



CONSTRUCTION, RENOVATION, & DEMOLITION TOOLKIT

For Contractors, Builders, and Do-It-Yourself-ers in the TNRD



THOMPSON-NICOLA
REGIONAL DISTRICT

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Why Does Proper Disposal of Construction Waste Matter?

You can help lead the way in building a more sustainable Region! The 2018 TNRD Regional Solid Waste Management Plan lays out a 10-year strategy to reduce waste in the region, with a key focus on reducing waste from Construction and Demolition (C&D) activities.

The C&D Toolkit is here to help, giving you practical guidance on:

- Waste diversion strategies.
- Local disposal standards.
- Available recycling and salvage services.

Measuring Up Construction's Environmental Impact:

- In 2023, 23% of landfilled waste in Kamloops and the TNRD came from C&D activities.
- Construction uses 40% of the world's raw materials¹ and produces 37% of global greenhouse gas emissions.²
- In Canada, C&D activities generate one-third of all solid waste. That's over 4 million tonnes annually.³

Local Opportunity:

- The C&D sector employs 9.6% of the workforce in the TNRD.⁴
- Educating this sector helps shift the view of C&D materials from waste to valuable resources and strengthen the circular economy.

By responsibly managing your C&D waste you can save money, protect the environment, and extend the life of valuable building materials!

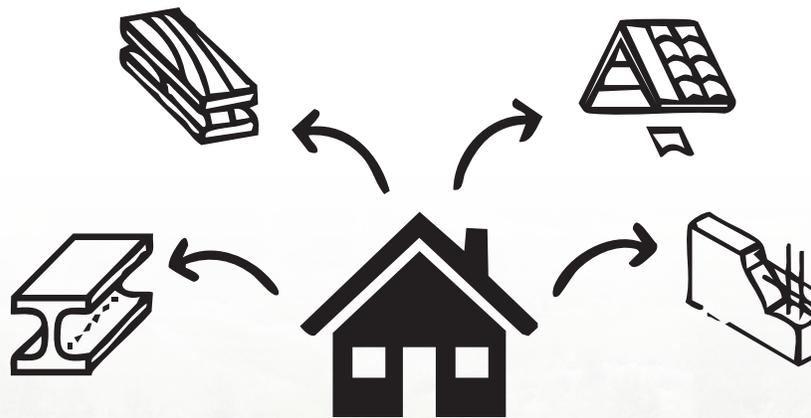


1. Yeheyis, Muluken et al., "An overview of construction and demolition waste management in Canada: a lifecycle analysis approach to sustainability," *Clean Technologies and Environmental Policy* 15, (2013): 81-91, <https://tinyurl.com/y4bythtr>
2. United Nations Environmental Programme, *Building Materials and the Climate: Constructing a New Future* (Paris: United Nations Environmental Programme, 2023), <https://tinyurl.com/m7jkztfw>
3. Delphi Group, *Circular Economy & the Built Environmental Sector in Canada*, (Ottawa: Delphi Group, 2021), <https://tinyurl.com/5n854zpb>
4. "Census Profile: 2021 Census of Population," Statistics Canada, last modified August 2, 2024, <https://tinyurl.com/5aej7d39>

Sorting Saves!

Whether you're building, renovating, or tearing down, managing your construction waste properly has big benefits:

- **Save money** - You pay less when loads are sorted.
- **Extend landfill life** - Less waste going to landfill helps keep it open longer, costing taxpayers less money on infrastructure needs.
- **Protect the environment** - Recycling materials means fewer natural resources are taken from our valuable natural spaces where we live and explore.
- **Give materials a second life** - Many items can be recycled or reused instead of thrown away. They're still valuable resources!



Example: How Sorting Saves Money - Demolition of a 2,000 sq. ft house

Cost **Before** Sorting:

100.7 tonnes of mixed C&D waste (\$250/t)

Total: \$25,175.00

Cost **After** Sorting:

46.32 tonnes of landfill waste (\$250/t) = \$11,580.00

2.01 tonnes of Asphalt Shingles (\$100/t) = \$201.00

3.02 tonnes of Metal = \$0 (Free or revenue)

24.17 tonnes of Clean Wood (\$100/t) = \$2,417.00

25.17 tonnes of Concrete (\$30/t) = \$755.10

Total: \$14,953.10

You save over \$10,000 and keep 50+ tonnes of waste out of the landfill!

Important Note: Disposal fee estimates are determined by weight-based user fees at TNRD Solid Waste facilities, and are not an exhaustive list of all fees associated with disposal.

Hazardous Building Materials Assessment

When is a Hazardous Building Materials Assessment Required?

An assessment identifies dangerous materials like asbestos, lead, and mould so they can be safely removed and disposed of.

- If you're a contractor, WorkSafeBC requires a hazardous building material assessment before you begin work.
- If you're a Do-It-Yourself-er, you're strongly encouraged to do the same assessment for safety.
- Some projects also require a building or demolition permit - check with your local municipality or regional district building department before you start.

Common Hazardous Materials Found in Homes:

Asbestos can be found in over 3,000 older building materials, including:

- Drywall and joint compound
- Textured or sprayed ceilings
- Insulation (attics, pipes)
- Stucco and cement siding
- Vinyl flooring and linoleum
- Ceiling tiles and cement pipes

Crystalline Silica is present in:

- Concrete, mortar, cement, brick
- Composite construction products
- Masonry and ceramic tiles

Lead is often found in:

- Batteries
- Electrical wiring or cable casings
- Paint and coatings (especially pre-1990)
- Pipes and plumbing
- Stained glass

Mould grows in damp areas, such as:

- Any water-damaged areas
- Around leaky windows, pipes, or roofs
- Bathrooms, kitchens, and basements
- Crawlspace and poorly ventilated attics

Polychlorinated Biphenyls (PCBs) are found in:

- Electrical management equipment
- Old fluorescent light ballasts
- Power transformers and generators

Hazardous Materials That Can Be Recycled:

Abandoned Chemicals: Includes paint, solvents, oils, pesticides, cleaning products, gasoline, and medications.

Mercury: Found in thermostats, fluorescent bulbs, switches, and relays.

Ozone-Depleting Substances: Includes refrigerants from air conditioners, fridges, heat pumps, and other cooling systems.

Disposal Requirements:

- Always dispose of hazardous materials according to the Hazardous Waste Regulation and the Environmental Management Act.
- Visit tnrd.ca/asbestos for disposal requirements at TNRD facilities.
- Household hazardous waste (HHW) from residents can be dropped off free of charge at the HHW Drop-Off Facility in Kamloops, with a completed declaration form. Some restrictions may apply.
- For Commercial Hazardous Waste options, check out the [C&D Diversion & Disposal Directory](#).

Need More Information?

Visit WorkSafeBC.com to learn more about:

- Material-specific safety information for hazards such as asbestos and lead.
- Legal requirements for handling and disposal.
- Hiring qualified professionals for assessments.
- View the provincial **Hazardous Waste Regulation** at: tinyurl.com/HazReg.

5 Simple Steps to Manage Your Waste

Whether at home or on the job site, proactive diversion and disposal planning is key to reducing waste and saving money. By identifying opportunities to reuse or recycle materials early, you can streamline your workflow and cut down on disposal costs.

STEP 1: Identify Waste Types and Volumes

Estimate what materials your project will generate and how much. Think about wood, concrete, shingles, metal, and packaging like cardboard. Consider past projects for reference, use the *Material Estimation Tables*, or try the *Demolition Waste and Rates Calculator* at: tnrd.ca/waste-calculator.

STEP 2: Find Out Where It Can Go

Check out the TNRD *C&D Diversion & Disposal Directory* to learn what materials can be recycled or reused, and where to take them. Still not sure? Contact the TNRD at 250-377-2596 for help.

STEP 3: Choose a Hauling Option

You can:

Self-Haul – Often cheaper for smaller projects

Hire a Hauling Company – More convenient for larger jobs

When choosing a hauler, ask:

- What materials do you accept?
- Do you provide bins for sorted materials?
- Do you offer recycling options?
- Can you provide weigh receipts and invoices?

STEP 4: Make A Waste Management Plan

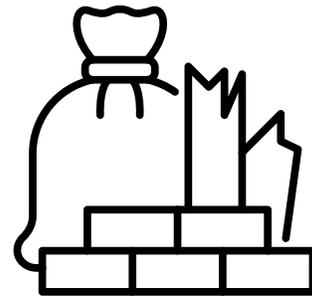
Write down:

- What materials will be handled
- Who is responsible for hauling
- Where materials will go (recycling, landfill, reuse)

A simple written plan helps your team stay organized, reduces mistakes, and saves time and money.

STEP 5: Implement and Track Your Progress

- Put up clear signs to show what goes in each bin
- Keep bins locked when not in use
- Train your crew or helpers on the plan
- Keep invoices to track what's been diverted and disposed
- Regularly inspect bins for contamination and correct any issues



Tip: Plan hauling in phases that align with deconstruction stages - removing one type of divertible material at a time (e.g. asphalt shingles or wood) to maximize source separation.

Important Note: Haulers must screen loads before drop-off, and are responsible for managing materials in compliance with all applicable requirements and bylaws.

Material Estimation Tables

The Material Estimation Tables support *Step 1* of managing your waste. These tables use volume and area measurements to estimate the weight of C&D debris, which helps in estimating disposal costs.

Table 1: Estimating Waste Generation

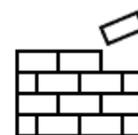
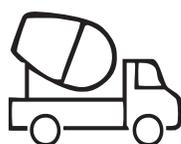
Material Type - Demolition	Quantity	lbs	kg
Wood - floor (without concrete topping)	1 sq ft	10	4.5
Wood - floor (with concrete topping)	1 sq ft	20	9
Wood - floor (exterior)	1 lin ft	25	11.4
Wood - floor (interior)	1 lin ft	20	9
Wood - roof	1 sq ft	5	2.2
Concrete slab (4" thick)	1 sq ft	50	22.7
Asphalt	1 sq ft	50	22.7
Brick/masonry	1 sq ft	50	22.7
Spread footing (20" wide)	1 lin ft	265	120.5

Table 2: Volume to Weight Conversion

Mixed C&D	Quantity	lbs	kg
Mixed C&D (structural)	1 cu yd	500	227.3
Mixed inerts (concrete, brick,dirt, asphalt)	1 cu yd	2000	909.1
Separated inerts	1 cu yd	2000	909.1
Wood	1 cu yd	375	170.5
Metals	1 cu yd	906	411.8
Roofing Materials			
Asphalt shingles/Composition	1 cu yd	419	190.5
Asphalt shingles/Composition	1 sq ft	3	1.4
Asphalt Tar Roofing	1 cu yd	2919	1326.8
Wood Shake/Shingle Roofing	1 cu yd	435	197.7
Wood Shake/Shingle Roofing	1 sq ft	2	0.9
Tiles (concrete roofing)	1 cu yd	10	0.9
Tiles (concrete roofing)	1 sq ft	2900	1318.2
Yard Waste			
Green waste (<i>shrubs, turf, etc.</i>)	1 cu yd	500	227.3
Yard trimmings	1 cu yd	108	49.1

Conversion Helper:

2,205 lbs = 1 tonne
1,000 kg = 1 tonne



Ready to Get Started?



C&D Diversion & Disposal Directory

The [C&D Diversion & Disposal Directory](#) is your go-to resource to support **Step 2** of managing your waste. It connects you with local facilities that can help you divert, salvage, or properly dispose of construction and demolition materials - whether you're a contractor or a Do-It-Yourself-er.

Before you drop anything off, be sure to contact the facility to confirm they can accept your materials. Services and rates can vary, so it's always best to check ahead.

Have questions about materials or this directory?

If you're unsure how to classify materials, or have general questions about the C&D Directory, contact TNRD Solid Waste and Recycling at **250-377-2596** or recycleright@tnrd.ca.

Scan the QR code to
view the C&D Waste
Diversion & Disposal Directory!



Ready to make your own Waste Management Plan?

Access C&D Diversion Planning Forms
on the TNRD website at:

tnrd.ca/construction-waste

or scan the QR code to get started.

Responsible Building Reuse

Deconstruction

Deconstruction is the careful dismantling of buildings to recover materials for reuse or recycling - unlike demolition, which sends most waste to landfills. Some studies show that deconstruction can divert up to 95% of C&D waste from landfills⁵, supporting sustainability and the circular economy. It's especially effective for older, structurally-sound homes built before 1950, which often contain high-quality, salvageable materials.

5. CCME, *Guide for Identifying, Evaluating, and selecting policies for influencing construction, renovation, and demolition waste management*, (2019), <https://tinyurl.com/59hctnyz>

Common Salvageable Materials

- Dimensional Lumber & Heavy Timber
- Concrete, Asphalt, Brick, and Aggregate Materials
- Steel Beams & Studs
- Electrical equipment
- Wainscoting
- Appliances
- Siding
- Light Fixtures
- Insulation
- Interior Doors & Frames
- Heating Ducts
- Cabinetry
- Thermostats
- Plumbing Fittings & Faucets

House Moving

Relocating an entire house might sound extreme, but it's a solution that is increasing in popularity. House moving is the process of taking a building from a location and moving it to another. After the move, buildings can have the same purpose or take a new one. This process can help preserve historic architecture, quality building materials, and keep waste out of landfills.



Curious if this is right for you?

A house moving contractor can help you explore this option.

Design for Disassembly

Did you know? Even though buildings might look like they're built to last, most are torn down for reasons that have little to do with their physical structure or condition⁶.

Design for Disassembly (DfD) considers the life cycle of a building's components. This means that projects are built with renovations, repairs, and end-of-life in mind. The goals of DfD seek to simplify the deconstruction process, reduce the time and cost of deconstruction, and allow for the maximum recovery of building components and materials⁷. This results in reduced waste and can provide cost saving benefits for building owners in the future.

Check with your project team to see if DfD is a good for your project!

6. Jennifer O'Connor, *Survey on Actual Service Lives for North American Buildings, Las Vegas: Forintek Canada Corp.*, 2004, <https://tinyurl.com/3mrsfcc5>

7. Hoda Abuzied et al., "A review of advances in design for disassembly with active disassembly applications," *Engineering Science and Technology* 23, no.3 (2020): 618-24, <https://tinyurl.com/3hzrahha>

TNRD Solid Waste Management Facilities – Handling Requirements

Please Note: Contact facilities directly before delivering materials to confirm site receiving capacity. Site restrictions may apply. For information about procedures and handling requirements at private disposal facilities and at City of Kamloops facilities, contact these service providers directly.

Material Type	Handling Instructions
Asbestos-Containing Material	Material confirmed to contain asbestos, or pre-1990 untested material that could potentially contain asbestos must be double bagged in 6mil bags and sealed prior to arrival at a disposal facility. Pre-approval and an approved asbestos declaration form is required before disposal. Site restrictions may apply. For more information, please visit: tnrd.ca/asbestos .
Asphalt Shingles	Roofing material made of asphalt and mineral granules over a base material (i.e., paper, felt, or fibreglass). Must be clean and free of underlayment materials. Nails are permitted.
Burned Material	Any material damaged by fire, heat, electricity, or a caustic agent that has been allowed to entirely cool. All burned material must be approved by TNRD prior to disposal.
Bulky Waste	Items exceeding 2 m ² (70 ft ³) in volume or 3 m (9.8ft) in length, are considered oversized. Call ahead to confirm available capacity. Site restrictions may apply.
Clean Fill – Commercial	Clean inorganic or organic soil with small rocks, concrete, asphalt, or brick that is suitable for landfill cover. Commercial customers must complete the Commercial Clean Fill Application with TCLP test results, a letter of support from an engineer or environmental professional and receive approval from TNRD prior to disposal of the material. Accepted at landfills only.
Clean Fill – Residential	Clean inorganic or organic soil containing small rocks, concrete, asphalt, or brick that is suitable for landfill cover hauled by a resident. Residential Haulers must complete one Residential Clean Fill Application for each load. No pre-approval is required. Accepted at landfills only.
Concrete, Asphalt & Aggregates	Solid composite or aggregate material mainly composed of sand, gravel, and/or crushed stone. Material must be under 3 ft ² . Rebar may protrude up to 6 inches. May also include brick and fibre cement siding.
Creosote Treated Wood	Wood preserved with an anti-microbial pesticide product containing creosote. May include railway ties, telephone poles, and dock pilings. Requires approval from the TNRD prior to disposal, site restrictions apply.
Demolition, Renovation and Construction (DRC) Waste	Waste from a site where structures are totally or partially built or dismantled. Includes, but is not limited to, treated wood, roofing, concrete, asphalt, glass, insulation, flooring, masonry, siding, drywall, and fixed fixtures (e.g. cabinetry, plumbing, or electrical). Many DRC materials can be recycled at a lower cost. Materials from older homes like drywall or painted materials may require a Hazard Assessment prior to removal.

TNRD Solid Waste Management Facilities – Handling Requirements *(Continued)*

Material Type	Handling Instructions
Hazardous Waste	Hazardous Waste means any material defined as such in the Hazardous Waste Regulation (BC Reg. 63/1988) , which includes, but is not limited to: toxins, poisons, corrosives, irritants, strong sensitizers, flammables, and ignitable materials.
Industrial, Commercial & Institutional (IC&I)	Classification of garbage or recycling from office buildings, retail, schools, warehouses, hospitals, prisons, etc. IC&I also includes residential material hauled by private businesses/collectors. Before recycling, all IC&I containers must be rinsed. Paper and cardboard must be clean and sorted separately.
Land Clearing Debris	Material from land clearing activities including stumps, root mats, large branches, and woody debris over 8 inches in diameter. Also includes soil mixed with rocks, vegetation, and woody debris.
Refuse	Mixed residential and IC&I solid waste (excluding DRC Waste) accepted for disposal. Does not include Prohibited Waste. For restrictions, see TNRD Mandatory Recyclables Bylaw 2743.
Scrap Metal	Items made of over 50% metal, such as pipes, window frames, furnaces, duct work, empty tanks, bathtubs. This does not include products that contain Ozone-Depleting Substances (unless certified as having refrigerants professionally removed) and propane tanks, which are accepted at select recycling facilities.
Tanks	Tanks must be clean, empty, and opened in a manner that allows staff to verify that they are fully emptied. For large tanks, please call ahead to confirm available capacity. Site restrictions may apply.
Wood Waste - Clean	Unpainted, untreated lumber that is free of preservatives, heavy coats of paint, glue, wire, fibreglass, asphalt roofing, fasteners, and other non-wood materials. Examples of clean wood include pallets and other dimensional lumber such as 2x4s. Nails and screws are acceptable.
Wood Waste - Contaminated	Treated or painted wood, including pressure-treated wood, melamine, OSB, particle board, and wood with surface coatings or adhesives. Not suitable for diversion, must be disposed of as DRC.
Yard Waste - Commercial	Organic material from yard and garden work or maintenance delivered to a facility by a landscape contractor or business. Includes, but is not limited to grass, lawn and hedge clippings, flowers, weeds, pine needles/cones, leaves, shrubs, and branches less than 8 inches in diameter. Material mixed with soil or branches over 8 inches in diameter is considered Land Clearing Debris.
Yard Waste - Residential	Organic material from yard and garden work or maintenance delivered to a Facility by the resident or owner of the residential property. Includes, but is not limited to grass, lawn and hedge clippings, flowers, weeds, pine needles/cones, leaves, shrubs, and branches less than 8 inches in diameter. Material mixed with soil or branches over 8 inches in diameter is considered Land Clearing Debris.



Waste Diversion & Planning Form



C&D Diversion and Disposal Directory



Demolition Waste and Rates Calculator



Asbestos Declaration & Acknowledgment Form



Commercial Clean Fill Application Form - TNRD



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