# Community Garden Guidelines

A handbook for developing a Community Garden (and edible landscaping) in Edmonton

Community Gardens Parks and Roads Services City Operations





Version No.	Publication Date	Changes/Notes
1.0	April 2023	Initial publication
1.1	September 2023	Addition of new definitions ("Important Definitions") to support terms used in permits and licence agreements
		Section 3.(a)(iii) is updated to reflect that a separate Parkland Access Permit <i>may</i> be required under certain conditions

This is a living document and should be reviewed and/or updated every two years to ensure alignment with best practices and any related City of Edmonton bylaws, standards, or guidelines.

# **Land Acknowledgement**

The City of Edmonton acknowledges the traditional land on which we reside, is in Treaty Six Territory. We would like to thank the diverse Indigenous Peoples whose ancestors' footsteps have marked this territory for centuries, such as nêhiyaw (Nay-hee-yow) / Cree, Dene (Deh-neyh), Anishinaabe (Ah-nish-in-ah-bay) / Saulteaux (So-toe), Nakota Isga (Na-koh-tah ee-ska) / Nakota Sioux (Na-koh-tah sue), and Niitsitapi (Nit-si-tahp-ee) / Blackfoot peoples. We also acknowledge this as the Métis' (May-tee) homeland and the home of one of the largest communities of Inuit south of the 60th parallel. It is a welcoming place for all peoples who come from around the world to share Edmonton as a home. Together we call upon all of our collective, honoured traditions and spirits to work in building a great city for today and future generations.



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# INTRODUCTION

Community Gardens offer increased opportunities for people to build and sustain relationships and networks, improve partnerships among new and existing organizations, increase consumer knowledge, increase participation in food growing, preserving and preparing activities and generally raise awareness for all citizens.

This document provides guidelines and direction for Community Garden development or enhancement projects, including site design/layout and the selection of plants, trees, shrubs and amenities. This information is closely tied to the City's <u>Design and Construction Standards: Volume 5 Landscape</u> (2022).

The City will work with project proponents throughout the process to help ensure that Community Garden design and installation follows the requirements of the relevant Design and Construction Standards, and these Guidelines, which are both intended to help projects to meet their objectives and provide benefits within the community over the long term while maintaining City standards.

It is recognized that Edmonton's food system is complex, consisting of many interconnected elements that contribute to the local economy and to the City's cultural, financial, social and environmental sustainability.

## SCOPE AND APPLICABILITY

This document applies to Community Gardens as a licenced area on City-owned land (e.g. parks and open spaces), including community league licenced land, and to all the elements of a Community Garden included herein, including edible landscaping.

This document does NOT apply to City-led or developer-led neighborhood or park development or improvement projects that do not contain a community garden as part of the plan, or to typical landscape designs as part of those development projects, which must follow the City of Edmonton Design and Construction Standards.





Westmount Community Garden, 2017

## **Developer Process for Community Gardens**

Developers intending to install a Community Garden must follow these guidelines for the design of the Community Garden area within the development, and the following process applies:

- 1. The Community Garden must be proposed as part of the overall design of the development. Edible landscaping installations (e.g. orchards, shrub beds) must be included in the garden boundary or envelope.
- 2. Community Gardens will become a separate licenced area (or collection of areas, but preferably consolidated) within the development, and the developer will be required to sign a license agreement with the City specific to the Community Garden envelope. All assets within the garden will be owned by the developer, and the developer will be fully responsible for maintenance in accordance with the license agreement.
- 3. The City will issue the Community Garden license agreement to the developer once the land titles and ownership are registered to the City, and once the garden design is approved, prior to construction.
- 4. If a community group or Homeowners Association (HOA) wishes to take over operation of the developer's Community Garden, the City will enter into a new license agreement with the community group or HOA, and then cancel the license agreement held by the developer. Garden asset ownership and maintenance requirements will transfer to the new agreement holder.



If Community Gardens (including edible landscaping projects) are designed and installed by the City on City-owned land, they will also be subject to these Guidelines. A City-built Community Garden would then be turned over to a community group to maintain/operate, and become a licenced area under agreement between the City and the community group.

#### **Target Audiences**

This document is intended to be used by Community Garden project proponents and City of Edmonton staff who review and approve Community Garden project proposals. It will also be a useful reference for external stakeholders and partner groups who promote or have interest in gardening-related activities.

- Project proponents:
  - Community/neighbourhood groups, including Community Leagues, multicultural groups, service clubs and others
  - Social Services Agencies
  - Developers (only where installing a Community Garden, including edible landscaping projects)
- City of Edmonton:
  - City Liaison and community-led project design/approval staff (e.g. Neighbourhood Resource Coordinators, Park and Facility Development Team, Multicultural coordinators, Indigenous Relations, Open Space Planning and Design, etc.)
  - City Operations (CO) staff who review and approve Community Garden projects and provide permits and licence agreements on parkland
  - Urban Planning and Economy (UPE, mainly Subdivision and Development Coordination) staff who approve developer-planted projects where the developer will continue to hold the land/contract
  - Integrated Infrastructure Services (IIS) staff who approve developer projects for enhanced or shared park spaces, where the City will hold the land/contract (this group is a stakeholder only)
- External stakeholder groups and partners in gardening promotion or initiatives, such as:
  - Edmonton Food Council
  - Sustainable Food Edmonton
  - Edmonton Horticultural Society
  - Food4Good



- Edmonton Native Plant Society
- Edmonton Federation of Community Leagues

# WHAT IS A COMMUNITY GARDEN?

A Community Garden is a site where a group of people come together to nurture, develop and sustain a growing space in their community. There are a growing number of Community Garden sites in Edmonton promoting local, organically grown food, healthy and active lifestyles, and safer, more vibrant and connected communities. Community Gardens are not intended as spaces for growing for profit (which would be urban agriculture/farming and subject to different zoning rules).

Community Gardens are primarily focused on food production, but may include species for both food/consumption and for beautification, such as flowers or other ornamental plants, trees or shrubs.

Community Gardens provide many benefits to Edmontonians including:

- Recreation for all ages and abilities
- Beautification of neighbourhoods
- Healthy food production and improved food security
- Strengthening community capacity and neighbour-to neighbour relationships
- Places to share gardening knowledge and experience



Oliver Peace Gardens, 2017



#### **Important Definitions**

<u>Amenities or furniture</u> (for Community Gardens) - semi–permanent or permanent installations such as benches, sheds, water systems, gazebos, concrete pads/foundations, etc.

<u>Approved Community Garden Plans</u> (per the Community Garden permit or licence agreement) - a scale drawing of the City-approved design or layout of a community garden, included within the schedules of the permit or licence agreement.

<u>Basic garden project</u> - under the Community Group Led Construction (CGLC) process, a simple garden typically using only raised planting beds, within an existing licence area or under a new permit area on City-owned land.

<u>Community Garden</u> (per the Community Garden permit or licence agreement) - the entirety of the community garden installation as authorized by City permit or licence agreement, including the City land and all garden elements within the defined boundaries, including plants, trees, shrubs, beds, furniture, fixtures, structures, containers, etc.

<u>Community Garden Area</u> (per the Community Garden permit or licence agreement) - the specific area or envelope of land authorized by the City for the installation and operation of a community garden, the boundaries of which are indicated or mapped within the schedules of the permit or licence agreement.

<u>Edible landscaping</u> - refers to trees and shrubs that produce food, medicine or cultural fruits or nuts, that are *purposefully grown and maintained for harvesting and human consumption*. By extension, this also includes the mulch beds they occupy.

Extensive garden project - under the Community Group Led Construction (CGLC) process, a highly complex garden that consists of multiple elements, design features and/or amenities, within an existing licence area or under a new license agreement on City-owned land. These often have a high dollar value to construct, include multiple stakeholders, and have a high level of risk (eg. public perception, scope, cost, schedule, resourcing, design, construction, operations, etc.) typically of significant impact to the community group's operations.



<u>Hazardous substances</u> (per the Community Garden permit or licence agreement) - any gaseous, liquid, or solid hazardous substances including, but not limited to, petroleum products and byproducts, industrial wastes, contaminants, pollutants, dangerous substances, and toxic substances, as defined in or pursuant to any law, ordinance, rule, regulation, bylaw or code, whether federal, provincial or municipal.

Intermediate garden project - under the Community Group Led Construction (CGLC) process, a more complex garden that consists of multiple elements, design features and/or amenities, within an existing licence area or under a new license agreement on City-owned land.

<u>Licence agreement</u> - generally, a type of contract with the City, where the holder of the agreement takes on the maintenance responsibilities of all assets within the licence area boundaries (e.g. beds, trees, shrubs, plants, amenities) for the duration of the agreement. The exact nature and details of the agreement depends on the project/site and who the agreement holder is (for example, community group, community league or developer).

Ornamental species - flowers, plants, trees or shrubs whose main purpose is beautification, shade or ecological. Even though some ornamental trees or shrubs may bear fruit or nuts of some type, they are not intended or maintained for harvesting and human consumption. However, they may serve as food sources for birds or rodents (e.g. Mountain ash, Cotoneaster, Juniper berries).

<u>Permit</u> - generally, a written authorization or permission ("permit") from the City for a specific purpose. In the case of community gardening, the permit document authorizes the permit holder to use a defined area of City land to install, maintain and operate a garden for a specified length of time, subject to conditions.

<u>Provincially regulated weeds</u> (per the Community Garden permit or licence agreement) - noxious or prohibited noxious weeds that present significant economic, social or ecological risks. These weeds are identified and regulated by the province of Alberta. Detailed lists and information are available at

https://www.alberta.ca/provincially-regulated-weeds.aspx.



#### **Community Garden Permits, License Agreements and User Groups**

Once a Community Garden project proposal is reviewed and approved by the City of Edmonton, the project proponent will be required to obtain a permit or enter into a licence agreement. There are two different tiers of gardens for the purposes of permits or license agreements, as outlined in the table below. The permit or license agreement with the City outlines responsibility for the installation and maintenance of all assets within the proposed Community Garden boundaries for the duration of the permit or agreement. Community Garden projects designs/plans, as approved, are attached to the permit or agreement. Future changes or amendments to the design/plan must also be reviewed and approved by the City, and the permit or agreement amended. This includes all plants, trees, shrubs, beds, amenities/furnishings, compost/waste bins, water tanks, sheds, and so forth falling within the Community Garden boundary, and the boundary itself.

Tier	Typical User Group	Community Garden Project Type	Term	Limitations/Allowances
1	Individuals or Small Community Groups and Organizations	Basic	Two-year permit	No trees or shrubs, or related mulch beds.  No semi-permanent or permanent installations of furniture or other amenities.  Temporary/movable water, waste, compost containers and portable furniture or storage is permitted.  Commercial General Liability Insurance is recommended.  Phased construction approach is permitted with successive permit terms.
2	Established Community Organizations or Developers	Intermediate or Extensive	Five-year agreement	Phased construction approach strongly encouraged.  Commercial General Liability Insurance is recommended.

Once construction is complete (even if phased construction), the Community Garden is subject to inspection by the City to check that the project elements were built according to the approved plan. The City may also survey and map the Community Garden boundary



and assets, or require the permit or agreement holder to submit maps or drawings as an as-built record.

# **Community Garden Construction/Installation and Operation/Maintenance Costs**

It is the responsibility of the Community Garden permit or agreement holder to bear the full

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cost of construction/installation and operation/maintenance of all aspects of the Garden. The City does <u>not</u> provide any seeds/plants/trees/shrubs, building materials, equipment, furniture/amenities, buildings, water, power, nor any other work, supplies or services necessary for the establishment or maintenance of the Community Garden.

The City only supplies the use of City-owned land, free of charge, for approved and licenced Community Gardens.

The City may offer special programs from time to time that provide grant funding or supplies to assist with these projects, as do some external organizations (e.g. <u>Sustainable</u> Food Edmonton Community Gardens Program).

#### **Discontinuation of a Community Garden**

A Community Garden may be discontinued for several reasons, not limited to:

- 1. The permit or licence agreement term ends and either the holder or the City does not wish to pursue a subsequent term.
- 2. The licence agreement holder does not comply with the requirements of the licence agreement.
- 3. The Community Garden location is impacted by a City change, such as rezoning.

Generally, when a Community Garden permit or agreement is discontinued, the City may, at its discretion, attempt to have another community group take over the Community Garden, take the Garden into City inventory (temporarily or permanently), or remove the Garden.

- 1. If the City chooses to remove the Garden, the permit or agreement holder will be responsible for the costs associated with returning the land to its original condition or to the satisfaction of the City, unless the removal is due to rezoning.
- 2. If the City chooses to remove the Garden or take it into City inventory, amenities and assets will be dealt with according to ownership (below).



- 1. The City takes ownership of all trees, shrubs and their mulch beds, and reserves the right to remove or maintain them.
- Ownership of other types of permanent or semi-permanent amenities (e.g. furniture, gazebos, fences, pathways, buildings) is based on which City development process was used to create the Community Garden (City-led project, community-led projects, developer projects, etc.).
  - a. The City reserves the right to remove or maintain any City-owned amenities or assets.
  - b. Any amenities or assets owned by the permit or agreement holder must be removed (at the expense of the permit or agreement holder), transferred to the City, or the community group must continue to maintain these items under a new Maintenance Agreement.

# **HOW TO START A COMMUNITY GARDEN**

The City of Edmonton is committed to expanding the number of neighbourhood Community Gardens. We are proud to have worked with Edmontonians to establish gardens across the city and continue to improve the resources and tools groups need to be successful.

# **Steps to Take**

Knowing the first steps to start a Community Garden in Edmonton will ensure you can plan, design, build and operate a meaningful project for years to come.

If you're a community group seeking City support to start a Community Garden project, you should:

- 1. Review these Guidelines.
- 2. Contact 311 about your garden project idea for City-owned land. 311 will connect you with the appropriate City liaison (such as Neighbourhood Resource Coordinators, Revitalization Coordinators and Community Development Social Workers), depending on your neighborhood and group.
- 3. If the garden would be developed on privately owned land (e.g. church property, business property, land owned by a not-for-profit, school board lands), you can reach out to the Community Gardens team for advice and potential referral to resources for your project idea by email at <a href="mailto:communitygardens@edmonton.ca">communitygardens@edmonton.ca</a>.

If you're a developer who wants to construct a Community Garden you should:

1. Review these Guidelines.



- 2. Include the garden design as part of the Land Development Application (refer to the <u>Developer Process in the Scope and Applicability section</u> for more information).
- 3. Land development inquiries can be forwarded to a Service Advisor at the Edmonton Service Centre by contacting 311.



Community Garden at Larch Park, 2021 (Developer-Led)

## Other Applicable Standards, Policies, Guidelines and Helpful References

It is important to know that while this document sets out the requirements and guidance for Community Gardens in Edmonton as a whole, there are other standards, guidelines and policies that may apply directly to certain features of a Community Garden. The following is a list of these documents, and they will be cross referenced in this document where they apply. Please refer to them where directed.

City of Edmonton Community Gardens webpage

City of Edmonton Community Group Led Construction Projects Guide

City of Edmonton <u>Design and Construction Standards</u>

City of Edmonton <u>Access Design Guide</u> (contains a section on Community Gardens)

City of Edmonton Permits, Development, Construction (for development permit information)

City of Edmonton Storage and Accessory Structures on Parks and Open Space

City of Edmonton <u>Composting</u> - Do It Yourself Compost Bins (email questions to

compost@edmonton.ca)

City of Edmonton <u>Design Guide for a Safer City</u> (refer to section on Neighbourhood Parks for some criteria)

Sustainable Food Edmonton <u>Best Practices for Developing a Community Garden</u>
Alberta Health Services <u>Community Gardens Handbook</u>



Government of Alberta <u>Backyard Pest Management in Alberta - Pests of Deciduous Trees</u> and <u>Shrubs</u>

Government of Alberta <u>Provincially Regulated Weeds of Alberta</u> (must be controlled/removed)

Government of Canada Poisonous Plants of Canada

<u>Community Garden Builders</u> builds accessible gardens in Vancouver, BC (construction examples)

Edmonton Federation of Community Leagues (EFCL) information and a guide on Community Gardens

#### Who to contact for additional information

For program information contact the Community Greening Coordinator by email at <a href="mailto:communitygardens@edmonton.ca">communitygardens@edmonton.ca</a>, call 311 or visit the webpage <a href="mailto:edmonton.ca/communitygardens">edmonton.ca/communitygardens</a>.

# **REQUIREMENTS AND BEST PRACTICES**

This section of the document describes the requirements and best practices for consideration when developing a Community Garden including both living and non-living design elements.



Chappelle Gardens Heritage Point (date unknown)



## 1. General Requirements and Restrictions

The following points are general requirements and restrictions applicable to all Community Gardens and edible landscaping projects:

- a. All Community Garden projects on City-owned land must be approved and permitted or licenced by the City of Edmonton (under a Community Garden permit or licence agreement), including developer-built Gardens on City-owned land that will be turned over to a homeowner association or other community group.
- b. All edible landscaping projects (edible trees and shrubs purposefully grown and maintained for harvesting and human consumption) *must* be licenced under a Community Garden permit or licence agreement, or under an existing licence agreement if the installation is on community league licenced land, and are subject to additional requirements due to the longevity and maintenance requirements of these species. See Section 20 for additional details.
- c. All Community Garden projects on community league licenced land must be fully within the league licenced boundaries or a separate Community Garden permit or licence agreement will be required. Garden projects on community league licenced land are still subject to review and approval by the City.
  - NOTE: The City will not approve garden boundaries that span (overlap) both community league licenced land and City land.
- d. Food growing (in-ground) and edible landscaping is not permitted for contaminated sites. Risk of contaminate uptake can be site and plant species specific.
  - i. When projects are submitted to the City, they are reviewed compared to a map of contaminant risk based on historical use.
     The City may require a change in location if there is high risk or confirmed contaminants in an area.
  - ii. Community Garden proponents are encouraged to do their own soil testing when investigating sites.
- e. Community Garden sites require signage to identify the site and the group responsible for maintenance. Details are contained in <u>Section 10</u>.
- f. Keeping animals shall be in accordance with <u>Animal Licensing and Control Bylaw 13145</u>. At this time, animal husbandry, *including urban beekeeping and poultry,* is <u>prohibited</u> on parkland.



- g. Location and proximity of Garden boundaries and elements to City trees, City assets or other utilities needs to be addressed to ensure that the City trees, assets and other utilities are still fully accessible for maintenance without disturbing the Garden site. This includes accounting for the full size of tree canopies (height, width) and root system (depth, width), at maturity.
  - i. In the case of City trees, any installations need to consider distance from the tree crown (canopy), trunk and roots. Please see the webpage on <u>Public Tree Permits</u> for information on protecting City trees. Generally, nothing is permitted within 5m of a City tree or 10m of a natural stand.
  - ii. The City of Edmonton <u>Design and Construction Standards</u> contains information on required setbacks.
- h. Garden project proposals must be submitted with scale drawings of the design, which will be reviewed by the City to ensure appropriate setbacks, space allowances, boundary locations, etc.

# 2. General Considerations for Garden Design

The success of a Community Garden largely depends on having a strong vision for the purpose of the garden e.g., who will build it, who will use it, who will maintain it, and for how long. These points are the main drivers of the design and the resulting permits/agreements, and available budget will also play a big role.

- a. What is the purpose of the garden? Food growing,
   beautification, education, environmental stewardship or other reasons? Will the garden serve multiple purposes?
  - i. What seasons will the garden be used or visited?
  - ii. How many seasons or years will the garden be intended for?
- b. Who will be building, establishing and maintaining the garden?
  - i. Who will be contributing to the construction?How many people/resources will be available?
    - 1. Will the group hire contractors to assist with or complete the construction?
    - 2. Will there be labour from volunteers?
    - 3. Is large equipment needed for construction?

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- ii. What is the capacity of the people involved to maintain the garden, including plants and structures?
  - 1. How many people will be involved in the maintenance?
  - 2. How much time can people commit to the work?
  - 3. How long are people willing to maintain the garden for?
    One summer or multiple years?
  - 4. Will the group need, or be willing to hire, any contractors to assist with maintenance e.g., watering trees/shrubs, arbor care?
- iii. What is the available budget to build and maintain the garden?

  The City of Edmonton will not share maintenance costs, but some City
  and external programs/resources exist to help build gardens.
- c. Will other people be visiting or using the garden?
  - i. Think about accessibility issues height of beds, pathways (width, material used, etc.), seating, etc.
  - ii. Think about safety and security issues does the garden need fencing, lighting, or pruning/cleaning up adjacent trees which may block sightlines into and out of the garden site? (Note that work on any City-owned trees adjacent to a site must be pre-approved and carried out by City crews only.)
  - iii. What age groups will be welcomed here?
  - iv. Will people with little or no gardening experience be welcomed to the site?

# 3. Choosing a Location and Size

Most Community Gardens will be proposed for City-owned land like parks and open spaces, including community league licenced land. It is important to carefully consider the exact location and size (boundaries) of the garden project to ensure long-term needs and ease of maintenance. Take a close look at the site as there are set back safety considerations when the proposed location is near a sports field (e.g. baseball, soccer, football) or in proximity to underground utilities (eg. power, water). *Keep in mind that the Community Garden permit or licence agreement will include and rely on the approved Garden plan/design. So, if the Garden will be developed in stages or phases, these should be included in the plan in order to avoid having to get approvals and amendments to a licence agreement for things like boundary expansions, or the addition of new trees/shrubs/mulch beds or other permanent or semi-permanent assets. Plan up front, build over time!* 



- a. Site accessibility is important for both people and materials/water transport on and off the site:
  - i. Parking is there a parking lot or street parking?
  - ii. Public sidewalk or pathway access? If near a bike path or cycling lanes, consider installing a bike rack for users who might like to access the site by bicycle.
    - 1. Remember that City-maintained shared use pathways *cannot* be inside Garden boundaries.
    - 2. Community-maintained pathways can be located inside Garden boundaries.
  - iii. If you require off-road vehicle or machine access at the site for installation of the Community Garden,a separate Parkland Access Permit may be required in order to drive over adjacent parkland to access the site. Locations or routes for regular water or waste servicing on adjacent parkland (off road) will be incorporated into the Community Garden permit or licence agreement.
  - iv. Is there easy access to waste removal if required? Compost area?
  - v. Is there easy access to water? Does water have to be trucked in and stored? Can water be collected and stored on site?
  - vi. Will there be fencing installed to delineate or secure the garden that would impact access?
- b. Size of the site and boundaries are important to maintenance and future enhancements:
  - Licence/permit boundaries, features of the garden within the boundaries and fencing must meet all setback requirements from buildings, sidewalks, curbs, water bodies, City-owned trees, utilities, etc.
  - ii. The size of the site should reflect what the proponent is capable of maintaining to City standards in the long-term.
  - iii. Will the site boundaries allow for future garden enhancements, like adding new beds or amenities?
  - iv. Trees/shrubs and their mulch beds must be fully contained within the boundaries of the licence area, even when they are fully grown.
  - v. The <u>City of Edmonton Zoning Bylaw</u> (Section 98) sets out certain requirements that impact garden location, boundaries, structures



and overall design. Please refer to the Zoning Bylaw for specifics. Generally speaking:

- Community Gardens cannot cause pedestrian traffic, vehicle traffic or parking to exceed what is normal to that area (zone).
- 2. Community Gardens cannot generate odour, waste or visual impacts which would not be normal for that area (zone).
- 3. There are maximum areas that can be covered by raised beds or seasonal structures (e.g. hoophouses, cold frames) that would be used to extend the growing season, as follows:

Height of seasonal structure	Maximum Site Coverage of seasonal structure	Maximum total Site Coverage
Less than 1.85m	100%	100%
1.85m - 3.2 m	Total Site Coverage in the underlying Zone	Total Site Coverage in the
Greater than 3.2 m Site Coverage of Principal Dwelling/building in the underlying		Total Site Coverage in the underlying Zone

4. There are height and setback requirements for storage sheds, cisterns, tool sheds, compost bins, or similar structures, and seasonal structures such as hoophouses, cold frames and similar growing shelters (e.g. greenhouses), as follows:

Height of seasonal structure	Minimum Front Setback	Minimum Side Setback	Minimum Rear Setback
1.2 m or less	0 m	0 m	0 m
Greater than 1.2 m -	Principal	0 m	0 m



1.85 m	building in underlying Zone or Overlay		
Greater than 1.85 m - 3.2 m	Principal building in underlying Zone or Overlay	0.9 m	0.6 m
Greater than 3.2 m	Principal building in underlying Zone or Overlay		

# 4. Accessibility in Community Garden Design

The City of Edmonton Access Design Guide (ADG) applies to the planning of new neighbourhoods and to neighbourhood redevelopments on existing parkland to the greatest extent possible. The ADG contains a section on Community Gardens as part of special park amenities. As such, developers must follow those requirements and they are a useful reference for other Community Garden proponents. Generally, the ADG addresses the following points (refer to the ADG for details):

- a. Considerations include the following categories:
  - i. Raised planting beds
  - ii. Adequate seating
  - iii. Sufficient space for wheelchair access or other mobility aids
  - iv. Hard surfaced or wheelchair-friendly pathways/trails
- b. Requirements include the following categories:
  - i. Barrier free access and stable construction materials
  - ii. Seating areas and their location
  - iii. Raised planting box heights
  - iv. Watering source heights and faucet style
  - v. Planter widths/spacing and access continuity

## 5. In-ground Planting Beds

In-ground planting beds are common in Community Gardens and offer flexible design options. This type of planting bed is relatively low cost to establish and typically does not dry out as quickly as raised planting beds. Maintenance considerations often include more weed removal, soil preparation, which may include the addition of compost or rototilling.



- Ensure soil depth and composition are suitable for food growing or other plants.
- b. Beds should be small enough to maintain with a rototiller; too large an area requires larger equipment (e.g., a plow for farm-sized plots of land).
- c. Beds should be properly graded to avoid ponding of surface water.
- d. Planting plots should be delineated and allowances for walking pathways between beds should be considered depending on use and accessibility requirements.
- e. Depending on the site, terracing of beds may be possible and helpful for watering.
- f. Consider using "xeriscaping" techniques to reduce watering needs.



Terwillegar Towne Garden (date unknown)

#### 6. Raised Planters

Raised growing spaces are desirable to both gardeners and plants with deep roots. The soil in planters is often less compacted than in the ground, weed maintenance is reduced, and if designed correctly, can improve access for gardeners. Raised planters require additional watering as they tend to dry out faster than in-ground beds, require more materials and often have higher up front costs.

 Raised planters are built into boxes which should be a suitable height for all ages and abilities of people who will be using the garden. Raised planters should be spaced and aligned to ensure barrier-free access.
 Refer to the <u>Access Design Guide</u> for specific design details.



- b. Planter box materials need to be sturdy and resistant to local climatic conditions as they are typically left in place over the winter months.
- c. Planters can be constructed from a variety of materials including wood, plastic or composite, galvanized metal, concrete, brick or stone.
- d. Consider self-watering planters.
- e. Raised planters are often selected if terracing is desired.
- f. Sample diagrams of planters are available in schematic LA505 of the Design and Construction Standards (Volume 5 Landscaping), in the appendix "Landscape Construction Detail Reference".

#### 7. Mulch Beds for Trees and Shrubs

All trees and shrubs in Community Gardens, whether edible or ornamental, must be grouped into mulch beds to improve growth and survival. Examples of City-owned mulch beds can be found in most neighbourhood parks.

- a. Trees, shrubs and mulch beds must be installed in accordance with the current version of the City <u>Design and Construction Standards (Volume 5</u> <u>Landscaping)</u>, including setback requirements.
- b. Large mulch beds with an adequate soil volume should be used for trees as they greatly increase the long-term sustainability of trees.
- c. Consider the size and spread of trees at establishment versus maturity and construct mulch beds accordingly. Please note that you may be asked to increase the size of the mulch bed as the tree canopy grows. For edible/fruit trees, the mulch bed must extend to the edges of the mature tree canopy to ensure that all possible dropped fruit falls within the mulch bed.
- d. Do not pile or compact mulch around the base of the tree, in order to allow for proper water, nutrient and oxygen flow.

#### 8. Vertical Structures

Vertical structures used in gardens can maximize space, add structural variation, create shade and improve accessibility. Many plant varieties require supportive structures to grow and climb vertically. Use existing structures at the garden or consider adding a trellis, wall planters, tower gardens, hooks for hanging baskets, a pergola, an arbor or fencing.



- a. Consider the size and weight of mature plants that will grow on the structure so that the structure will support them as they grow.
- b. Consider possible design visibility through or around any structures to try and maintain some sightlines for safety and security (for additional details refer to the <u>Design Guide for a Safer City</u>).
- c. Vertical structures must be approved by the City. Additionally, any structures over 10 square meters in size will require a <u>development</u> permit and must meet requirements in <u>Section 50</u> of the <u>City of Edmonton Zoning Bylaw</u>.

#### 9. Water Sources

Gardens flourish when properly maintained and onsite access to water is strongly recommended. There are a number of ways gardeners typically collect and store water at a Community Garden including access to an outdoor spigot from an adjacent building, roof collection requiring rain chains or rain barrels, water totes or cisterns, irrigation systems, or a fountain. Occasionally gardens have more than one water source. *The City of Edmonton does not provide water to Community Gardens*.

- a. Rainwater collection systems and containers can be positioned to capture runoff from a roof structure of a shed or other buildings.
- b. Structures can be built to provide positive flow (e.g., tiered series of barrels).
- c. Totes, tanks or cisterns should be close to road or parking lot access, so they can be easily filled by a private water hauler.
- d. Community Garden groups can obtain a <u>permit from Epcor to use a</u> nearby hydrant to fill tanks/cisterns.
- e. Water storage vessels/containers must be clean enough to be classified as potable storage to ensure that contaminants are never transferred to garden produce.
  - i. However, vessels/containers should be marked as "Non Potable Water" as filling or watering hoses or spigots may not be kept clean enough for the water to be directly consumed.
- f. Consider securing vessels and water from theft or waste, such as locking lids or spigots.
- g. Water storage vessels should be installed on a pad for stability, ease of maintenance and to improve access. Additional considerations for concrete pads, including size and setbacks, are included in the <u>Design and</u>



- <u>Construction Standards (Volume 5 Landscaping)</u>, under Site Specific Features, which could apply to pads for vessels.
- h. For accessibility, any watering source should be located in an open location at low height with an easy lever faucet system. Details can be found in the <u>Access Design Guide</u>.
- i. If the site has access to metered water, the garden must be on a meter separate from City amenities (e.g. spray decks).
- A <u>development permit</u> may be required for certain types of water storage systems.

## 10. Garden Signage

A garden sign is required to identify the garden and tells the public who is responsible for the site.

- a. Signage shall only include the name of the garden/site,
   Community Garden permit number and contact
   information for the person(s) responsible for
   maintaining the site.
  - Signs are not permitted to contain commercial advertisements, political or religious messaging.



Garden signage example

- ii. Using a scannable QR code on the sign linked to the contact information (instead of printed contact information), can help ensure that the sign remains up to date.
- b. Temporary signs may be used to communicate event information.
- c. Signs of a more permanent nature are encouraged to ensure quality of the signage and installation. <u>Section 59</u> of the <u>City of Edmonton Zoning</u> <u>Bylaw</u> will apply.
- d. Signage shall be constructed of durable, weather-resistant material, such as wood, metal, rock or coroplast.
- e. Signage should be clear and easy to read and provide text with a mix of upper and lower case letters as outlined in the <u>CNIB's Clear Print</u>
   <u>Guidelines</u>. Consider multiple locations if the garden site is larger.
- f. Signs may be installed on garden fencing or other fixtures.
- g. A <u>sign permit</u> may be required.



#### 11. Fences

A fence can be beneficial to create a boundary around the garden site. A fence helps to identify the area and separate it from adjacent space and uses, and can help to prevent or reduce damages from animals or people passing through the site.

- a. Any gates in the fencing must not be locked.
- b. Entry should be wide enough to accommodate people of all ages and abilities (including those who use wheelchairs or other mobility aids), as well as the easy movement in/out for supplies and waste.
- c. Fencing should accommodate the full build-out plan of the garden without exceeding the approved garden boundary.
- d. Temporary fencing (e.g. snow fence, wattle such as woven branches/slats, etc.) should be installed correctly to remain upright and in good condition, but does not require City approval.
- e. Permanent fencing (e.g. wood rail, chain link, wrought iron, picket, etc) must be approved by the City and must be installed in accordance with the current version of the City <u>Design and Construction Standards</u> (<u>Volume 5 Landscaping</u>), including setback requirements.
- f. A <u>development permit</u> may be required.

# 12. Accessory Storage Structures



Dovercourt Community Garden

Garden maintenance often requires basic yard and hand tools, which may be stored on-site. A storage and/or accessory structure is any structure whose primary purpose is to support the on-site use and/or programming of the park or open space, including support for any existing on-site facilities, amenities, operations and/or activities. Refer to the <a href="Storage and Accessory">Structures on Parks and Open Space</a> for more information.

a. See <u>Section 3 of this document</u> for height and setback requirements for storage sheds, tool sheds, or similar structures. The requirements are defined by the City of Edmonton Zoning Bylaw.



- b. Storage structures shall only be used for materials or equipment associated with the use and maintenance of the Community Garden.
- c. Storage structure entryways should consider accessibility and ease of use.
- d. Windows should be positioned and sized to discourage vandalism or theft.
- e. Consider installing a renewable energy source (e.g. solar panel system) if power is needed.
- f. A <u>development permit</u> may be required.

## 13. Compost Bins

Compost bins are commonly installed at garden sites to manage garden material such as grass clippings, fallen leaves, flower and vegetable waste, small twigs, straw, hay and snow. Refer to the City of Edmonton <a href="Composting">Composting</a> - Do It Yourself Compost Bins resource for design examples.

- See <u>Section 3 of this document</u> for height and setback requirements for compost bins or similar structures. The requirements are defined by the City of Edmonton Zoning Bylaw.
- b. The <u>City of Edmonton Zoning Bylaw</u> (Section 98) sets out certain requirements that impact compost storage and management. Please refer to the Zoning Bylaw for specifics. Generally speaking, it covers the following topics:
  - i. Compost pile location and setbacks, barriers and bins
  - ii. Bins must have a lid
  - iii. Compost pile visibility
  - iv. Allowable compost materials
  - v. No use of mechanical processes
- c. Additionally, woody materials (from trees/shrubs) that cannot be composted must be either removed from site (e.g. to EcoStation) or chipped/mulched and used in mulch beds on site. Diseased branches and material needs to be removed from the site and disposed of in the landfill or incinerated off-site.
- d. Ideally, compost storage will be located and fully enclosed to reduce odour, visibility and access to both people and wildlife/pests, including having a locking lid.



- e. Access to compost storage should leave enough space or a path for a wheelbarrow and related maintenance activities.
- f. Compost storage and volume should be manageable by the maintenance group and not require large equipment.

# **14. Litter and Waste Receptacles**

Although the majority of waste created at a garden can be reused and repurposed as compost, some items are only suitable for a litter receptacle. Gardeners may opt to dispose of waste at another location, including residential bins. If a waste receptacle is desirable at the site, pay attention to both the design and maintenance requirements for





selected option. The City is not responsible for waste removal.

- a. Ideally, litter/waste receptacles will be located and fully enclosed to reduce odour, visibility and access to both people and wildlife/pests, including having a tamper-resistant or locking lid.
- Examples of receptacles include metal drums, heavy duty polycarbonate (plastic) bins/carts, aggregate bins, or other commercial or industrial-grade receptacles.
- c. Receptacles may be installed on a pad for ease of maintenance (e.g. mowing around them) and to improve access and removal of waste. Additional considerations for concrete pads, including size and setbacks, are included in the <u>Design and Construction Standards (Volume 5 Landscaping)</u>, under Site Specific Features (furniture).
- d. Receptacles should be sized for maintenance led by individuals, rather than requiring commercial removal service.



#### 15. Tables

Tables in a Community Garden have many uses not limited to gathering at events, preparing plants and seasonal resources, or for sorting and cleaning harvested plants. Tables come in many shapes, sizes and materials and provide an opportunity for creative design.

- Types of tables may include picnic tables, potting tables and gathering tables. For an example of an accessible picnic table refer to the <u>Access</u> <u>Design Guide</u>
- b. If tables are to be permanent installations, materials should be durable to withstand weather and winter conditions.
- c. To ensure stability and prevent theft, tables are typically secured in place and installed on a concrete pad. Tables cannot be anchored to trees. Additional considerations for concrete pads, including size and setbacks, are included in the <u>Design and Construction Standards (Volume 5</u> <u>Landscaping)</u>, under Site Specific Features (furniture).
  - i. Moveable furniture can be a risk for theft, damage, or used to access or climb trees or other items (e.g. sheds, cisterns), which can then pose a safety hazard.
- d. If portable/folding tables are utilized, consider secured, on-site storage for them.
- e. Tables should be of a typical height, appropriate for a variety of users.
- f. When installing tables, consider the location for accessibility, shade, views, etc.
- g. Sample diagrams of tables and installations are available in schematic LA501 and LA503 of the <u>Design and Construction Standards (Volume 5 Landscaping)</u>, in the appendix "Landscape Construction Detail Reference".

#### 16. Outdoor Seating



Places to sit, relax and take in the beauty of nature are usually welcome in a Community Garden. There are a wide variety of outdoor seating options and materials for consideration. It's a great way to add creative design into the space, keeping in mind a few basic principles and recommendations.

Cloverdale, 2017



- Seating examples include benches, commemorative benches, classroom/amphitheater style seats (group seating), garden stools, lounger chairs, etc.
- b. If seating is to be a permanent installation, materials should be durable to withstand weather and winter conditions.
- c. Seating should be at least 3m away from litter/waste receptacles and compost storage.
- d. Ideally, seating is secured in place and anchored to the ground or installed on a concrete pad. Seating cannot be anchored to trees.
   Additional considerations for concrete pads, including size and setbacks, are included in the <u>Design and Construction Standards (Volume 5</u> <u>Landscaping)</u>, under Site Specific Features (furniture).
  - i. Consider that moveable furniture can be a risk for theft, damage, or used to access or climb trees or other items (e.g. sheds, cisterns), which can then pose a safety hazard.
- e. If portable seating is utilized, consider secured, on-site storage for it.
- f. Some accessible seating should be provided that offers both a back and an armrest; refer to the <u>Access Design Guide</u> for more information.
- g. When installing seating, consider the location for accessibility, shade, views, etc.
- h. Sample diagrams of benches and installations are available in schematic LA500 and LA502 of the <u>Design and Construction Standards (Volume 5 Landscaping)</u>, in the appendix "Landscape Construction Detail Reference".

#### 17. Pathways



Garden paths can create an inviting atmosphere in a garden, leading users to discover the many spaces of the site. Pathways can be both aesthetically pleasing and functional when they are well designed.

 Pathway materials may include wood/bark chip, gravel, packed sand, pavers or sidewalk blocks but should be installed correctly to avoid settling over time and the creation of trip hazards.



- b. The choice in materials will impact pathway durability, aesthetics and accessibility. Consider that wider paths with firm, stable surfaces are typically better for people using mobility aids. Refer to the <u>Access Design Guide</u> for design considerations, though the requirements in the ADG are specific to major pathways between park amenities.
- c. If constructing a pathway, consider a route through the garden that connects to various features and that may aid in maintenance activities.

#### 18. Garden Beautification

Garden beautification opportunities are permitted and encouraged to add interest and value to Community Gardens. Examples of beautification elements can include sculptures, lighting, water features/fountains, decorative boulders/rocks, bird baths, gazebos, etc.

- a. Boulders (large rocks) or stone features provide interest but also present a safety hazard if used incorrectly. Boulders/rocks or constructed rock features must be immovable by hand and located in visible areas to minimize public safety hazards like trips and falls. They should also not impede maintenance activities. Additional information can be found in the <u>Design and Construction Standards (Volume 5 Landscaping)</u>, in "Site Specific Features".
- b. Large structures such as gazebos or pergolas should be carefully considered due to higher maintenance requirements, and should be installed on a structurally designed base or pad for stability and longevity. Additional considerations for concrete pads, including size and setbacks, are included in the <u>Design and Construction Standards (Volume 5 Landscaping)</u>, under Site Specific Features (furniture).
- c. Water features should be carefully considered due to higher maintenance requirements. They should utilize a metered water source for ease of installation and maintenance of fresh water content to avoid stagnant pooling.
- d. Commemorative plaques should be made of weather resistant materials and have security hardware.
- e. Garden lighting should be solar powered, and well-installed to endure wind/weather and to deter theft and vandalism. Lighting should face inward to the site or otherwise not shine into private property.



- f. Murals can add interest and beauty, and are not meant for advertising or political use. Carefully consider maintenance and protection of these items.
  - i. Murals can be an effective way to create a sense of belonging, animation and character in a neighborhood. From a Community Garden perspective, murals would tend to be adjacent or near to the garden rather than installed within it, in most cases, such as on the wall of a nearby community league building or privately-owned building. Mural installation may require a development permit as well as permission of the building/property owner.
  - ii. For more information about public artworks in Edmonton, refer to Public Art to Enhance Edmonton's Public Realm Policy C458D and the Capital City Clean Up website.

## 19. Species Awareness and Restrictions

Generally, planning and selecting plantings for a Community Garden need to consider the following:

- a. Species that are <u>restricted through provincial</u> <u>legislation</u> (noxious or invasive plants/weeds) are not permitted.
- Avoid planting species near each other that are hosts for common diseases, to minimize spread if any one plant becomes infected. For example:
  - Black knot (fungal) Cherry family (e.g. chokecherry, Mayday)
  - ii. Fire blight (bacterial) Rose family (e.g. crabapple, pear, mountain ash, cotoneaster, raspberry, saskatoon)
  - iii. Apple scab (fungal) Apples, pears
  - iv. Apple/cedar/hawthorn rust (fungal) Apple, crabapple, hawthorn, saskatoon, juniper
  - v. Late blight (fungal) Tomatoes, potatoes
- c. Carefully consider certain species that are likely to creep or spread to other areas of the garden or outside the garden boundary. Plan their

Species
selection
needs to
consider a
number of
factors to
help ensure
the growth
and health
of the
garden



location in the garden, take extra care to contain them, or avoid planting them. For example:

- i. Caragana species
- ii. Variegated goutweed
- iii. Hops (unless contained in a large pot)
- iv. Lily of the valley
- v. Anemone windflower
- vi. Fruiting species raspberry, strawberry, certain species of saskatoon (these are great fruit producers but keep well away from garden boundaries)
- d. Be aware of safety concerns (e.g. poisonous plants). For example:

Poisonous for people	Poisonous for animals/pets	
<ul> <li>Castor bean</li> <li>Brugmansia- Angels Trumpet</li> <li>Garden monkshood</li> <li>Delphinium</li> <li>Columbine</li> <li>Ranunculus</li> <li>Pasque flower</li> <li>Bugbane</li> <li>Globe flower</li> <li>Morning Glory</li> <li>Anemone - windflower</li> <li>Hellebore</li> <li>Meadow Rue</li> </ul>	<ul> <li>Lily of the valley</li> <li>Castor bean</li> <li>Crocus</li> <li>Tulips</li> <li>Yew</li> <li>Daffodils</li> <li>Lilies</li> <li>Hyacinths</li> <li>English ivy</li> <li>Brugmansia - Angels Trumpet</li> <li>Globe flower</li> <li>Anemone - windflower</li> <li>Meadow rue</li> <li>Garden monkshood</li> <li>Delphinium</li> <li>Columbine</li> <li>Ranunculus</li> <li>Pasque flower</li> <li>Bugbane</li> </ul>	

# 20. Trees, Shrubs and "Edible Landscaping"

Trees and shrubs may be included in Community Gardens for either general enhancement (ornamentals) or edible species producing fruits, nuts, etc. Trees and shrubs, whether ornamental or edible, are a different type of asset in a Community Garden because they live for decades and generally require considerably more and/or specialized care and maintenance compared to perennials or annual plantings. They also take considerably longer to establish before they are capable of producing harvests. As such, planting trees and shrubs requires careful consideration, planning and commitment.





Flowering crabapple tree in Hawrelak Park (date unknown)

The term "edible landscaping" refers to trees and shrubs that produce food, medicine or cultural fruits or nuts, *purposefully grown and maintained for harvesting and human consumption*. By extension, this also includes the mulch beds they occupy.

NOTE: All trees and shrubs in Community Gardens are required to be grouped together into mulch beds. Details on mulch beds can be found in <u>Section 7</u> of this document.

Edible tree and shrub species are not limited to fruits or nuts. Other parts of the plant may also be harvested and consumed, such as leaves, roots, tubers, stems, seeds, buds and flowers, depending on the species. Care must be taken to know what part of the tree or shrub is edible, and whether it can be consumed raw or must be cooked. Also consider that they are likely publicly accessible and could be harvested freely despite the Community Garden group's best intentions.

The benefits of edible trees and shrubs are:

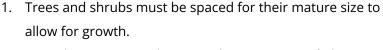
- Increased opportunities for harvesting while increasing food available for surrounding communities (particularly with fruit species).
- Increased species diversity throughout Edmonton as a strategy to create healthy and sustainable forests, parkland and shrub mulch beds.
- Fruit bearing trees and shrubs are aesthetically pleasing and increase the beautification of surrounding landscapes.



- Increased opportunities to build community relationships and social interactions.
- Trees and shrubs attract and support beneficial wildlife and pollinators.

# TREES - considerations and requirements:

- a. Selecting ornamental or edible trees
  - i. Consider the size of trees upon planting versus how big they will be at maturity - height, width and root zone.



- Consider staggering the sizes of trees at time of planting to create variation in life stages. Initial planting should include a variety of tree sizes such as whips, potted, and balled and burlapped. The more mature at the time of planting, the more likely the period of stress following transplanting.
  - ii. Fruit trees tend to have low canopies.
- 1. To ensure that foot or vehicle traffic is not impeded, avoid planting near roadways, sidewalks, and walkways.
- iii. Fruit trees are not salt tolerant and should not be planted by roadways.
- iv. Edible tree species drop fruit/nuts and can be messy and cause maintenance concerns.
  - Fallen fruit attracts vermin and insects (e.g. wasps, rodents). This can be a public safety concern, especially near playgrounds or recreation fields.
  - 2. Tree canopies should not overhang hard infrastructure such as walkways or patios.
  - 3. Edible trees should not be planted on boulevards or road Rights-of-Way areas.
  - 4. Mulch beds must be large enough and shaped/placed to ensure that they catch any falling fruit or nuts, including when the tree is fully grown.
- v. At least two varieties of the same tree should be planted to allow for cross-pollination.
- vi. Planting for beneficial insects:



- 1. Example: Planting a variety of perennials or annuals and other shrubs that may attract pollinators over the course of the growing season.
- 2. Example: Planting dill to attract parasitic wasps.
- vii. Avoid planting trees near other trees, shrubs or plants that can serve as hosts for pests. See <u>Section 19</u> for more information on species considerations.

# b. Growing site considerations:

- i. Soil composition and quality
  - Note that edible species cannot be planted in contaminated soils where the contaminants can transfer to the plant. See Section 1 for additional information on soil contamination and testing.
  - 2. Well-drained soils are important, as fruit trees in particular do not thrive in wet, saturated soils.
  - 3. Soil pH, salinity and other nutrient content (e.g. organic matter) will also impact growing conditions, and will vary by species.
- ii. Easy access to water for the greater needs of edible trees.
- iii. Select a sunny and sheltered spot away from prevailing northwest winds to protect more delicate flowering/fruiting species, especially for those species that are to be overwintered or are not hardy for the Edmonton area.

#### c. Planting tips

- i. Fruit trees are best planted in spring. Many tree species can also be planted in fall when they are shutting down for the season to reduce transplant shock as long as they are thoroughly 'watered in'.
- ii. Bare root/whips should be planted while dormant as they will be better at adapting to a new environment (typically spring just prior to leaf out in unfrozen soils)
- iii. Potted will be larger than bare root and take longer to establish.
- iv. Balled and burlapped larger than bare root or potted, ensure that there is adequate spacing in accordance with the <u>Design and Construction Standards (Volume 5 Landscaping)</u>.
- d. Maintenance, agreements and harvesting



- With an increase of fruit bearing trees, there may be a surplus of fruit that will require harvesting.
- ii. Individuals are responsible for managing all health and safety measures associated with maintaining and harvesting edible trees:
  - 1. No ladders are permitted. Harvested fruit must be picked from ground level or off of the ground.
  - 2. Use of tools and equipment may be required for maintenance, and persons using these tools or equipment must be properly trained (e.g. saws, pruners).
- iii. Harvested fruit is for personal use only and is not permitted for sale. It may be donated to food charities or food banks.
- iv. Fruit must be picked and cleaned up often to mitigate the following risks:
  - 1. Rotting fruit attracts wildlife (including coyotes), pests, and disease.
  - 2. Operational risks related to increased difficulties associated with turf maintenance.
- v. Remove suckers often to prevent future maintenance issues such as crowding and spreading.
- vi. Regular watering to assist with establishment and growth.
- vii. Mulching is an important factor and beds need to be refreshed periodically.
- viii. Mulch beds should be weeded regularly per season as weeds are a competitor for water and nutrients:
  - 1. Remove weeds by hand often.
  - 2. Herbicides/pesticides are not permitted.
- ix. Recommendations for tree stakes, guy wires, and flagging are found in the <u>Design and Construction Standards (Volume 5 Landscaping)</u>.
- e. Pests and disease
  - It is important to continue monitoring trees for signs of pests and disease, and to treat, prune or remove affected plantings to avoid spread.

#### **SHRUBS** - considerations and requirements:

a. Selecting ornamental or edible shrubs



- i. Consider the size of shrubs upon planting versus establishment and how big they will be at maturity height, width and root zone.
  - 1. Trees and shrubs must be spaced for their mature size to allow for growth.
- ii. Consider grouping the same or similar species.
  - 1. Mixing ornamentals and edible species in the same mulch beds may make it more difficult to harvest the edible ones or carry out maintenance at different times.
- iii. Consider the pollination needs. Some species require separate male and female plants in order to produce fruit. For example, Common sea buckthorn.
- iv. Consider harvest times of different species so the harvest season is longer.
- v. Leave room to access, harvest and work in the shrub bed area.
- vi. Consider the maintenance needs of the shrubs, pest management and disease control.
- vii. To ensure that foot or vehicle traffic is not impeded by wide-spreading species, avoid planting near roadways, sidewalks, and walkways.
- viii. Avoid planting next to roadways or on center medians due to vehicle safety, salt, and pollution.
- ix. Edible shrub species drop fruit/nuts and can be messy and cause maintenance concerns.
  - Fallen fruit attracts vermin and insects (e.g., wasps, rodents). This can be a public safety concern, especially near playgrounds or recreation fields.
  - 2. Tree canopies should not overhang hard infrastructure.
  - 3. Edible shrubs should not overhang walkways.
  - 4. Edible trees should not be planted on boulevards or rights-of-way areas.
  - Mulch beds must be large enough and shaped/placed to ensure that they catch any falling fruit or nuts, including when shrubs are fully grown and ones that spread out or sucker.
- x. Planting for beneficial insects:



- 1. Example: Planting a variety of perennials or annuals and other shrubs that may attract pollinators over the course of the growing season.
- 2. Example: Planting dill to attract parasitic wasps.
- xi. Avoid planting shrubs near other shrubs, trees or plants that can serve as hosts for pests. See <u>Section 19</u> for more information on species considerations.

# b. Growing site considerations:

- i. Soil composition and quality
  - Note that edible species cannot be planted in contaminated soils where the contaminants can transfer to the plant. See <u>Section 1</u> for additional information on soil contamination and testing.
  - 2. Well-drained soils are important, as many shrub species do not thrive in wet, saturated soils.
  - 3. Soil pH, salinity and other nutrient content (e.g. organic matter) will also impact growing conditions, and will vary by species.
- ii. Easy access to water for the greater needs of edible shrubs.
- iii. Select a sunny and sheltered spot away from prevailing northwest winds to protect more delicate flowering/fruiting species, especially for those species that are to be overwintered or are not hardy for the Edmonton area. Avoid planting in areas that receive prolonged periods of shade caused by taller nearby trees or buildings.
- iv. Don't plant species that are hosts of disease near their counterpart. For example apples/Saskatoon berry near cedar/juniper due to rust transmission.

#### c. Planting tips

- Edible shrubs are best planted in spring. Many shrub species can also be planted in fall when they are shutting down for the season to reduce transplant shock as long as they are thoroughly 'watered in'.
- ii. Bare root should be planted while dormant as they will be better at adapting to a new environment (typically spring just prior to leaf out in unfrozen soils).
- iii. Potted will be larger than bare root and take longer to establish.



- iv. Balled and burlapped larger than bare root or potted, ensure that there is adequate spacing in accordance with the <u>Design and Construction Standards (Volume 5 Landscaping)</u>.
- d. Maintenance, agreements and harvesting
  - i. With an increase of fruit bearing shrubs, there may be a surplus of fruit that will require harvesting.
  - ii. Individuals are responsible for managing all health and safety measures associated with maintaining and harvesting edible shrubs:
    - 1. Use of tools and equipment may be required for maintenance and persons using these tools or equipment must be properly trained (e.g., saws, pruners).
  - iii. Harvested fruit is for personal use only and is not permitted for sale. It may be donated to food charities or food banks.
  - iv. Fruit must be picked and cleaned up often to mitigate the following risks:
    - 1. Rotting fruit attracts wildlife (including coyotes), pests, and disease.
    - 2. Operational risks related to increased difficulties associated with turf maintenance.
  - v. Remove suckers often to prevent future maintenance issues such as crowding and spreading.
  - vi. Regular watering on an ongoing basis will assist with establishment and growth.
  - vii. Mulching is an important factor and beds need to be refreshed periodically.
  - viii. Mulch beds should be weeded five times per season as weeds are a competitor for water and nutrients:
    - 1. Remove weeds by hand often.
    - 2. Herbicides/pesticides are not permitted.

#### e. Pests and disease

 It is important to continue monitoring shrubs for signs of pests and disease, and to treat, prune or remove affected plantings to avoid spread.

