

# Plot Plan, Site Design, and Maintenance Guide

This guide is one of five packets on how to buy publicly owned land and create land based projects in Detroit. Download these resources at [www.DetroitMi.gov/Land](http://www.DetroitMi.gov/Land) or pick up at 2 Woodward Ave.



## Read on if you...

- Need to create a plot plan to purchase land or apply for a permit
- Want to understand current city requirements site design and maintenance

## Inside you will find...

How to draw a **Plot Plan** .....2

**Site Design Guide** with details on **zoning requirements and best practices**.....8

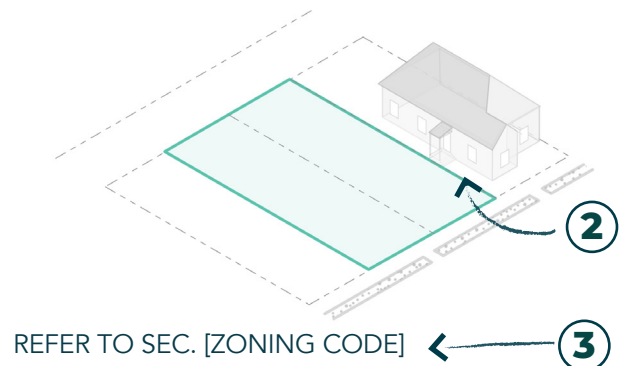
Instructions on ongoing and seasonal **Site Maintenance** .....15

City contact information .....20

## Using the Site Design Guide to draw the Plot Plan

The Site Design Guide on **pages 8-14** will help you understand important design considerations for your project, and will help you draw your Plot Plan to meet City requirements. As you read through, watch out for **1** the title of a requirement or best practice, **2** a graphic that illustrates site design requirements or best practices, and **3** a reference to the city ordinance for more information.

## Sample Requirement ← **1**



## What is a land based project?

A land based project uses land for activities such as urban agriculture, gardening, or beautification, whether for profit or community activation.

# Drawing a Plot Plan

## What is a Plot Plan?

A “Plot Plan” is a simple, one-page drawing that shows the dimensions and configuration of your property. It includes the size and precise location of existing and proposed features and physical changes.

## Why do you need a Plot Plan?

Plot plans help the City understand your project’s impact on the health, safety, and welfare of you and your neighbors. They help City and Land Bank staff understand your site and project and offer you feedback on your specific plans.

## What steps do you need to take?

Use the plot plan checklist and example drawings on **pages 4-7** to draw your own plot plan. When you are done, you must submit your completed plot plan to the Land Bank or Detroit Building Authority (for purchase) or to BSEED (for permitting). If you make changes to your project after you receive a permit, you will also need to notify BSEED with those updates.

## Property boundaries and setbacks

Before you start drawing your plot plan, you'll want to know your property's boundaries and where you can place different features on your site. Your property is composed of one or more parcels and is defined by its property boundaries. Within these boundaries, your use of the land may also be impacted by setbacks, existing buildings, and your property's relationship to city-owned streets, alleys or utility areas.

### How to identify property lines

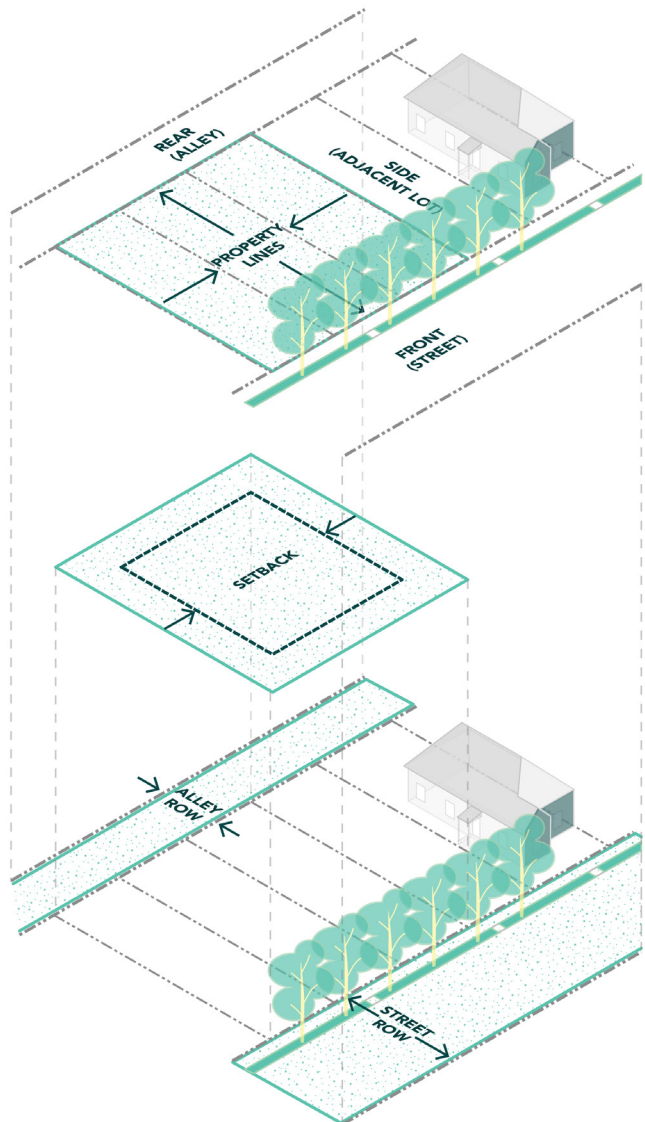
General information about your property lines are available on the Detroit parcel viewer, [www.cityofdetroit.github.io/parcel-viewer](http://www.cityofdetroit.github.io/parcel-viewer) including its width, length and area.

### What is a setback?

A setback defines the required distance between your property boundaries and the buildings or features you plan to place on your property. For example, in the drawing at right, the inner "setback" rectangle defines the area of your property that can include structures or features like compost. The Site Design Guide discusses some important things to know about setbacks for features like crops and orchards ([page 10](#)) or compost ([page 14](#)).

### What is a right of way?

A right of way (ROW) is a public corridor, adjacent to several properties that allows the movement of people and infrastructure. It can include public sidewalks, roads and alleys or utility easements.



# Here is what to include on your Plot Plan:

## Write down:

- Name and address of the property owner, and address of the property (if different from the owner's address)

## Draw your site:

- Property lines
- Any sidewalks along property edge
- Required setbacks for plantings, structures, and other items from the property line\*

## Draw all of the following existing and proposed features on your plan, if they apply to your current site or proposed changes.

- Hoophouses, buildings, sheds, garages
- Fences or other features that define the project edge
- Driveways or other vehicle access locations
- Trees (use a big circle for a big tree and a small circle for a small tree)
- Signage along the front of the property
- Compost and/or brush storage, and trash storage at the rear of the site
- Water access
- Rain catchment systems or rain gardens
- Temporary restrooms and screening

\*For more information, see setback table at [www.bit.ly/21f0N6M](http://www.bit.ly/21f0N6M)

- Note that any building over 120 sq ft will require a building permit.

elements

- Areas dedicated to seed banking, permaculture techniques, pollinator habitat, row crops, raised beds, planting areas, flower beds, and paths; for more information please refer to Zoning Code Section 50-12-397 for more information

**Note:** Plot plans should match what you submit in your purchase or permit applications. Any future changes will require notification to BSEED.

## Label all existing and/or proposed:

- Streets and alleys next to the property
- Dimensions of your property (length of the property, in feet, along each side)
- Dimensions of all structures (Include the dimensions of each structure by noting its length in feet along each side\*\*)
- Fences -- write what type of fence and how tall it is (for example, "wooden fence, 4' tall")
- Tool storage and chemical/fuel storage areas -- label where you will store these safely, or write down a short description on where you will store these
- Utility poles and fire hydrants

## And don't forget:

**If you're excavating contact Miss Dig by calling 811 or by visiting [www.MissDig811.org](http://www.MissDig811.org)**

# Plot Plan Example #1

## “Beautification Project”

1234 Fifth Street  
Detroit, MI 01234

### Draw your site:

- Property lines
- Sidewalks along edge of property
- Required setbacks for plantings, structures, and other items from the property line

### Draw all existing and proposed:

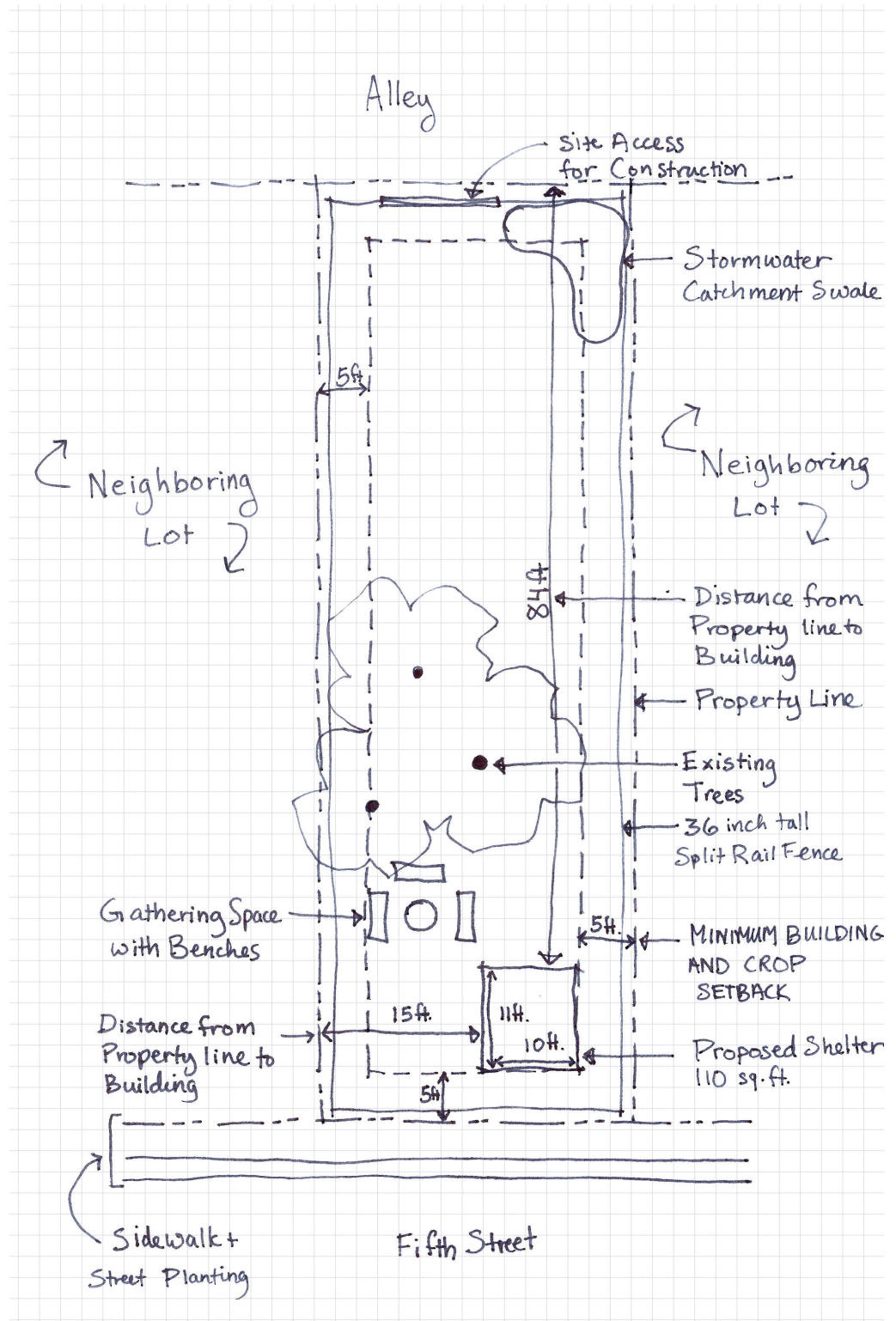
- Structures
- Fences or other features
- Driveways or other vehicle access locations
- Water access
- Rain catchment systems or rain gardens
- Trees
- Signage
- Compost, brush and/or trash storage
- Temporary restrooms and screening
- Benches and sculptures or other art elements
- Paths

### Draw in the areas where you will have:

- Row crops/planting areas
- Raised beds

### Label all existing and/or proposed:

- Seed banking, permaculture techniques and pollinator habitat
- Streets and alleys next to the property
- Fences with heights and materials
- Dimensions and area of structures in feet
- Tool storage and chemical/fuel storage needs
- Utility poles and fire hydrants



## Plot Plan Example #2

“Hoophouse Garden, LLC”

1234 Fifth Street  
Detroit, MI 01234

### Draw your site:

- Property lines
- Sidewalks along edge of property
- Required setbacks for plantings, structures, and other items from the property line

### Draw all existing and proposed:

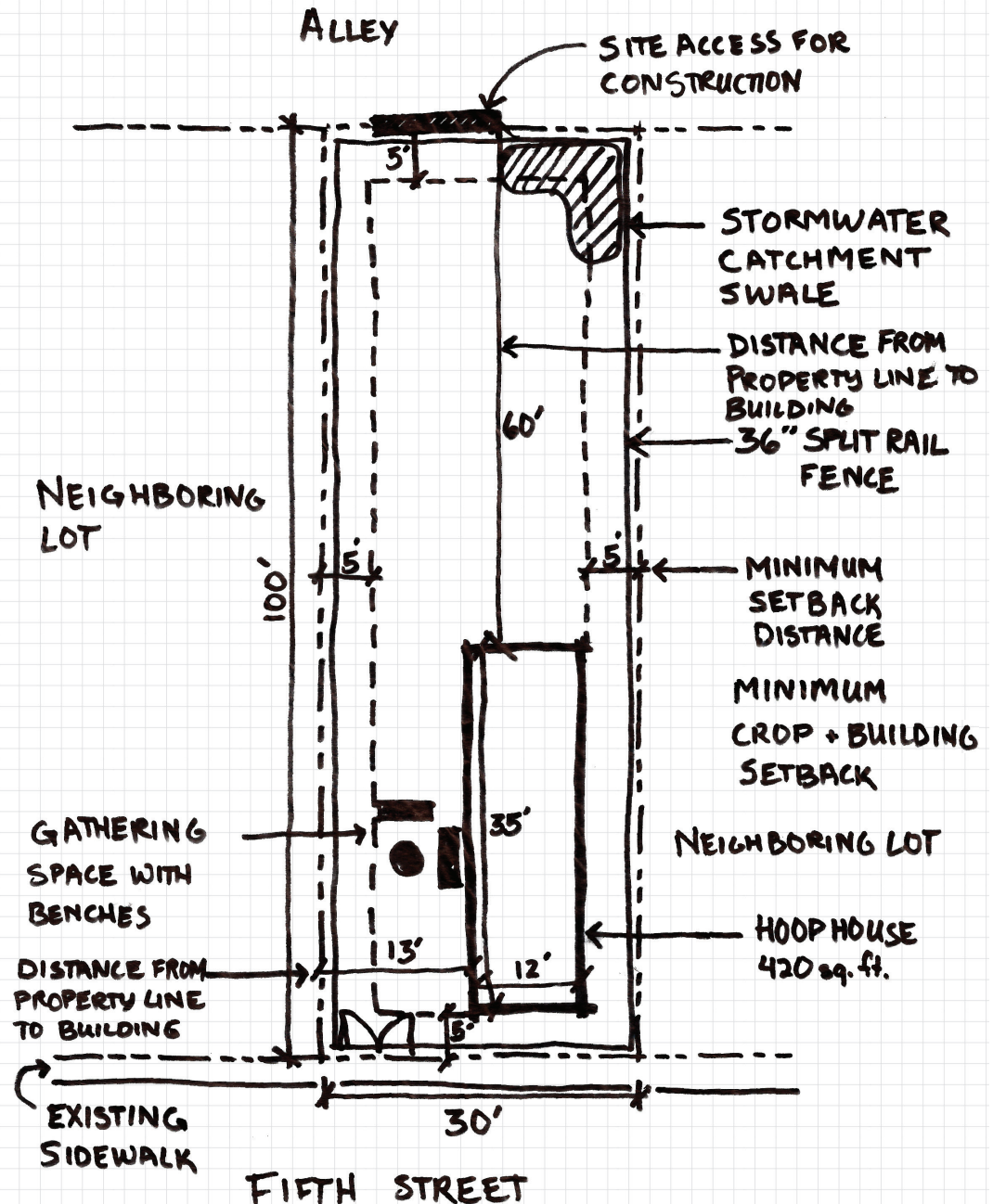
- Structures
- Fences or other features
- Driveways or other vehicle access locations
- Water access
- Rain catchment systems or rain gardens
- Trees
- Signage
- Compost, brush and/or trash storage
- Temporary restrooms and screening
- Benches and sculptures or other art elements
- Paths

### Draw in the areas where you will have:

- Row crops/planting areas
- Raised beds

### Label all existing and/or proposed:

- Seed banking, permaculture techniques and pollinator habitat
- Streets and alleys next to the property
- Fences with heights and materials
- Dimensions and area of structures in feet
- Tool storage and chemical/fuel storage needs
- Utility poles and fire hydrants



# Plot Plan Example #3

**“Quilted Farm, LLC”**  
**5678 Ninth Street**  
**Detroit, MI 01234**

## Draw your site:

- Property lines
- Sidewalks along edge of property
- Required setbacks for plantings, structures, and other items from the property line

## Draw all existing and proposed:

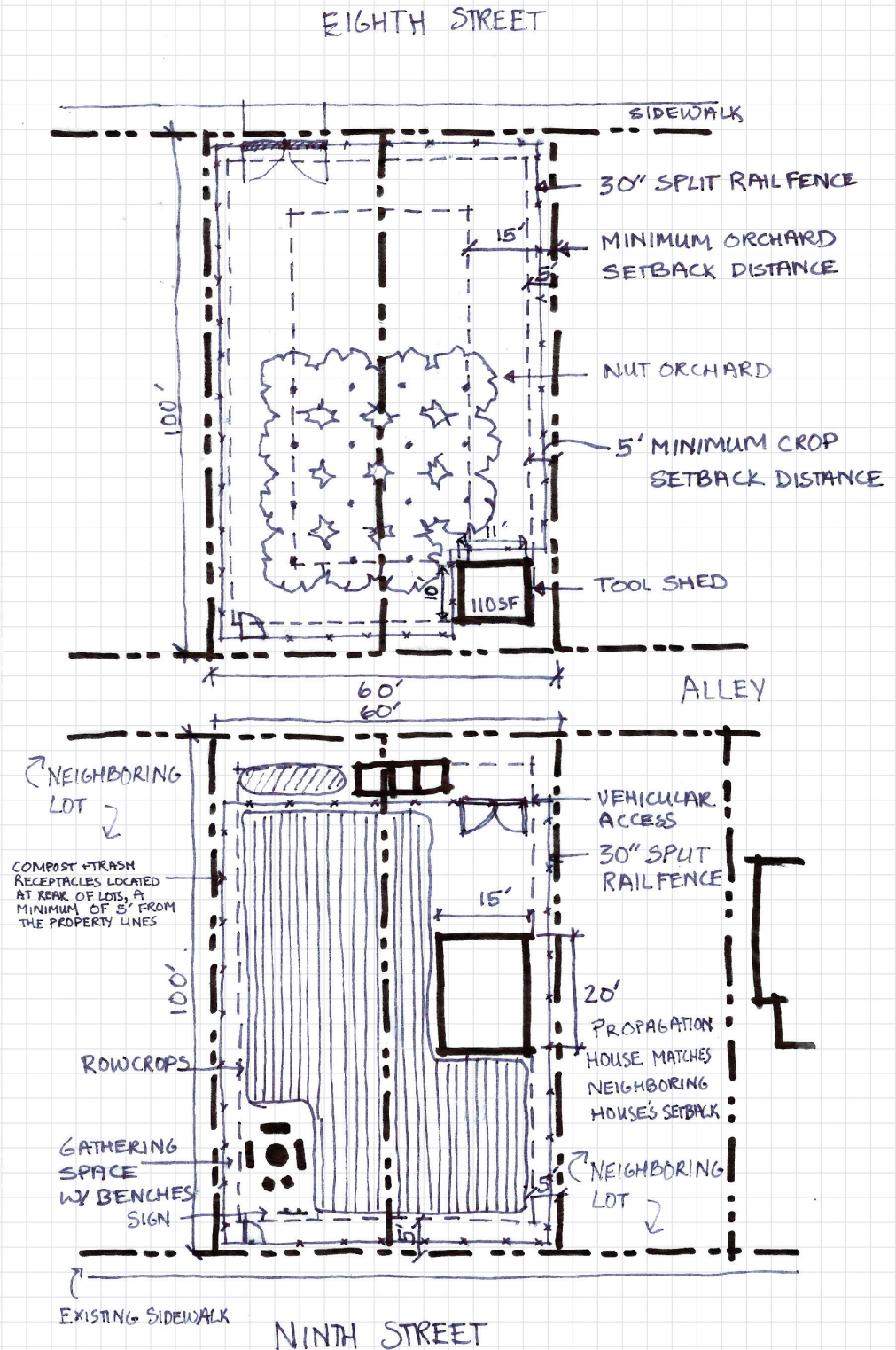
- Structures
- Fences or other features
- Driveways or other vehicle access locations
- Water access
- Rain catchment systems or rain gardens
- Trees
- Signage
- Compost, brush and/or trash storage
- Temporary restrooms and screening
- Benches and sculptures or other art elements
- Paths

## Draw in the areas where you will have:

- Row crops/planting areas
- Raised beds

## Label all existing and/or proposed:

- Seed banking, permaculture techniques and pollinator habitat
- Streets and alleys next to the property
- Fences with heights and materials
- Dimensions and area of structures in feet
- Tool storage and chemical/fuel storage needs
- Utility poles and fire hydrants



# Site Design Guide

## Find information on:

Animals and plants.....	8
Project edge design.....	9
Signs.....	10
Setbacks for orchards, tree farms, and crops.....	10
Structures.....	11
Hoophouses.....	11
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Structure heights.....	13
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## Updates to Zoning Regarding Animal Husbandry

Farm animals are not currently allowed in Detroit.

The City is currently reviewing the existing municipal code to eliminate the prohibition of farm animals within city limits. This review is ongoing and as updates to the code are made, the City will share those changes with the public.

## Plants

Plants or trees identified by the City as potentially poisonous or harmful are not allowed. Oats, wheat and rye are prohibited, except when used as a winter cover crop and not grown to full maturity.

The following tree species are prohibited, except with special review and approval:

Silver maple / *Acer saccharinum*  
 Box Elder / *Acer negundo*  
 Honey locust (thorned) / *Gleditsia t.* (thorned)  
 Ginkgo (female) / *Ginkgo* (female)  
 Mulberry / *Morus* species  
 Cottonwood; Aspen; Poplar / *Populus* species  
 Black locust / *Robinia* species  
 Willow / *Salix* species  
 American elm / *Ulmus americana*  
 Siberian Elm / *Ulmus pumila*  
 Slipper elm (Red elm) / *Ulmus rubra*  
 Catalpa / *Catalpa* species

REFER TO SEC. 50-12-397, SEC. 50-14-324 (DPR)

## Best Practice: Other Plant Regulations and Resources

Wayne County and the State of Michigan maintain their own prohibited species lists. Individuals or organizations interested in native plants can contact the Michigan Native Plant Producer Association ([www.mnppa.org](http://www.mnppa.org)), the Michigan Wildflower Association ([www.wildflowersmich.org](http://www.wildflowersmich.org)), or the Ladybird Johnson Wildflower Center ([www.wildflower.org](http://www.wildflower.org) or 512-232-0100).



## Best Practice: Project Edge

Your property's edge impacts the public experience of your street. For example, a tall fence directly along the sidewalk can create an imposing experience.

Your project can highlight ways that land based projects can have clear edges and contribute to existing neighborhood character. Here are some important best practices:

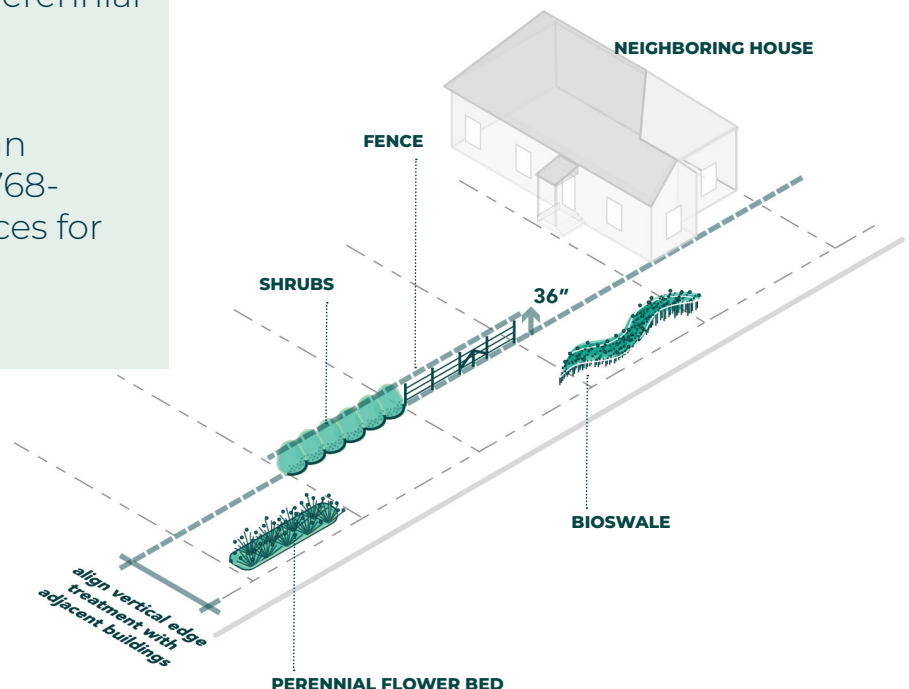
- Limit fences or hedges along sidewalks to a maximum of 36 inches in height.
- Along the street, align fences with property boundaries.
- Create a beautiful border by mowing and maintaining your property edge, or by lining the property with a rain garden, bioswale, native plants or perennial flower beds.
- Keep Growing Detroit (313-656-4769) and the American Horticultural Society (703-768-5700) are also great resources for planting border designs.

- To the extent possible, arrange edge materials intentionally in straight lines that appear laid out and orderly.

Avoid materials that can be perceived as unkempt or a threat to public health, such as:

- Untreated lumber
- Tires
- Barbed Wire
- Unplanted/bare mounds of soil
- Piled construction rubble
- Broken or unmaintained materials

REFER TO ORDINANCE SEC. 50-14-367 FOR PROVISIONS THAT DESCRIBE FENCE AND SCREEN HEIGHTS, MATERIALS AND CONSTRUCTION METHODS.



## Best Practice: Signs

Clear, visible signs inform neighbors or visitors about your land based project's use and name. Signage should be located near the front property line or next to the main entrance. The sign can explain if visitors are welcome, during which hours, and who to contact.

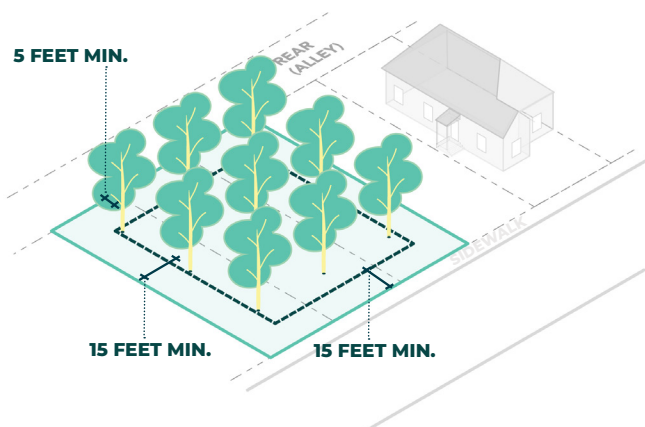
Have fun with your sign! Your sign can express your project's unique character, and can be hand-made, or show off the creative talents of a local artist.

REFER TO ORDINANCE SEC. 50-6-1 FOR PROVISIONS THAT DESCRIBE SIGNS (BSEED)

## Orchard and Tree Farm Setbacks

Set back all tree farms/orchards at least 15 feet (measured from the tree trunk to lot line) from developed (improved) adjacent lots and 5 feet from a vacant property. Tree canopy is also subject to encroachment limits.

REFER TO SEC. 50-12-400. (BSEED)



## Crop and Building Setbacks

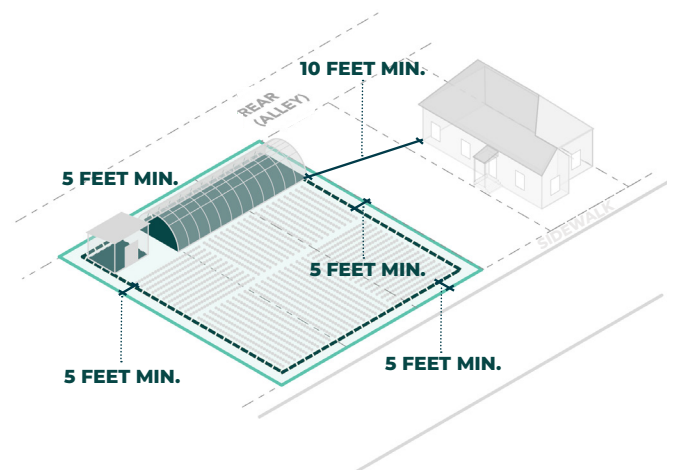
Crops must be a minimum of 5 feet from the property line on all sides.

The area between the property line and setback must be covered with ground plants that are not meant for eating. Example ground covers include: sedum, clover, etc. Their purpose is to help prevent erosion, establish property boundaries, and beautify your neighborhood.

Hoophouses, greenhouses and building structures must be setback at least 5 feet from the **rear** property line.

No detached accessory building or structure can be closer than 10 feet to a dwelling or principal building.

REFER TO SEC. 50-12-400. (BSEED)

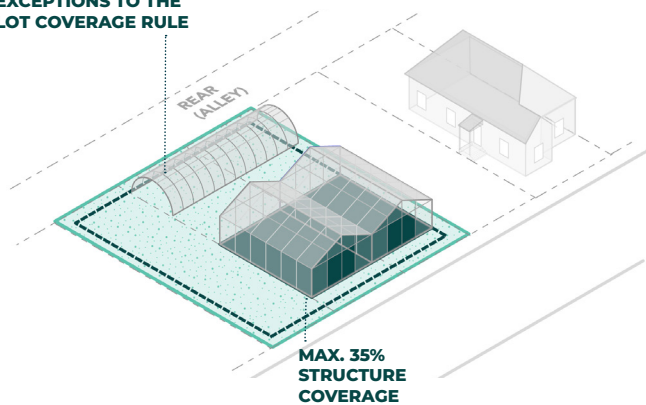


## Lot Coverage for Structures

For the majority of land based projects, the maximum allowable amount of lot covered by principal structures is 35%. In R3, R4, R5, R6 zones, there are no lot coverage maximums.

REFER TO SEC. 50-13-1 TO 50-13-7

**HOOPHOUSES ARE EXCEPTIONS TO THE LOT COVERAGE RULE**



## All About Hoophouses!

Hoophouses can be a principal use (if you just have a hoophouse) or an accessory use to your urban garden or farm.

Even if small enough to not required a building permit, all hoophouses still need to be included in your Plot Plan drawings and your Land Permit applications to BSEED.

You can submit the product information for the hoophouse you have selected with your plot plan to describe dimension and materials.

REFER TO ORDINANCE SEC. 50-12-109 FOR MORE INFORMATION ABOUT HOOPHOUSE ALLOWANCES. (BSEED)

## Allowable Accessory Uses and Structures on Urban Gardens

The following accessory uses and structures are allowed on urban gardens. Buildings over 200 square feet (residential zoning) or 120 square feet (all other zoning) require building permits.

- Hoophouses or high tunnels
- Greenhouses
- Signs
- Benches, bike racks, raised planting beds, compost bins, picnic tables, garden art, rain catchment systems
- Sheds and shade pavilions (including tool and machine storage)
- Garages
- Farm stands for on-site sales

REFER TO SEC. 50-12-522. (BSEED)

## Allowable Accessory Uses and Structures on Urban Farms

The following accessory uses and structures are allowed on urban farms. Buildings over 200 square feet (residential zoning) or 120 square feet (all other zoning) require building permits.

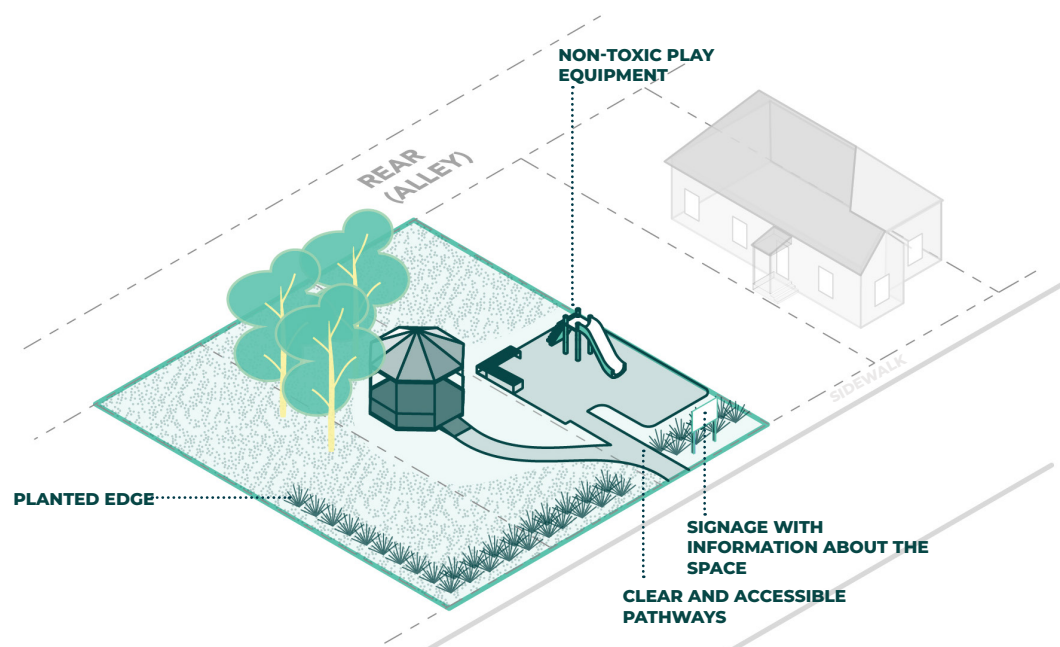
- All allowed accessory structures on Urban Gardens
- Aquaculture
- Aquaponics
- Hydroponics
- Barns and/or other buildings for storage
- Structures for cold storage and processing

REFER TO SEC. 50-12-522/3. (BSEED)

## Best Practice: Community Gathering and Play Space Considerations

Community gathering spaces should be welcoming to people of all ages and abilities. They should be designed with the following considerations in mind:

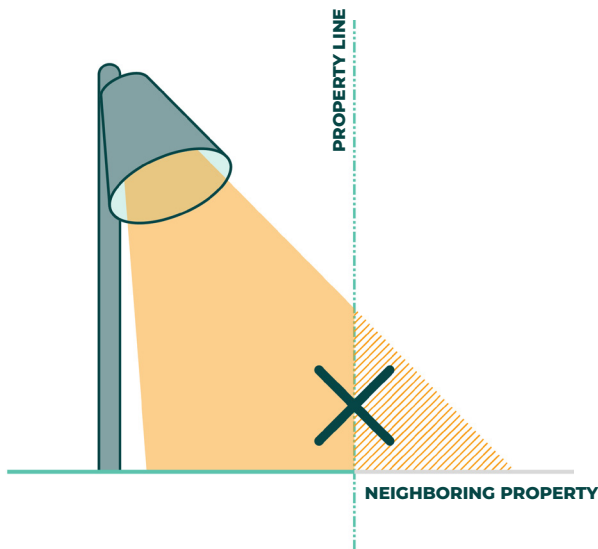
- Design spaces that will be open to the public to be ADA or universally accessible.
- Use signage to share information about your space.
- A property's edge treatment can help communicate whether a space is public or private. For example, a low fence and gate suggests limited access to the property during off-hours while a border of native plantings provides the property with visual definition and identity. Fences also make spaces feel more private, while multiple entries to the property and perennial flowers are more inviting and feel more accessible to the public.
- If the property is intended to be used as a public play space, use only non-toxic paints, materials, and plants.
- Site furniture, play structures, and paving materials should be chosen and located with consideration to maintenance and security.
- Consider adjacencies when selecting a property and identifying the activities and noise levels you expect in order to minimize potential, future neighborhood use conflicts.
- Remember that BSEED review is required for all play equipment or bench installations.



## Lighting

Shield and orient exterior lighting so that all light falls within property boundaries.

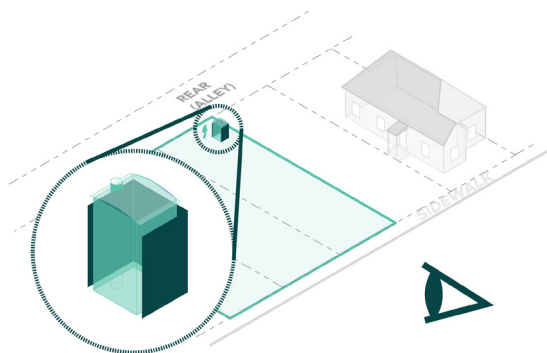
REFER TO SEC. 50-12-401 (BSEED)



## Restroom Screening

Any temporary restroom facilities must be screened on at least 3 sides from public view with walls of sufficient height.

REFER TO SEC. 50-12-408. (BSEED)

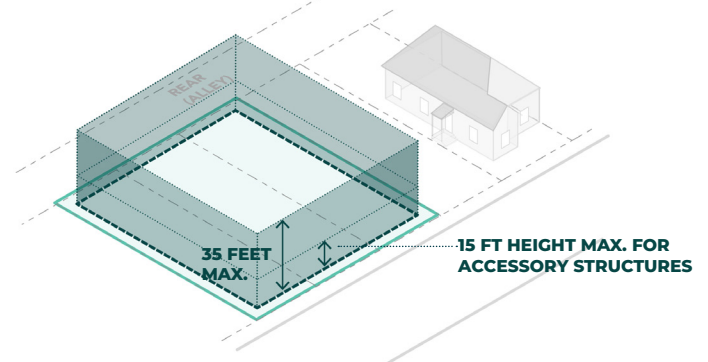


## Structure Heights

Residential and community buildings may not exceed 35 feet in height.

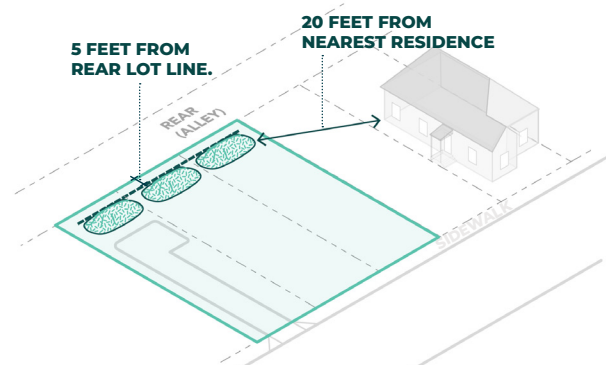
Accessory structures are limited to 15 feet in height.

REFER TO SEC. 50-13-1. (BSEED)



## Compost and Trash Location

Locate compost near and within the 5 foot rear crop setback and keep trash storage to the rear lot line and 20 feet from nearest residential building.



Composting facilities handling over 200 cubic yards of compost are required to follow additional county and state regulations. Refer to Michigan NREPA Part 115 and Wayne County's solid waste ordinance for relevant State and County regulations for large scale compost operations and storage.

REFER TO SEC. 50-12-399, SEC. 50-12-409. (BSEED)

## Best Practice: Compost

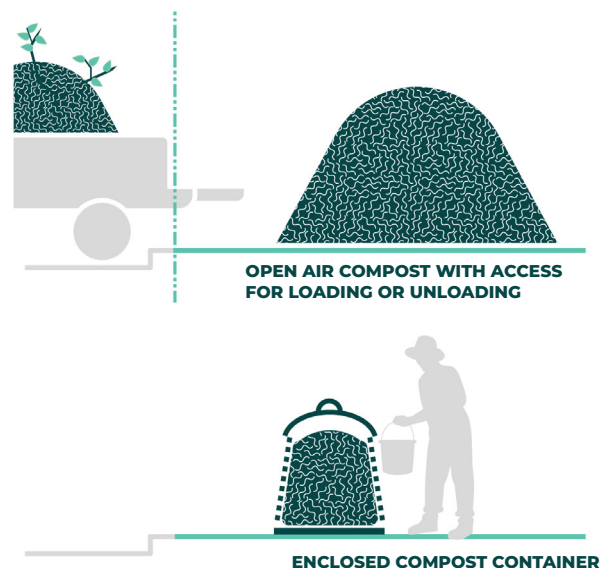
There are several tactics for managing and storing compost on your property.

Both open air compost piles and enclosed containers can be easy to maintain.

If you are composting in the open air, here are three things that BSEED's environmental inspectors suggest:

- Cover food scraps with a "brown" layer of compostable material like leaves or shredded paper.
- Locate compost close to a water source in case it becomes too dry.
- Edge the open pile with chicken wire or edging to show that the compost is intentional.
- Enclosed bins are best suited for small-scale compost operations receiving garden trimmings and kitchen scraps. Keeping compost in a secure container such as a perforated can or compost bin helps make the facility rodent-proof and less likely to be identified a nuisance. If rodents are a known problem in the area, placing a barrier such as a metal screen between the underlying soil and the bottom of the bin can help prevent burrowing animals from accessing food scraps.

- Large scale composting operations benefit from being located along a designated truck route. Alleys are often inaccessible to the commercial vehicles necessary for loading and unloading compost.
- Remember, composting is only for plant food waste. Meat, fat, and bones are prohibited.



# Maintenance Guide

In addition to initial site design decisions, ongoing and seasonal site maintenance is also important. Maintenance requirements and suggested best practices are outlined on the following pages.

Topics that most frequently lead to complaints by the public are identified in the table below and are flagged with  throughout the document.

## Store compost neatly and keep any odor away from neighbors

See **pages 13-14** for more information

- Store toward back of site or store in intentional piles that are not right next to the sidewalk.
- Always store compost at least 20 feet from neighbors' houses or businesses.
- If compost is being delivered, never let it block the sidewalk.

## Prevent rodents and pests

See **page 14** for more information

- Harvest crops when ripe and collect fallen fruit quickly.
- Make sure food waste in compost is covered with a layer of other material, not left on the surface.

## Be clear that natural landscapes are intentional, not just unmowed

See **page 16** for more information

- Provide informational signs about natural landscapes, seed banking, or permaculture.
- Include information about your landscape plans in your Plot Plan or Land Permit Form.
- Let your neighbors know about your plans.

## Store building materials neatly

See **page 12** for more information

- Elevate construction materials such as wood planks, tree stumps, or fence posts off the ground so they do not decay.
- Make neat piles or stacks of building materials.

## Store mulch, woodchips, or other materials neatly

See **page 16** for more information

- Make organized and neat piles.
- Make a clear entrance to the project so these can be easily delivered onto your site rather than on the sidewalk or the street.
- Don't store these next to the sidewalk, store them inside your project work area.

## Rainwater collection and storage

See **page 19** or more information

- Keep soils and other materials from flowing into other properties, sidewalks or streets after rain events.
- When storing rainwater, do not let water stand for long periods of time.

## Defining your project edge

See **page 9** for more information

- Make a straight edge that aligns with property lines.
- Don't use the materials listed on **page 9**.
- Make sure you have a clear entrance to allow for delivery of compost, mulch, or other materials.

## Neat and Orderly

The property must generally be maintained in an orderly and neat condition. Examples of this include arranging compost to deter rodents, organizing building materials neatly in piles off the ground, and picking up trash or debris on your property and surrounding sidewalks.



Call **313-123-4567** to report disorderly conditions on City-owned property!

REFER TO SEC. 50-12-404. (BSEED)

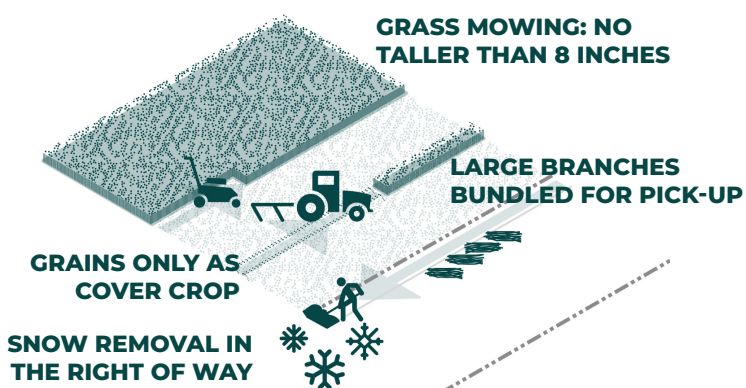
## Keep Tall Grass Mowed

The property must be maintained free of high grass, weeds, or debris. An exception to this rule is purposely cultivated native species which are allowed if identified on site and plot plans. Dead plants need to be removed no later than November 30th of each year. Cover crops, cultivated native species and seed-banking zones are exceptions to City ordinances requiring the mowing of tall grass and removal of dead garden plants if these uses are clearly identified and approved on plot or site plans.



Call **313-123-4567** to report tall grass on City-owned property!

REFER TO SEC. 50-12-404. (BSEED)



## Best Practice: Yard Waste

The City's yard waste collection service can help you get rid of excess plant material if your project is part of a house where you live. These rules apply:

- Yard waste is collected every other week between April 9 and December 14.
- Place waste at the curb no more than 24 hours before 7 a.m. on pick-up days.
- Brush should be trimmed to 4 feet or less in length, and tied in bundles weighing no more than 60 lbs.
- Smaller twigs, branches, leaves, and grass clippings can be placed into bags or containers marked "Yard Waste Only," weighing no more than 60 lbs each. This applies if you use the DPW pay for pickup service.
- To avoid complaints, cover crops, seed-banking, and permaculture zones should be clearly noted on your plot plan and have informational signs on site.

## Machinery & Chemical Storage

Tools, supplies, and machinery must be stored in an enclosed structure or removed from the property daily. Chemicals and fuels must be stored off the ground in a locked structure when unattended.

REFER TO SEC. 50-12-404. (BSEED)

## Snow Removal

Maintain driveways, parking spaces, sidewalks, and walkways located on the property or adjacent rights of way clear of snow and ice. Snow and ice must be removed within 24 hours within the right of way.

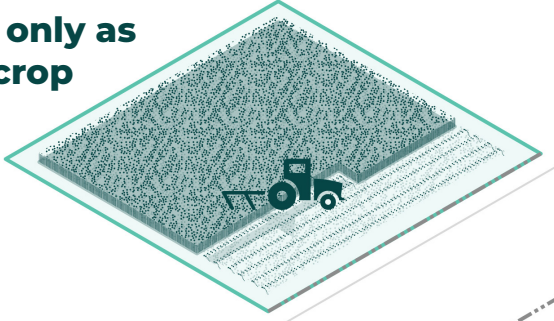
REFER TO SEC. 8-15-103. (TED)



## Neat and orderly through the seasons

### Spring

**Grains only as cover crop**



**Required:**

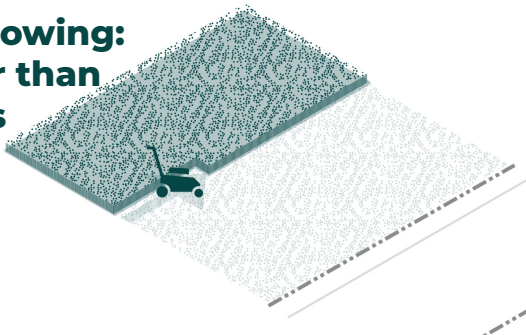
Store machinery and chemicals in enclosed structure or remove from property daily.

**Best Practice:**

Till or mow cover crop before it sets seed.

### Summer

**Grass mowing: no taller than 8 inches**



**Required:**

Keep tall grass mowed to no more than 8”.

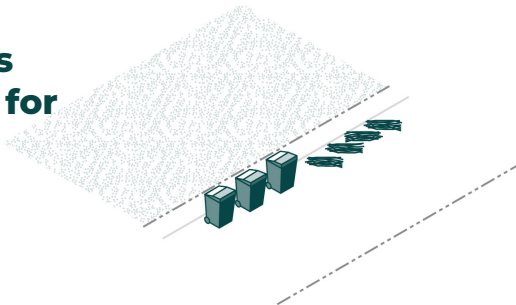
**Best Practice:**

Permaculture zones should be clearly labeled and approved.

Seed banking areas should be clearly labeled.

### Fall

**Large branches bundled for pick-up**



**Required:**

Plant debris and other garden clippings should be removed from the premises by Nov. 30th. There are other guidelines for City green waste.

**Best Practice:**

Sow cover crops.

Garden equipment such as high tunnels, row crop cover, and drip lines should be stored in an enclosed structure for the season.

### Winter

**Snow removal in the right of way**



**Required:**

Snow removal in the ROW adjacent to property is the property owner’s responsibility.

**Best Practice:**

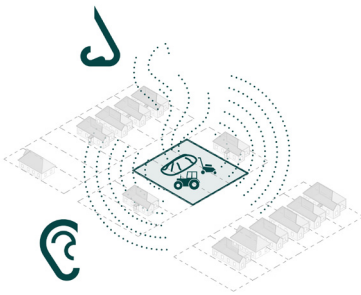
Garden equipment such as high tunnels, row crop cover, and drip lines should be stored in an enclosed structure for the season.

### Nuisances

Agricultural uses must not impact surrounding neighborhoods through excessive noise, smoke, fumes, vibrations, or odors. Motorized equipment can only be operated between 8AM to 8PM.

REFER TO SEC. 50-12-406. (BSEED)

 This is a common source of complaints to the City!

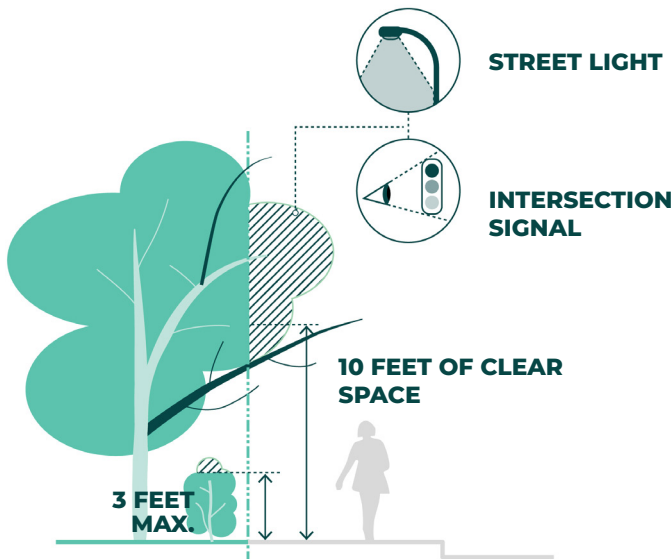


### Encroachment

Plants must not enter neighboring properties or the public right of way and must not obscure or inhibit public infrastructure function.

REFER TO SEC. 50-12-404, SEC. 16-3-10. (TED)


 Call [313-123-4567](tel:313-123-4567) to report tree or shrub encroachment from City-owned property!

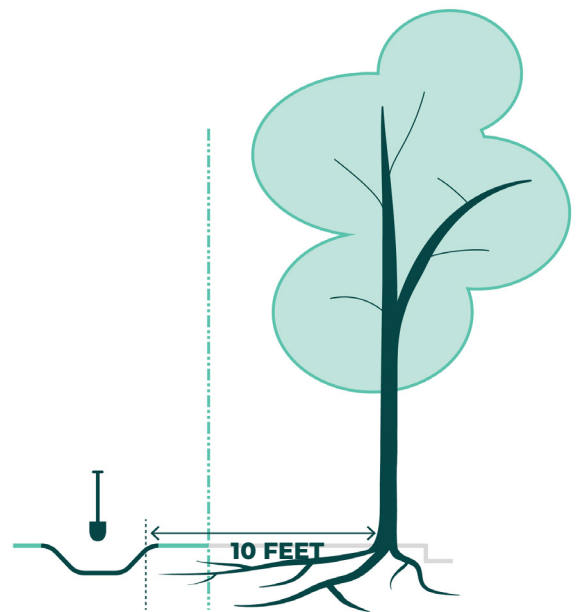


### Digging

If you dig a hole or trench within 10 feet from a city-owned tree you must obtain a permit from the Recreation Department. City-owned trees exist on publicly owned properties including street rights of way.

REFER TO SEC. 16-3-7. (TED)

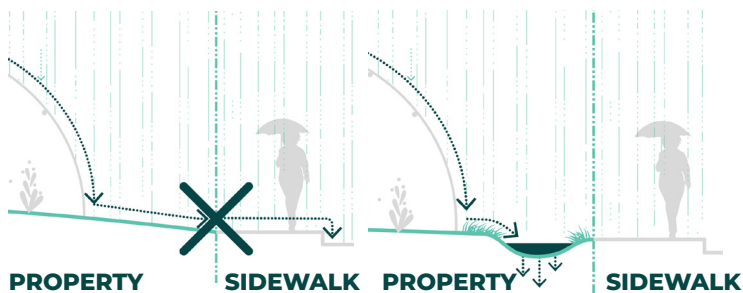
 Call [313-628-0900](tel:313-628-0900) to inquire about tree ownership and to report downed trees.



## Runoff and Erosion

Maintain the property to prevent free flow of stormwater, irrigation water, chemicals, or mud across or onto adjacent lots, properties, public streets, alleys, or into sewers.

REFER TO SEC. 50-12-405. (DSWD)



Best practices can be found here: [www.bit.ly/2ZWFJyT](http://www.bit.ly/2ZWFJyT)

## Stormwater Management

All land development that creates or replaces one-half acre or more of impervious surface are required to follow the City's Stormwater Management Regulations.

Projects that meet this size are required to:

- Develop and submit a Stormwater Management Plan (SWMP) as part of the overall site plan;
- Submit SWMP review fee;
- Obtain DWSD SWMP approval;
- Obtain all necessary permits for construction;
- Construct approved stormwater management practices in approved SWMP;
- Perform annual inspections and allow DWSD onsite to perform annual inspections; and
- Ensure SWMP includes a restrictive covenant and easement agreement for DWSD access

REFER TO SEC. 48-2. (DWSD)

## Have questions or need help?

This table includes contact information for agencies and organizations involved in permitting and maintaining land. You can contact them to ask questions or get more information.

Contact	Location	Contact Information
<b>Buildings, Safety Engineering and Environmental Department (BSEED)</b>	2 Woodward Avenue 4th Floor	www.permits.detroitmi.gov  Development Resource Center: 313-224-2372 drc@detroitmi.gov  Zoning Office: 313-224-1317 zoning@detroitmi.gov  Plumbing: 313-224-3157
<b>Department of Public Works - Traffic and Engineering (TED)</b>	2633 Michigan Ave	313-224-3954
<b>Detroit Water and Sewerage Department (DWSD)</b>	735 Randolph Street Building 1st Floor	313-267-8000
<b>Detroit Parks &amp; Recreation (DPR)</b>	18100 Meyers Rd	313-224-1100
<b>Detroit Land Bank Authority (Land Bank)</b>	500 Griswold St. Suite 1200	844-BUY-DLBA