Land Based Projects: A Path to Purchase, Permit and Design

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 or pick up at 2 Woodward Ave.

1. Getting started

2. Check land zoning

3. Purchase land

4. Permitting

Plot Plan, Site Design, and Maintenance Guide

Read on if you...

- Need to create a plot plan to purchase land or apply for a permit
- Want to understand current city requirements for 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 information20

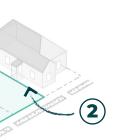
What is a land based project?

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

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<



REFER TO SEC. [ZONING CODE]



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 email a copy of your updated plot plan to BSEED at drc@detroitmi.gov.

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

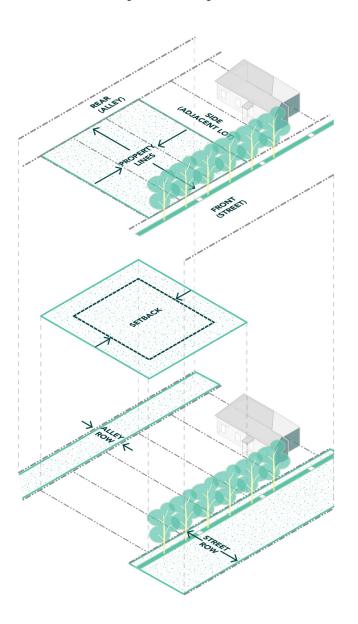
General information about your property lines are available on the Detroit Parcel Viewer, including its width, length and area.

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. 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.



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Plot Plan, Site Design, and Maintenance Guide

Here is what to include on your Plot Plan:

Areas dedicated to seed banking, Write down: permaculture techniques, pollinator ☐ Name and address of the property habitat, row crops, raised beds, planting owner, and address of the property (if areas, flower beds, and paths; for more different from the owner's address) information please refer to Zoning Code **Draw your site:** Section 50-12-397 for more information Note: Plot plans should match what Property lines you submit in your purchase or permit Any sidewalks along property edge applications. Any future changes will require notification to BSEED at drc@detroitmi.gov. ☐ Required setbacks for plantings, structures, and other items from the property line* Label all existing and/or Draw all of the following proposed: existing and proposed features ☐ Streets and alleys next to the property on your plan, if they apply to ☐ Dimensions of your property (length of your current site or proposed the property, in feet, along each side) changes. ☐ Dimensions of all structures (Include the ☐ Hoophouses, buildings, sheds, garages dimensions of each structure by noting its length in feet along each side**) ☐ Fences or other features that define the project edge ☐ Fences -- write what type of fence and how tall it is (for example, "wooden fence, ☐ Driveways or other vehicle access locations 4' tall") ☐ Trees (use a big circle for a big tree and a ☐ Tool storage and chemical/fuel storage small circle for a small tree) areas -- label where you will store these safely, or write down a short description ☐ Signage along the front of the property on where you will store these Compost, brush, and trash storage at the rear of the site ☐ Utility poles and fire hydrants ■ Water access And don't forget: ☐ Rain catchment systems or rain gardens If you're excavating contact Miss Dig by ■ Temporary restrooms and screening calling 811 or by visiting www.MissDig811. ■ Benches, sculptures or other art org elements

^{*} For more information, see setback table at www.bit.ly/2IToN6M

^{**} Note that any building over 200 sq ft (R1, R2) or 120 sq ft (all other zoning) will require a building permit.

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

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

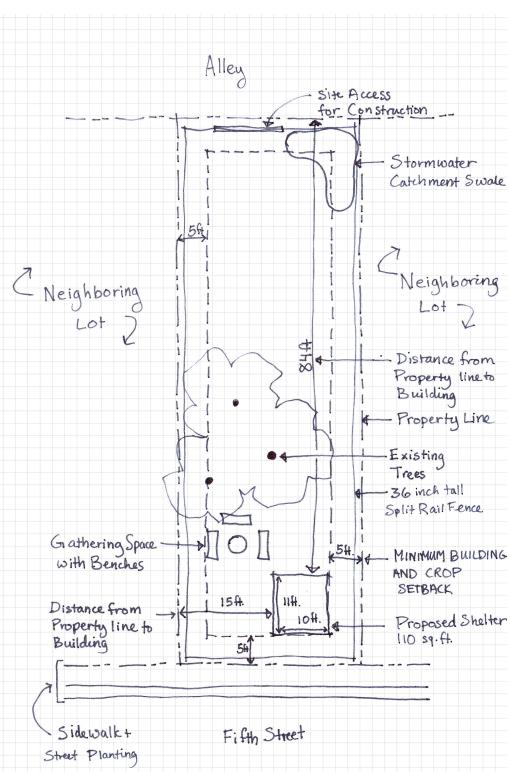
Streets and alleys next to the property

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

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

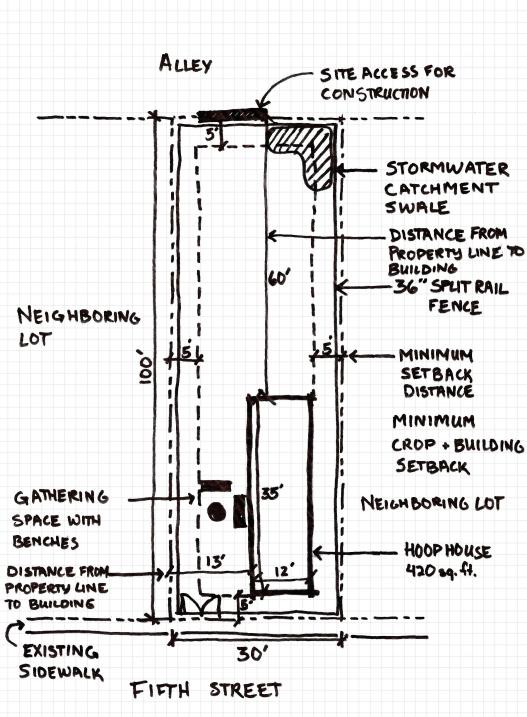
Streets and alleys next to the property

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

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 vou will have:

Row crops/planting areas Raised beds

Label all existing and/or proposed:

Seed banking, permaculture techniques and pollinator habitat

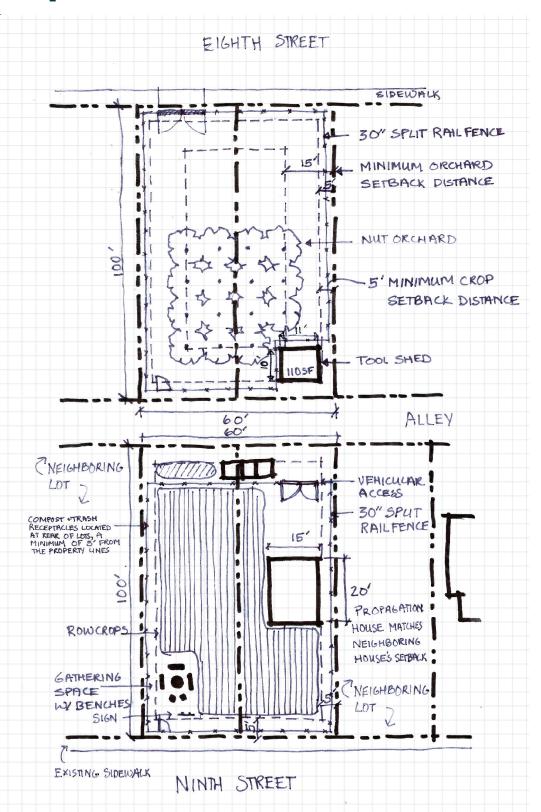
Streets and alleys next to the property

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 plants8
Project edge design9
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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.

Updates to Zoning Regarding Composting

Composting is currently allowed in Detroit's solid waste ordinance and urban agriculture ordinance. The City is currently reviewing municipal code to support increasing diversion of organic materials from landfills for local composting.

These reviews are 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.net), the Michigan Wildflower Association (www.wildflowersmich.org), or the Ladybird Johnson Wildflower Center (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 48 inches or 36 inches if the edge is opaque.
- Fences aligned with the front face of adjacent homes (i.e. front setback line) can be a maximum of six feet.
- 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
- **Detroit Future City** and the American Horticultural Society (703-768-5700) are also great

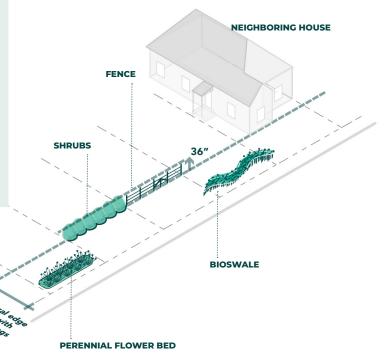
resources for planting border designs.

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. 50-14-381 FOR FENCING REQUIREMENTS.



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.

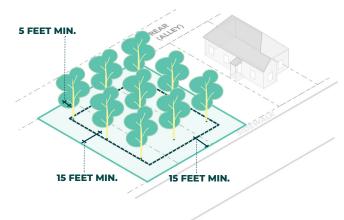
Have fun with your sign! Your sign can express your project's unique character, and can be hand-made, or show off the creative talents of a local artist.

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

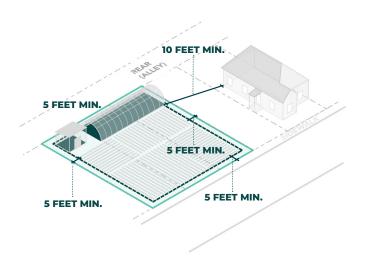
Crops must be a minimum of 5 feet from the property line on all sides.

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)

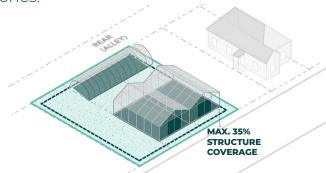


Lot Coverage for Structures

Lot coverage means the portion of a site covered by principal and accessory structures. Keep in mind these rules:

If a building is used as accessory to a single-family or religious dwelling, then the combined lot area of all buildings cannot occupy more than 35% of the lot. Accessory buildings cannot be closer than 10 ft to any principal building. (Sec. 50-13-208)

In R1, R2, and R6 zones, agricultural uses cannot exceet 35% lot coverage. No lot coverage restrictions apply in all other zones.



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

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. All hoophouses must be included in your Plot Plan. You must submit the manufacturer's specifications, construction manual, and a structural evaluation completed by a Michigan licensed engineer for your hoophouse along with your plot plan.

As principle structures, hoophouses cannot exceed 35 ft in height in R1, R2, R3, R6, and B1 zones. As accessory structures, hoophouses cannot exceed 15 ft in any zone. Refer to Sec. 50-13-2 to Sec. 50-13-7.

REFER TO ORDINANCE SEC. 50-12-109 FOR MORE INFORMATION ABOUT HOOPHOUSE ZONING ALLOWANCES.

Allowable Accessory Uses and Structures on Urban Gardens

The following accessory uses and structures are allowed on urban gardens. Buildings over 200 square feet (R1 or R2) 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 (R1 or R2) 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

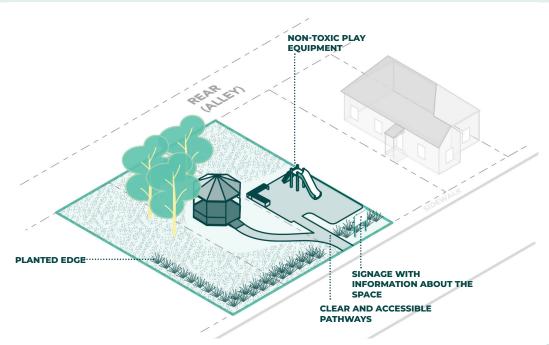
REFER TO SEC. 50-12-522/3. (BSEED)

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 inviting and feel more accessible to the following considerations in mind: the public.

- 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 offhours 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

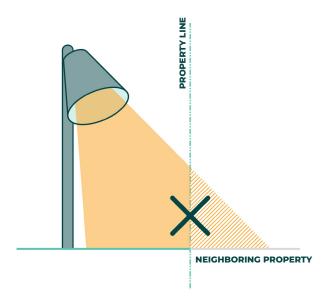
- If the property is intended to be used as a public play space, use only nontoxic paints, materials, and plants.
- Site furniture, play structures, and paving materials should be chosen and located with consideration to maintenance and security.
- Consider adjacencies when selecting a property and identifying 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.

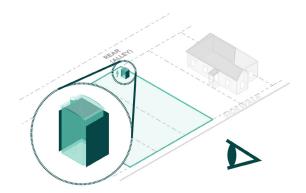
REFER TO SEC. 50-12-401 (BSEED)



Restroom Screening

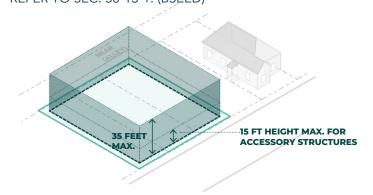
Any temporary restroom facilities must be screened on at least 3 sides from public view with walls of sufficient height.

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



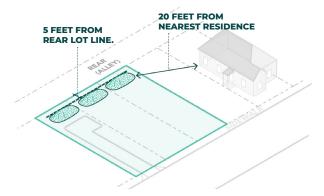
Structure Heights

Residential and community buildings may not exceed 35 feet in height. Accessory structures are limited to 15 frefer to Sec. 50-13-1. (BSEED)



Compost and Trash Location

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



Sites with compost 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 methods for managing and storing compost on your property.

Closed containers, open air compost piles, and compost bins can be easily maintained for producing compost and controlling potential nuisances.

Here are a few commonly recommended best practices:

- Compost organics like fruit/ vegetable scraps, egg shells, coffee grounds and filters, tea bags, garden trimmings [Greens]
- Compost organics like fall leaves, wood chips/shavings, shredded paper [Browns]
- Composting meat, fat, and bones are prohibited in backyard and community compost systems
- No food scraps should be visible in piles or bins; mix them thoroughly with brown materials
- Cover mixed materials with a 4-6' layer (cap) of brown materials to prevent odors, flies, and attracting critters
- Compost close to a water source; regularly check if materials are dry/wet and/or smelly; add water as needed to keep materials moist and to control odors
- Mix, tumble or turn materials regularly to add air, control odors, and to discourage critters from

building habitats

- Keep the space all around piles and bins open, clear of clutter and trash; eliminate hiding places and discourage rodent habitats
- Create a rodent resistant barrier by using a 1/4" hardware cloth inside compost bins and on the ground beneath where bins are located
- FoodPLUS Detroit (313-244-2404) is a local resource for compost education, training and support.





ENCLOSED COMPOST CONTAINER



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 fthroughout the document.

Do composting neatly Compost in organized piles and in containers or bins Locate composting near back of site and safely, and control Avoid blocking sidewalks when delivering or storing for nuisance odors finished compost See pages 13-14 for more Compost at least 20 ft from neighbors' houses/businesses information Harvest crops when ripe and collect fallen fruit quickly. Prevent rodents and Avoid leaving food scraps on the surface in compost piles and bins; mix and cover them with brown materials. See page 14 for more information Provide informational signs about natural landscapes, seed Be clear that natural banking, or permaculture. landscapes are Include information about your landscape plans in your Plot intentional, not just un-Plan or Land Permit Form. mowed Let your neighbors know about your plans. See page 16 for more information Elevate construction materials such as wood planks, tree Store building materials stumps, or fence posts off the ground so they do not decay. neatly Make neat piles or stacks of building materials. See page 12 for more information Store mulch, Make organized and neat piles. Make a clear entrance to the project so these can be easily woodchips, or other delivered onto your site rather than on the sidewalk or the materials neatly See page 16 for more information Don't store these next to the sidewalk, store them inside your project work area. **Rainwater collection** Keep soils and other materials from flowing into other properties, sidewalks or streets after rain events. and storage When storing rainwater, do not let water stand for long See page 19 or more information

See page 9 for more information

Defining your project

edge

periods of time.

Make sure you have a clear entrance to allow for delivery of

Make a straight edge that aligns with property lines.

Don't use the materials listed on page 9.

compost, mulch, or other materials.

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Plot Plan, Site Design, and Maintenance Guide

Neat and Orderly

The property must generally be maintained in an orderly and neat condition. Examples of this include arranging compost in organized piles, containers, or bins, 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)

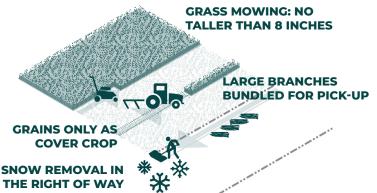
Keep Tall Grass Mowed

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, seedbanking, 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



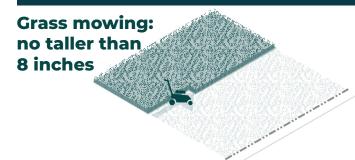
Required:

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

Best Practice:

Till or mow cover crop before it sets seed.

Summer



Required:

Keep tall grass mowed to no more than 8".

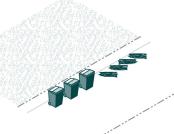
Best Practice:

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 row crop cover and drip lines should be stored in an enclosed structure for the season.

Winter



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



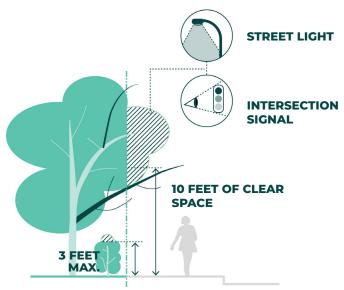
Encroachment

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 to report tree or shrub encroachment from City-owned property!



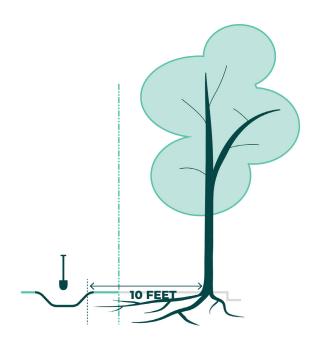
Digging

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 <mark>313-628-0900</mark> 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: <u>www.</u> <u>bit.ly/2ZWFJyT</u>

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