db).** A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a reference quantity.

**ELECTRIC VEHICLE (EV).** An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the *California Electrical Code*, off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats, and the like, are not included.

**ELECTRIC VEHICLE CHARGING STATION(S) (EVCS).** One or more spaces intended for charging electric vehicles.

**ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE).** The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

**ENERGY EQUIVALENT (NOISE) LEVEL (Leq).** The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time of period of interest.

**EXPRESSWAY.** An arterial highway for through traffic which may have partial control of access, but which may or may not be divided or have grade separations at intersections.

**FREEWAY.** A divided arterial highway with full control of access and with grade separations at intersections.

**GLOBAL WARMING POTENTIAL (GWP).** The radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time. Carbon dioxide is the reference compound with a GWP of one.

**GLOBAL WARMING POTENTIAL VALUE (GWP VALUE).** A 100-year GWP value published by the Intergovernmental Panel on Climate Change (IPCC) in either its Second Assessment Report (SAR) (IPCC, 1995) or its Fourth Assessment A-3 Report (AR4) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of Table 2.14.; the AR4 GWP values are found in column "100 yr" of Table 2.14.

**HIGH-GWP REFRIGERANT.** A compound used as a heat transfer fluid or gas that is: (a) a chlorofluorocarbon, a hydrochlorofluorocarbon, a hydrofluorocarbon, a perfluorocarbon, or any compound or blend of compounds, with a GWP value equal to or greater than 150, or (B) any ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

**LONG RADIUS ELBOW.** Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.5 times the pipe diameter.

**LOW-GWP REFRIGERANT.** A compound used as a heat transfer fluid or gas that: (A) has a GWP value less than 150, and (B) is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

**MERV.** Filter minimum efficiency reporting value, based on ASHRAE 52.2-1999.

**MAXIMUM INCREMENTAL REACTIVITY (MIR).** The maximum change in weight of ozone formed by adding a compound to the "Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O<sub>3</sub>/g ROG).

**PRODUCT-WEIGHTED MIR (PW-MIR).** The sum of all weighted-MIR for all ingredients in a product subject to this article. The PW-MIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).

**PSIG.** Pounds per square inch, gauge.

**REACTIVE ORGANIC COMPOUND (ROC).** Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

**SCHRADER ACCESS VALVES.**

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NONRESIDENTIAL MANDATORY MEASURES, SHEET 3 (January 2023)**

**5.504.4 FINISH MATERIAL POLLUTANT CONTROL.** Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.

**5.504.4.1 Adhesives, sealants and caulks.** Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards:

- Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products as specified in subsection 2, below.
- Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, commencing with Section 94507.

TABLE 5.504.4.1 - ADHESIVE VOC LIMIT 1,2

Less Water and Less Exempt Compounds in Grams per Liter	
ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVES	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT SPECIFICALLY LISTED	50
<b>SPECIALTY APPLICATIONS</b>	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
<b>SUBSTRATE SPECIFIC APPLICATIONS</b>	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

- IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.
- FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168, [www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF](http://www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF)

TABLE 5.504.4.2 - SEALANT VOC LIMIT

Less Water and Less Exempt Compounds in Grams per Liter	
SEALANTS	CURRENT VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
<b>SEALANT PRIMERS</b>	
ARCHITECTURAL	
NONPOROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

**5.504.4.3 Paints and coatings.** Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in Subsections 4.21, 4.36 and 4.37 of the 2007 California Air Resources Board Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 5.504.4.3 shall apply.

**5.504.4.3.1 Aerosol Paints and coatings.** Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of California Code of Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8 Rule 49.

TABLE 5.504.4.3 - CONT.

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS	
COATING CATEGORY	CURRENT VOC LIMIT
<b>SPECIALTY COATINGS</b>	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH-TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS <sup>1</sup>	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS:	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

- GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS
- THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.
- VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

**5.504.4.3.2 Verification.** Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

- Manufacturer's product specification
- Field verification of on-site product containers

**5.504.4.4 Carpet Systems.** All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specifications 01350).

See California Department of Public Health's website for certification programs and testing labs. <https://www.cdph.ca.gov/Programs/CCDPHP/DEOD/CEHLB/IAQ/Pages/VOC.aspx#material>

**5.504.4.4.1 Carpet cushion.** All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specifications 01350).

See California Department of Public Health's website for certification programs and testing labs. <https://www.cdph.ca.gov/Programs/CCDPHP/DEOD/CEHLB/IAQ/Pages/VOC.aspx#material>

**5.504.4.4.2 Carpet adhesive.** All carpet adhesive shall meet the requirements of Table 5.504.4.1.

**5.504.4.5 Composite wood products.** Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 et seq.). Those materials not exempted under the ATCM must meet the specified emission limits, as shown in Table 5.504.4.5.

- 5.504.4.5.3 Documentation.** Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:
- Product certifications and specifications.
  - Chain of custody certifications.
  - Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
  - Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards.
  - Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION	
PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD <sup>1</sup>	0.13

- VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.
- THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16 INCHES (8 MM).

**5.504.4.6 Resilient flooring systems.** Where resilient flooring is installed, at least 80 percent of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specifications 01350).

See California Department of Public Health's website for certification programs and testing labs. <https://www.cdph.ca.gov/Programs/CCDPHP/DEOD/CEHLB/IAQ/Pages/VOC.aspx#material>

**5.504.4.6.1 Verification of compliance.** Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.

**5.504.4.7 Thermal insulation** Comply with the requirements of the California Department of Public Health, "Standard Method of the Testing and Evaluation of Volatile Organic Chemical Emission from Indoor Sources Using Environmental Chambers," Version 1.2, January 12, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs. <https://www.cdph.ca.gov/Programs/CCDPHP/DEOD/CEHLB/IAQ/Pages/VOC.aspx#material>

**5.504.4.7.1 Verification of compliance.** Documentation shall be provided verifying that thermal insulation materials meet the pollutant emission limits.

**5.504.4.8 Acoustical ceiling and wall panels.** Comply with the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs.

**5.504.4.8.1 Verification of compliance.** Documentation shall be provided verifying that acoustical finish materials meet the pollutant emission limits.

**5.504.5.3 Filters.** In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 13. MERV 13 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

**Exceptions:** Existing mechanical equipment.

**5.504.5.3.1 Labeling.** Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.

**5.504.7 ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL.** Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations or policies of any city, county, city and county, California Community College, campus of the California State University, or campus of the University of California, whichever are more stringent. When ordinances, regulations or policies are not in place, post signage to inform building occupants of the prohibitions.

**SECTION 5.505 INDOOR MOISTURE CONTROL**

**5.505.1 INDOOR MOISTURE CONTROL.** Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see Section 5.407.2 of this code.

**SECTION 5.506 INDOOR AIR QUALITY**

**5.506.1 OUTSIDE AIR DELIVERY.** For mechanically ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the California Energy Code, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.

**5.506.2 CARBON DIOXIDE (CO<sub>2</sub>) MONITORING.** For buildings or additions equipped with demand control ventilation, CO<sub>2</sub> sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, Section 120(c)(4).

**5.506.3 Carbon dioxide (CO<sub>2</sub>) monitoring in classrooms.** (DSA-SS) Each public K-12 school classroom, as listed in Table 120.1-A of the California Energy Code, shall be equipped with a carbon dioxide monitor or sensor that meets the following requirements:

- The monitor or sensor shall be permanently affixed in a tamper-proof manner in each classroom between 3 and 6 feet (914 mm and 1829 mm) above the floor and at least 5 feet (1524 mm) away from door and operable windows.
- When the monitor or sensor is not integral to an Energy Management Control System (EMCS), the monitor or sensor shall display the carbon dioxide readings on the device. When the sensor is integral to an EMCS, the carbon dioxide readings shall be available to and regularly monitored by facility personnel.
- A monitor shall provide notification through a visual indicator on the monitor when the carbon dioxide levels in the classroom have exceeded 1,100ppm. A sensor integral to an EMCS shall provide notification to facility personnel through a visual and/or audible indicator when the carbon dioxide levels in the classroom have exceeded 1,100ppm.
- The monitor or sensor shall measure carbon dioxide levels at minimum 15-minute intervals and shall maintain a record of previous carbon dioxide measurements of not less than 30 days duration.
- The monitor or sensor used to measure carbon dioxide levels shall have the capacity to measure carbon dioxide levels with a range of 400ppm to 2000ppm or greater.
- The monitor or sensor shall be certified by the manufacturer to be accurate within 75ppm at 1,000ppm carbon dioxide concentration and shall be certified by the manufacturer to require calibration no more frequently than once every 5 years.

**SECTION 5.507 ENVIRONMENTAL COMFORT**

**5.507.4 ACOUSTICAL CONTROL.** Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413, or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.

**Exception:** Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.

**Exception: [DSA-SS]** For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.

**5.507.4.1 Exterior noise transmission, prescriptive method.** Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

- Within the 65 CNEL noise contour of an airport.

**Exceptions:**

- Low or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICLIZ) plan.
  - Low or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.
- Within the 65 CNEL or Low noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

**5.507.4.1.1 Noise exposure where noise contours are not readily available.** Buildings exposed to a noise level of 65 dB Leq, 1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).

**5.507.4.2 Performance Method.** For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq-1hr) of 50 dBA in occupied areas during any hour of operation.

**5.507.4.2.1 Site Features.** Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

**5.507.4.2.2 Documentation of Compliance.** An acoustical analysis documenting complying interior soundlevels shall be prepared by personnel approved by the architect or engineer of record.

**5.507.4.3 Interior sound transmission.** 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: [www.toolbase.org/PDF/CaseStudies/stc\\_icc\\_ratings.pdf](http://www.toolbase.org/PDF/CaseStudies/stc_icc_ratings.pdf).

**SECTION 5.508 OUTDOOR AIR QUALITY**

**5.508.1 Ozone depletion and greenhouse gas reductions.** Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.

**5.508.1.1 Chlorofluorocarbons (CFCs).** Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.

**5.508.1.2 Halons.** Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

**DISCLAIMER:** THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

**5.508.2 Supermarket refrigerant leak reduction.** New commercial refrigeration systems shall comply with the provisions of this section when installed in retail food stores 6,000 square feet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.

**Exception:** Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO<sub>2</sub>), and potentially other refrigerants.

**5.508.2.1 Refrigerant piping.** Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigeration systems except as noted below.

**5.508.2.1.1 Threaded pipe.** Threaded connections are permitted at the compressor rack.

**5.508.2.1.2 Copper pipe.** Copper tubing with an OD less than 1 1/4 inch may be used in systems with a refrigerant charge of 5 pounds or less.

**5.508.2.1.2.1 Anchorage.** One-fourth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.

**5.508.2.1.3 Flared tubing connections.** Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.

**Exception:** Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.

**5.508.2.1.4 Elbows.** Short radius elbows are only permitted where space limitations prohibit use of long radius elbows.

**5.508.2.2 Valves.** Valves and fittings shall comply with the California Mechanical Code and as follows.

**5.508.2.2.1 Pressure relief valves.** For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.

**5.508.2.2.1.1 Pressure detection.** A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.

**5.508.2.2.2 Access valves.** Only Schrader access valves with a brass or steel body are permitted for use.

**5.508.2.2.2.1 Valve caps.** For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.

**5.508.2.2.2.2 Seal caps.** If designed for it, the cap shall have a neoprene O-ring in place.

**5.508.2.2.2.2.1 Chain tethers.** Chain tethers to fit over the stem are required for valves designed to have seal caps.

**Exception:** Valves with seal caps that are not removed from the valve during stem operation.

**5.508.2.3 Refrigerated service cases.** Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel, or be coated to prevent corrosion from these substances.

**5.508.2.3.1 Coil coating.** Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.

**5.508.2.4 Refrigerant receivers.** Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device that indicates the level of refrigerant in the receiver.

**5.508.2.5 Pressure testing.** The system shall be pressure tested during installation prior to evacuation and charging.

**5.508.2.5.1 Minimum pressure.** The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.

**5.508.2.5.2 Leaks.** Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.

**5.508.2.5.3 Allowable pressure change.** The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.

**5.508.2.6 Evacuation.** The system shall be evacuated after pressure testing and prior to charging.

**5.508.2.6.1 First vacuum.** Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.

**5.508.2.6.2 Second vacuum.** Pull a second system vacuum to a minimum of 500 microns and hold for 30 minutes.

**5.508.2.6.3 Third vacuum.** Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.

**CHAPTER 7  
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS**

**702 QUALIFICATIONS**

**702.1 INSTALLER TRAINING.** HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

- State certified apprenticeship programs.
- Public utility training programs.
- Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
- Programs sponsored by manufacturing organizations.
- Other programs acceptable to the enforcing agency.

**702.2 SPECIAL INSPECTION [HCD].**

When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

- Certification by a national or regional green building program or standard publisher.
- Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
- Successful completion of a third party apprentice training program in the appropriate trade.
- Other programs acceptable to the enforcing agency.

**Notes:**











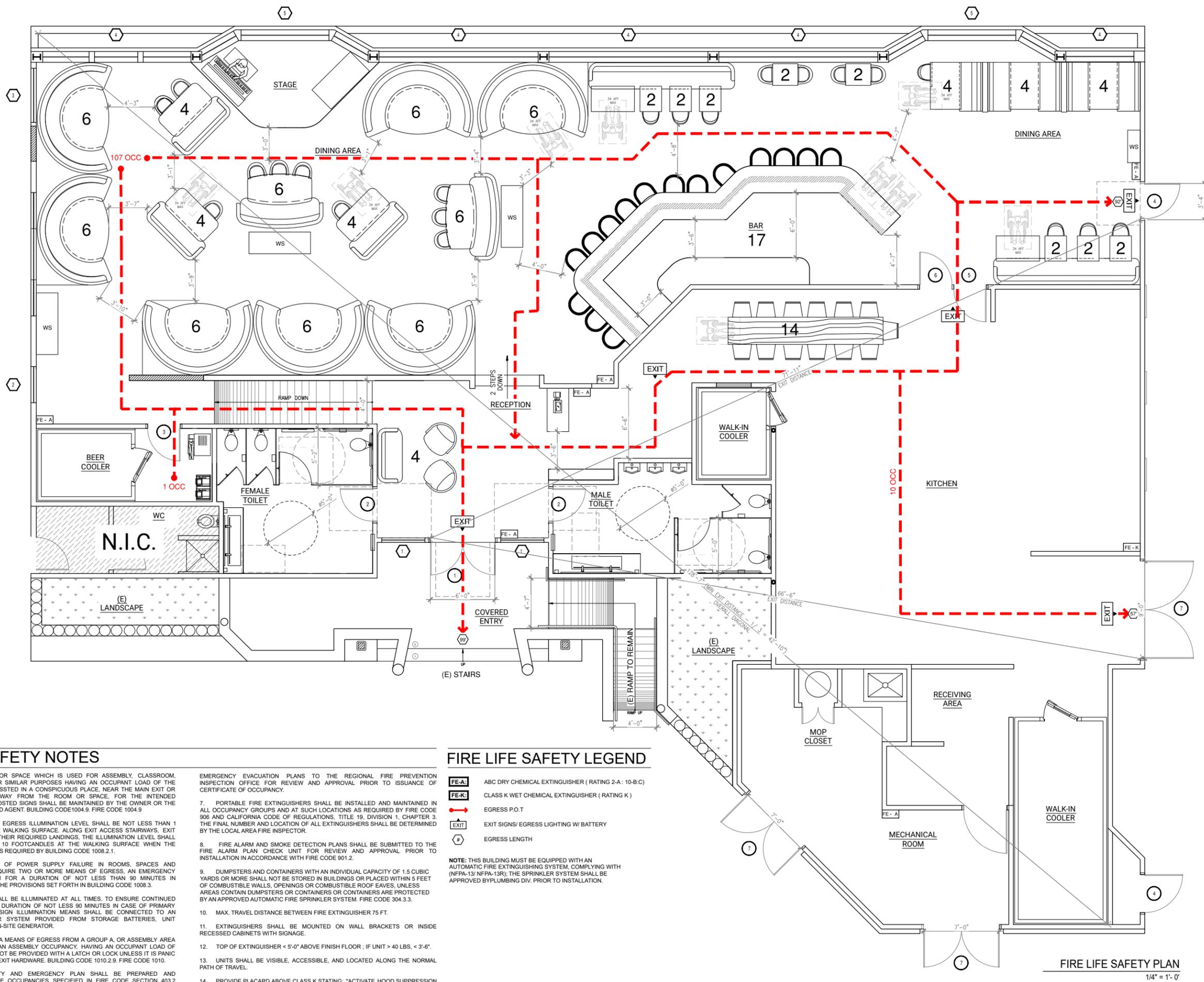


ISSUE DATES	NOTES	INITIALS
11-06-2025	CD SET	N.R.

SHEET TITLE  
**FIRE LIFE SAFETY PLAN**

SHEET TITLE

**A-6.3**



**FIRE SAFETY NOTES**

- EVERY ROOM OR SPACE WHICH IS USED FOR ASSEMBLY, CLASSROOM, DINING, DRINKING OR SIMILAR PURPOSES HAVING AN OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE, NEAR THE MAIN EXIT OR EXIT ACCESS DORRWAY FROM THE ROOM OR SPACE, FOR THE INTENDED CONFIGURATIONS. POSTED SIGNS SHALL BE MAINTAINED BY THE OWNER OR THE OWNER'S AUTHORIZED AGENT. BUILDING CODE 1004.9, FIRE CODE 1004.9
- THE MEANS OF EGRESS ILLUMINATION LEVEL SHALL BE NOT LESS THAN 1 FOOTCANDLE AT THE WALKING SURFACE. ALONG EXIT ACCESS STAIRWAYS, EXIT STAIRWAYS AND AT THEIR REQUIRED LANDINGS, THE ILLUMINATION LEVEL SHALL BE NOT LESS THAN 10 FOOTCANDLES AT THE WALKING SURFACE WHEN THE STAIRWAY IS IN USE AS REQUIRED BY BUILDING CODE 1008.2.1.
- IN THE EVENT OF POWER SUPPLY FAILURE IN ROOMS, SPACES AND BUILDINGS THAT REQUIRE TWO OR MORE MEANS OF EGRESS, AN EMERGENCY ELECTRICAL SYSTEM FOR A DURATION OF NOT LESS THAN 90 MINUTES IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN BUILDING CODE 1008.3.
- EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES. TO ENSURE CONTINUED ILLUMINATION FOR A DURATION OF NOT LESS 90 MINUTES IN CASE OF PRIMARY POWER LOSS, THE SIGN ILLUMINATION MEANS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM PROVIDED FROM STORAGE BATTERIES, UNIT EQUIPMENT OR AN ON-SITE GENERATOR.
- EACH DOOR IN A MEANS OF EGRESS FROM A GROUP A, OR ASSEMBLY AREA NOT CLASSIFIED AS AN ASSEMBLY OCCUPANCY, HAVING AN OCCUPANT LOAD OF 50 OR MORE SHALL NOT BE PROVIDED WITH A LATCH OR LOCK UNLESS IT IS PANIC HARDWARE OR FIRE EXIT HARDWARE. BUILDING CODE 1010.2.9, FIRE CODE 1010.
- A FIRE SAFETY AND EMERGENCY PLAN SHALL BE PREPARED AND MAINTAINED FOR THE OCCUPANCIES SPECIFIED IN FIRE CODE SECTION 403.2 THROUGH 403.11.3.3 AS REQUIRED BY FIRE CODE 403.1. SUBMIT FIRE SAFETY AND

- EMERGENCY EVACUATION PLANS TO THE REGIONAL FIRE PREVENTION INSPECTION OFFICE FOR REVIEW AND APPROVAL PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.
- PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED AND MAINTAINED IN ALL OCCUPANCY GROUPS AND AT SUCH LOCATIONS AS REQUIRED BY FIRE CODE 906 AND CALIFORNIA CODE OF REGULATIONS, TITLE 19, DIVISION 1, CHAPTER 3. THE FINAL NUMBER AND LOCATION OF ALL EXTINGUISHERS SHALL BE DETERMINED BY THE LOCAL AREA FIRE INSPECTOR.
  - FIRE ALARM AND SMOKE DETECTION PLANS SHALL BE SUBMITTED TO THE FIRE ALARM PLAN CHECK UNIT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION IN ACCORDANCE WITH FIRE CODE 901.2.
  - DUMPSTERS AND CONTAINERS WITH AN INDIVIDUAL CAPACITY OF 1.5 CUBIC YARDS OR MORE SHALL NOT BE STORED IN BUILDINGS OR PLACED WITHIN 5 FEET OF COMBUSTIBLE WALLS, OPENINGS OR COMBUSTIBLE ROOF EAVES, UNLESS AREAS CONTAIN DUMPSTERS OR CONTAINERS ARE PROTECTED BY AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM. FIRE CODE 304.3.3.
  - MAX. TRAVEL DISTANCE BETWEEN FIRE EXTINGUISHER 75 FT.
  - EXTINGUISHERS SHALL BE MOUNTED ON WALL BRACKETS OR INSIDE RECESSED CABINETS WITH SIGNAGE.
  - TOP OF EXTINGUISHER < 5'-0" ABOVE FINISH FLOOR ; IF UNIT > 40 LBS. < 3'-6".
  - UNITS SHALL BE VISIBLE, ACCESSIBLE, AND LOCATED ALONG THE NORMAL PATH OF TRAVEL.
  - PROVIDE PLACARD ABOVE CLASS K STATING: "ACTIVATE HOOD SUPPRESSION SYSTEM BEFORE USING CLASS K EXTINGUISHER."

**FIRE LIFE SAFETY LEGEND**

- FE-A:** ABC DRY CHEMICAL EXTINGUISHER ( RATING 2-A : 10-B-C)
- FE-K:** CLASS K WET CHEMICAL EXTINGUISHER ( RATING K )
- EGRESS P.O.T
- EXIT** EXIT SIGNS/ EGRESS LIGHTING W/ BATTERY
- #** EGRESS LENGTH

**NOTE:** THIS BUILDING MUST BE EQUIPPED WITH AN AUTOMATIC FIRE EXTINGUISHING SYSTEM, COMPLYING WITH (NFPA-13/ NFPA-13R); THE SPRINKLER SYSTEM SHALL BE APPROVED BY PLUMBING DIV. PRIOR TO INSTALLATION.

**FIRE LIFE SAFETY PLAN**  
1/4" = 1'-0"









PROJECT

**NEWPORT**

2607 W COAST HWY  
NEWPORT BEACH, CA 92663



BUILT INC.  
9106 SUNSET BLVD.  
WEST HOLLYWOOD, CA  
T:323 857 0409  
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**NEWPORT**  
2607 W COAST HWY  
NEWPORT BEACH, CA 92663

ISSUE DATES	NOTES	INITIALS
11-06-2025	CD SET	N.R.

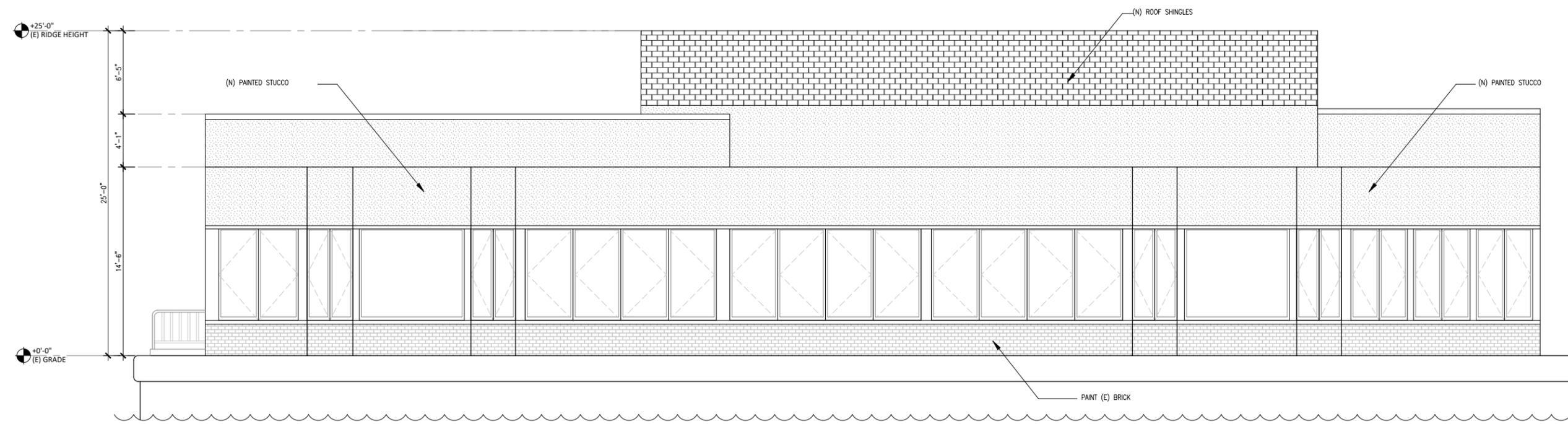
SHEET TITLE  
**PROPOSED EXTERIOR ELEVATION**

SHEET TITLE

**A-7.3**



**PROPOSED EXTERIOR ELEVATION 2**  
1/4" = 1'-0"



**PROPOSED EXTERIOR ELEVATION 1**  
1/4" = 1'-0"





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