



Building and Safety

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<https://www.elsegundo.org/government/departments/community-development/building-and-safety-division>

WASTE REDUCTION AND RECYCLING PLAN Compliance Report 2022 CALGREEN CODE Effective January 1, 2023

CONSTRUCTION WASTE MANAGEMENT PLAN REQUIRED

California Green Building Standards Code Sections 4.408 and 5.408 require the submittal of a construction waste management plan or the submittal of certified waste management facility receipts prior to final inspection. The Certificate of Occupancy (CO) and Temporary Certificate of Occupancy (TCO) cannot be issued without complete documentation and recycling facility receipts.

Submit the complete form and documentation with original recycling facility receipts prior to final inspection. Original, dated recycling facility receipts showing project addresses are required.

PROJECT INFORMATION

Plan Check Number:

Project Address:

Description of Work:

Project Type: Alteration Construction Demolition Addition (Residential) Addition (Commercial)
 Tenant Improvement

Estimated Square Footage:

Start Date:

Completion Date:

PROJECT OWNER CONTACT INFORMATION

Name:

Company:

Address:

City:

Daytime Phone:

Cell Phone:

Email:

REQUIRED DIVERSION AND ACKNOWLEDGEMENT

Project Type	
Project Area (square feet)	
Estimated Debris Weight (lbs)	
Required Diversion (Multiply Weight by 0.65)	

I hereby certify that I have read and state that this information is correct. I understand that the project final approval may be withheld until I comply with California Green Building Standards Code 4.408 or 5.408 which require a minimum of 65% construction and demolition waste diversion or the use of a certified waste management company.

Applicant Signature

Date

CALGREEN CODE - CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

4.408.1, 5.408.1 Construction waste management. Recycle and/or salvage for reuse a **minimum of 65%** of the nonhazardous construction and demolition waste in accordance with either Section 4.408.1, 5.408.1.

4.408.2, 5.408.1.1 Construction waste management plan. Submit a construction waste management plan meeting Items 1 through 5 of Section 4.408.2 or Items 1 through 4 of Section 5.408.1.1.

4.408.3, 5.408.1.2 Waste management company. Utilize a waste management company, approved by the City of El Segundo, which can provide verifiable documentation that diverted construction and demolition waste materials meet the requirements in Section 4.408.2 or 5.408.1.2.

4.408.4, 5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does not exceed 3.4 pounds per square foot of building area (4.408.4) or 2.0 pounds per square foot of building area (5.408.1.3) may be deemed to meet the 65 percent minimum requirement as approved by the El Segundo Building Safety Division.

4.408.5, 5.408.1.4 Documentation. Documentation shall be provided to the inspector which demonstrates compliance with Sections 4.408.2, 4.408.3, or 4.408.4 or 5.408.1.1 through 5.408.1.3.

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.

METHODS OF COMPLIANCE

1. The contractor shall develop and maintain a waste management plan and document diversion and disposal, OR
2. Utilize a waste management company that certifies a minimum 65% waste diversion, OR
3. Waste stream reduction alternative.
 - Non-residential new construction projects with a combined disposal weight of less than 2 pounds per square foot may be deemed to meet the 65% minimum diversion requirement.
 - Residential low rise (3 stories or less) with a combined weight of new construction disposal less than 3.4 pounds per square foot may be deemed to meet the 65% minimum diversion requirement.
 - Residential high rise (4 stories or more) with a combined weight of new construction disposal less than 2 pounds per square foot may be deemed to meet the 65% minimum diversion requirement.

RECYCLING BY OCCUPANTS (SPACE FOR RECYCLING)

Newly constructed non-residential buildings, certain non-residential additions and multi-family housing with ≥ 5 units should 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 minimum) paper, corrugated cardboard, glass, plastics, organic waste and metals. (4.410.2, 5.410.1)

UNIVERSAL WASTE (NON-RESIDENTIAL PROJECTS)

Universal waste (as defined in CALGreen Section 202) including batteries, electronic devices, mercury-containing equipment, lamps, cathode ray tubes, cathode ray tube glass, aerosol cans from non-residential addition and alteration projects shall require verification that the materials are disposed of properly and diverted from landfills. A list of prohibited universal waste materials shall be included in the construction documents. This is required for non-residential projects subject to the requirements of the California Green Buildings Standards Code (additions of 1,000 square feet or greater and/or building alterations with a permit valuation of \$200,000 or more (CALGreen Sections 301.3 and 5.408.2)

WHAT ARE CONSTRUCTION AND DEMOLITION MATERIALS?

Materials	Components
Wood	Lumber, plywood, scraps, laminates (no pressure-treated wood)
Drywall	Sheetrock, gypsum, plaster
Metals	Pipes, rebar, flashing, steel, aluminum, copper, brass, stainless steel
Plastics	Vinyl siding, doors, windows, floor tiles, pipes
Roofing	Asphalt & wood shingles, slate, tile, roofing felt
Rubble	Asphalt, concrete, cinder block
Brick	Bricks and decorative blocks
Glass	Windows, mirrors, lights
Miscellaneous	Carpeting, fixtures, insulation, ceramic tile

COMPLIANCE

Diversion of debris to a recycling facility does not require an additional step by the contractor or homeowner/builder. The difference is where the debris is hauled – to a recycling facility instead of a landfill.

The same methods of collection or containment that are used for waste disposal can be used for recycling. Typically, a bin from a waste hauling company is rented to contain and transport the debris from the job site. Many of the waste haulers licensed to do business in the City already recycle the construction and demolition debris they transport because they find it a savings to do so. Using one of the waste haulers that already recycles debris is an acceptable method of meeting the requirements of the California Green Building Standards Code.

Sorting the waste into different types of materials is not required or necessary to recycle. The debris can be taken to Material Recovery Facilities (MRFs) that accept and sort co-mingled debris. By pre-sorting the debris, however, the contractor or homeowner could get money back from the recycling facility for certain materials.

ESTIMATION OF DEBRIS TONNAGE

This chart below illustrates the typical amount of construction debris created in pounds per square foot for the most common types of residential and non-residential projects.

ESTIMATED DEBRIS GENERATION (pounds per square foot)

Reroofs

- Shingles Only 2.5 lbs/sf
- Shingles & Sheathing 5.0 lbs/sf

Residential Construction

- New 4.5 lbs/sf
- Demolition 115.0 lbs/sf
- Renovation 24.0 lbs/sf

Non-Residential Construction

- New 4.0 lbs/sf
- Demolition 155.0 lbs/sf
- Renovation Medical Office 3.0 lbs/sf
- Renovation Tenant Improvement 5.0 lbs/sf
- Renovation Retail Space 10.0 lbs/sf

CONSTRUCTION AND DEMOLITION MATERIALS CONVERSION WORKSHEET

Use this worksheet to convert from common construction units to TONS. This worksheet can be used to complete a Waste Management Plan (WMP) or Recycling Summary Report (RSR), but it does not have to be completed or submitted. WMPs and RSRs should be submitted with all materials listed in TONS.

Step 1. Calculate scrap or waste quantity for each material in typical units (square feet, board feet, or cubic yards). Calculate from materials take offs and waste factors. Enter into Column 1.

Step 2. Multiply by the conversion factor in Column II and input answer in Column III.

Step 3. Transfer the TONS listed in Column III to the Waste Management Plan (WMP) or Recycling Summary Report (RSR), Column A, (page 5) and follow the directions on those forms.

Material Category	Column I		Column II	Column III
	Volume	Unit	Tons/Unit	Tons
Asphalt/Concrete				
Asphalt (broken)		CY	0.7	=
Concrete (broken)		CY	0.9	=
Concrete (solid slab)		CY	1.3	=
Brick/Masonry/Tile				
Brick (broken)		CY	0.7	=
Brick (whole, palletized)		CY	1.512	=
Masonry block (broken)		CY	0.6	=
Tile		SF	.00175	=
Building Materials (doors, fixtures, windows, plate glass, cabinets)		CY	.15	=
Cardboard		CY	.05	=
Carpet				
flat		SF	.0005	=
loose		CY	.3	=
Carpet Padding/Foam				
flat		SF		
loose		CY	.00013	=
Ceiling Tiles				
Whole (Palletized)		SF	.0003	=
loose		CY	.0875	=
Drywall, new or used				
1/2"		SF	.0008	=
5/8"		SF	.00105	=
mixed		CY	.25	=
Scrap Metal		CY	.453	=
Wood & Pallets (no pressure-treated lumber)				
clean, unpainted		BD FT	.00138	=
loose		CY	.15	=
Non-Recyclable Debris		CY	.175	=
Recyclable Mixed Debris		CY	.175	=
CY – Cubic Yards, SQ FT = Square Feet, BD FT = Board Feet				

Be prepared to provide weight receipts or other verifiable documents.

**WASTE MANAGEMENT PLAN (WMP)/RECYCLING SUMMARY REPORT (RSR)
PROJECT DIVERSION ACHIEVED**

Verifiable Project Diversion-Waste Reduction and Recycling Plan (Salvage, Reuse or Recycle): Fill out the following table with estimated tonnage for each material that will be generated (A = B + C). Original tags documenting this diversion are required. These tags will NOT be returned. If conversion factors are needed to convert weights, visit <http://www.calrecycle.ca.gov/>

Material Type	A. Estimated Total Debris Quantity (tons)	B. Estimated Salvage, Reuse, or Recycle (tons)	C. Estimated Disposal (Trash) (tons)	Hauler	Certified Recycling Facility or Disposal Destination
Asphalt and Concrete					
Brick/Masonry/Tile					
Cabinets, *Doors, Fixtures, Windows (Circle applicable)					
Cardboard					
Carpet/Padding/Foam					
Ceiling Tile (acoustic)					
Dirt					
Drywall					
Landscape Debris					
Mixed C & D Debris					
Mixed Inerts					
Roofing Materials					
Scrap Metal					
Stucco					
Universal Waste					
Unpainted Wood & Pallets					
Garbage/Trash					
Other					
TOTAL	Total A:	Total B:			

Determine the Project's Overall Recycling Rate (Percentage): $[Total\ B / Total\ A] \times 100 = \underline{\hspace{2cm}}\%$

Example:

TOTAL	20,000	13,400	6,000		
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OVERALL RECYCLING RATE: $13,400/20,000 = .67 \times 100 = 67\%$

Project Notes (if needed):

Additional Project Notes (if needed):