

# FIRE-SAFE CONSTRUCTION



TOWN OF  
GRIMSBY



# Common Fire Risks Throughout Construction Operations

## CONSTRUCTION SEQUENCING RISKS

Incomplete fire separations, exposed structures, or temporary openings that allow rapid fire spread.

## HOT WORK ACTIVITIES

Tasks such as welding, cutting, or grinding that generate heat and sparks.

## ELECTRICAL HAZARDS

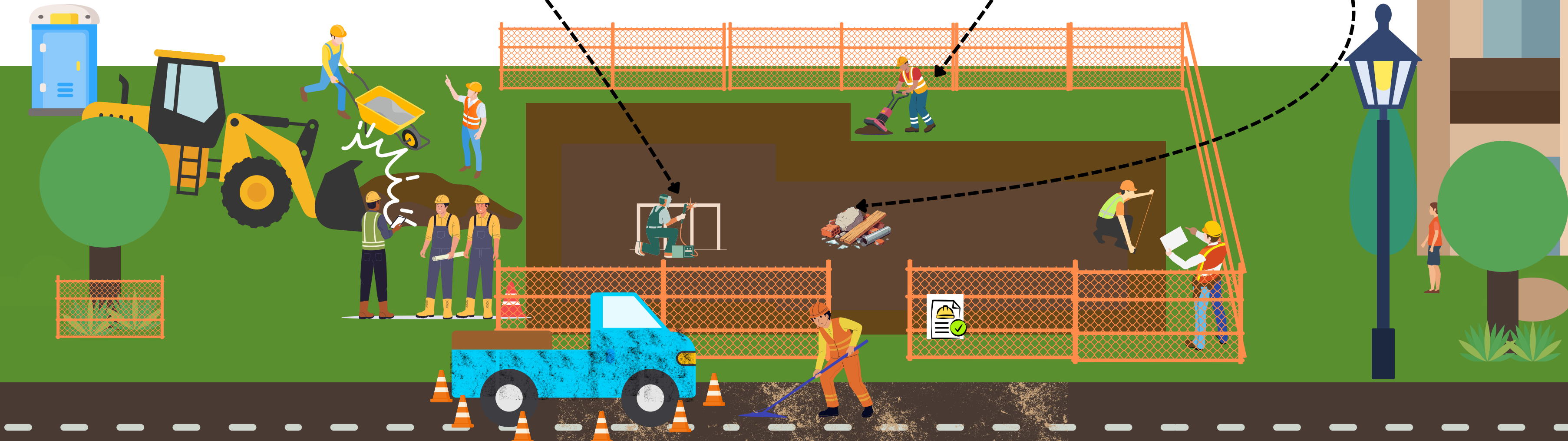
Conditions including overloaded circuits, damaged wiring, or unsafe use of electrical equipment.

## LACK OF TRAINING

Situations where workers lack awareness of fire hazards or safe handling procedures for flammable materials.

## FLAMMABLE MATERIALS

Combustible items such as wood, paint, solvents, fuels, cardboard, and packaging that can ignite when exposed to heat or sparks.



# Key Tips to Reduce Fire Risk During Construction

## ENFORCE NO-SMOKING POLICIES

Limit smoking to designated safe areas away from combustible materials.

## MAINTAIN HOUSEKEEPING

Routinely remove waste and combustible materials and keep all work areas orderly.

## STORE FLAMMABLE MATERIALS PROPERLY

Clearly label and segregate flammable liquids and solvents, using approved storage practices.

## PROVIDE FIRE SAFETY TRAINING

Educate workers on fire risks, prevention methods, and the correct use of firefighting equipment.

## ENSURE ACCESSIBLE FIREFIGHTING EQUIPMENT

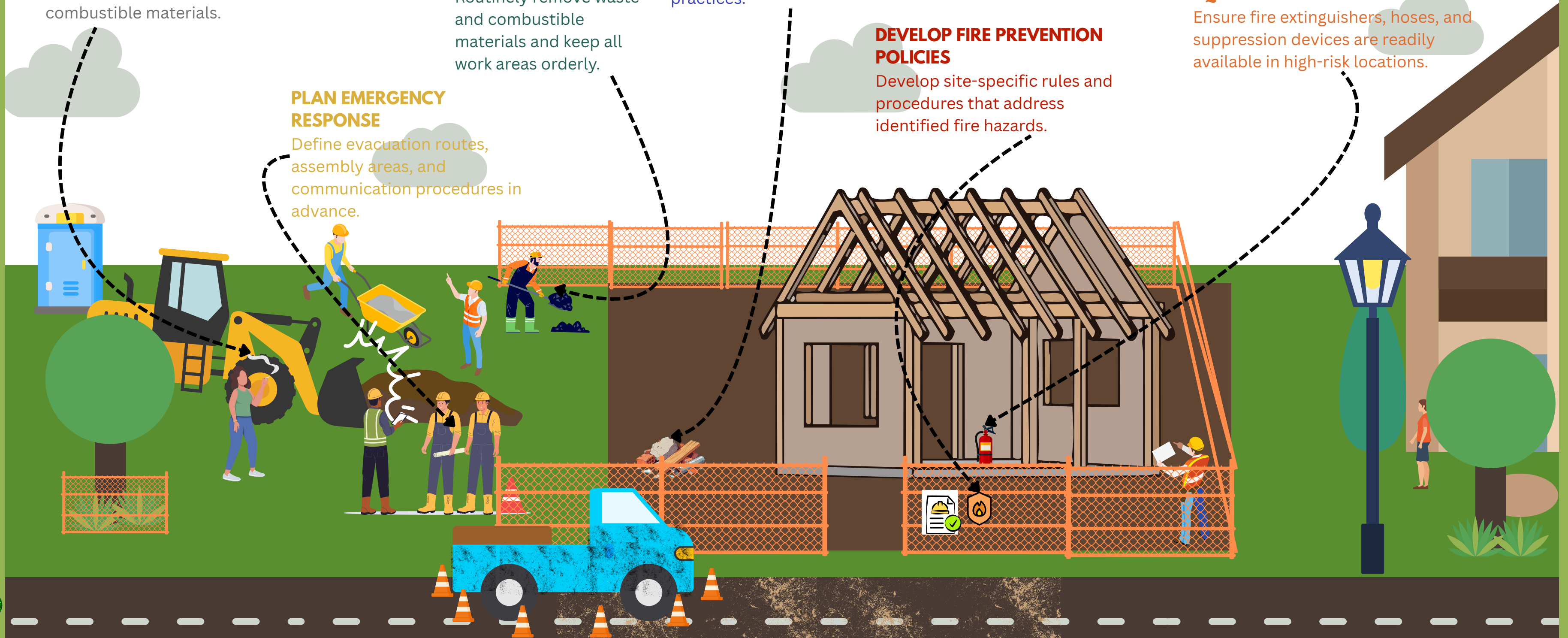
Ensure fire extinguishers, hoses, and suppression devices are readily available in high-risk locations.

## PLAN EMERGENCY RESPONSE

Define evacuation routes, assembly areas, and communication procedures in advance.

## DEVELOP FIRE PREVENTION POLICIES

Develop site-specific rules and procedures that address identified fire hazards.



# Structure Ignition Zone

## IMMEDIATE ZONE

0m to 1.5m

The immediate zone is a non-combustible area that starts at the house and extends 1.5m around the home. Reduce the chance of wind-blown embers igniting your home by starting with these proactive steps.

- 🔥 Use non-combustible materials for building or renovations.
- 🔥 Remove all vegetation until bare soil is exposed, then cover it with gravel, brick, or concrete.
- 🔥 Avoid woody shrubs and trees, or prune and maintain them regularly.

## INTERMEDIATE ZONE

1.5m to 10m

Proper management of the Intermediate Zone helps prevent fire spread and protect your home. Consider the following actions:

- 🔥 Use fire-resistant plants and non-combustible landscaping, avoiding mulch or woody debris.
- 🔥 Keep all combustible items (firewood, furniture, tools, materials) out of this zone.
- 🔥 Move or separate combustible structures to the Extended Zone, or protect them with non-combustible ground cover like gravel.

## EXTENDED ZONE

10m to 30m

In the Extended Zone, fire can't be eliminated, but its intensity can be reduced. If your property includes this area, consider these actions:

- 💧 Space evergreen tree crowns at least 3m apart and remove lower branches up to 2m from the ground.
- 💧 Regularly clear fallen branches, dry grass, and needles to reduce surface fuels.
- 💧 Apply these practices beyond 30m where applicable, coordinating with neighbours and seeking professional guidance when needed.



# Reducing Ignition Zone on Structures

Decks should be designed to minimize debris buildup by providing access for cleaning, using fire-resistant materials, and avoiding storage of combustible items underneath. Using non-combustible railings, furniture, flashing, surfaces, and surrounding ground cover helps protect the deck and home from ember exposure and ignition.

A fire safe yard involves choosing fire-resistant plants, shrubs, grasses, and mulch to reduce wildfire risk. Maintaining a 1.5m non-combustible perimeter around the exterior walls of the home increases its chances of surviving a wildfire.

Simple roof designs reduce areas where debris and embers can collect, while complex roofs require careful maintenance and proper flashing to prevent ignition, especially where combustible siding is used. Even with non-combustible roofs, joints and vents can trap debris and draw in embers, so roof and soffit vents should be screened or ASTM (American Society for Testing and Materials) fire-rated.

Simple exterior wall designs reduce places where embers and debris can collect, and maintaining adequate non-combustible ground-to-siding clearance helps prevent ignition of combustible siding. Using screened vents, multi-pane tempered windows with screens, and well-sealed garage doors reduces the risk of embers and heat entering the building during a wildfire.

Avoid attaching combustible fences or walls directly to your home; instead, use solid, non-combustible fencing or a metal gate set at least 1.5 m from the house, and avoid designs with gaps where embers can lodge and ignite.

Choose a boxed-in or soffit eave design to reduce ember entry, as exposed or open eaves can allow sparks to enter the structure. Install a drip edge along the roof edge above the gutters to protect exposed roof sheathing and fascia from damage and ignition.

