

LANGLEY URBAN AGRICULTURE PROJECT

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BOARD #1



PROJECT DESCRIPTION

The Langley Urban Agriculture Project is a planning and design collaboration between the City of Langley, Metro Vancouver and the Institute for Sustainable Food Systems at Kwantlen Polytechnic University which aims to bring urban agriculture and community amenity space to a 23 acre (9.4 ha.) BC Hydro transmission right-of-way (ROW) in the City of Langley.

This site is positioned for the development of urban agriculture that will benefit the community and be a model for other communities across the region. The project planning phase has been funded by Metro Vancouver.

WHAT IS URBAN AGRICULTURE?



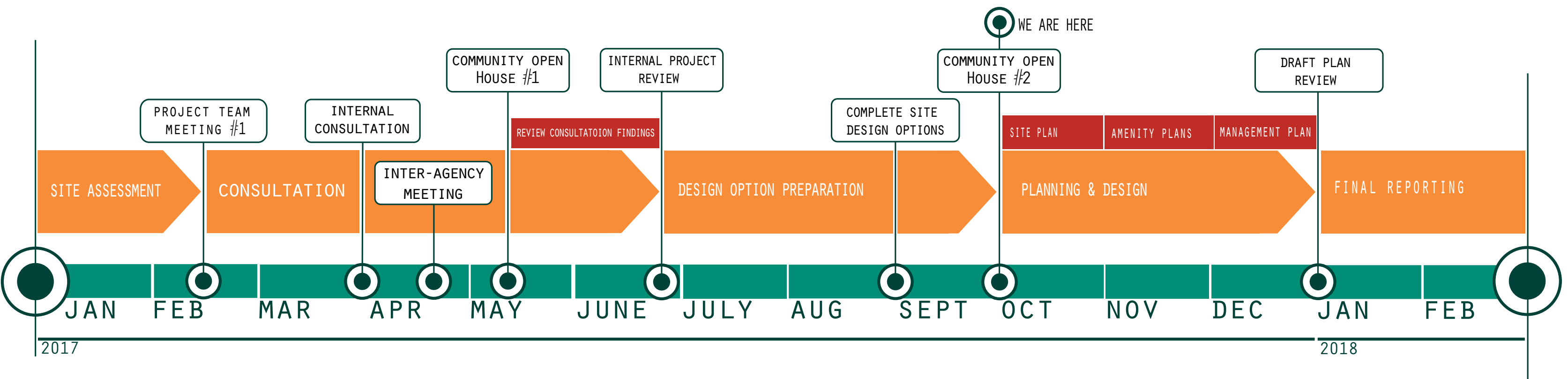
Urban Agriculture (UA) is any combination of activities that may **produce, process, and distribute food and other products, on land in urban areas, applying intensive production methods to yield a diversity of agricultural products.**

PROJECT PARTNERS



PROJECT TIMELINE

Following Community Open House #2 planning and site design will continue through the end of 2017. Site plans will be released and project reporting will take place in January and February of 2018. This will conclude the planning process which has been made possible with funding support from Metro Vancouver.



COMMUNITY OPEN HOUSE #2

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BOARD #2

WELCOME!

Welcome to Community Open House #2 for the Langley Urban Agriculture Demonstration Project. Thank you for joining us to provide feedback on the design options proposed.

The project team has prepared three design options for the site with the aim of creating a vision for this City owned BC Hydro Right-of-Way that can facilitate urban agriculture.

Feedback provided by residents and stakeholders through Community Open House #2 will inform one final design proposal for the site. The final design proposal and accompanying implementation and management plans will then be presented to City Council in early 2018.

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CONTACT

Please contact project team members if you have any additional feedback about the project going forward.

City of Langley
Roy Beddow
Deputy Director of Development Services & Economic Development
rbeddow@langleycity.ca, 604.514.2817

Institute for Sustainable Food Systems
Emily Hansen
Research Associate
emily.hansen@kpu.ca, 604.599.2559

PROCESS

1. REVIEW DESIGN OPTIONS

Please review each of the design OPTIONS.

2. PROVIDE FEEDBACK

Submit your feedback about the OPTIONS presented by completing the “Questions to Consider” sheet before you leave.

Sticky notes have also been provided for you to give feedback specific to each OPTION.

3. STAY CONNECTED

If you haven’t already, provide your email address to receive project updates, and information about the final project plan and report.

A summary of the feedback from Community Open House #2 will be posted on the City of Langley’s website following the event.

QUESTIONS TO CONSIDER

The project team would like to collect as much feedback from the public as possible to inform planning and design of the final site plan.

1. Of the OPTIONS, which do you prefer?

- ☐ THE CLASSROOM
- ☐ THE ORCHARD
- ☐ THE FARM

2. What modifications would you make to the OPTIONS?

Is there anything you would add or take away from the OPTION you most preferred? Any other combinations you would consider?

3. What challenges do you think could arise with the proposed OPTIONS?

Are there any specific challenges associated with the OPTIONS as they have been presented? What recommendations would you make to address them?

4. What additional comments do you have about the project?

*Pick up a “QUESTIONS TO CONSIDER” page at the welcome table, fill it out and leave it before you go!

PROJECT BACKGROUND

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UA IN HYDRO RIGHT-OF-WAYS

The City of Langley is committed to working with BC Hydro to create an urban agriculture amenity with specific consideration of the following:

- **Public safety**
- **Restricted use in hydro ROW areas**
- **Operations and future use of hydro utility**

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IS THE FOOD SAFE?

Agriculture is considered a compatible use in hydro right-of-way (ROW) areas in British Columbia. Both crop production and livestock grazing are commonly practiced, and there are no risks associated with consuming food produced under high-voltage transmission lines.

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EXPOSURE TO ELECTROMAGNETIC FIELDS

This Hydro Right-of-Way in the City of Langley contains two 500 kv transmission lines and one 230 kv transmission line. Transmission power lines are an “extremely low frequency” source of electromagnetic fields (EMF). Other sources of exposure include household appliances, telecommunications infrastructure, and building wiring. Magnetic field strength is related to the amount of current and diminishes quickly when you move away from the source. Thoughtful site design and layout could mitigate unnecessary exposure to EMF when designing UA projects in hydro ROW areas.



SITE AMENITIES

| Amenity | Description |
|--------------------------|---|
| Community Farm | A farm where production, processing, distribution of food takes place and direct connections with communities are cultivated. This type of farm is often managed by a society or organization and community participation is both encouraged and facilitated. |
| Community Orchard | A collection of fruit bearing perennials plants in a public space. A community orchard can be made up of a collection of different perennial species (sometimes called a food forest) or be separated into distinct cropping systems (fruit tree, nut trees, berry bushes etc). |
| Ecological/Habitat Areas | Integrated into farming landscapes habitat areas increase wild biodiversity and provide opportunities to learn about ecology and food production. |
| Outdoor Classroom | Dedicated outdoor space for learning and educational programming that with space for creative play. |
| Pollinator Garden | Designed to increase habitat for wild pollinators (bees, butterflies etc).Plant species are specifically selected to attract pollinators and can be native or non-native. |
| School Garden | Designed and managed to connect directly to student learning objectives, and often located on or near school properties. These gardens should be designed at a child’s scale and balance education and production. |

THE SITE

LANGLEY URBAN AGRICULTURE PROJECT

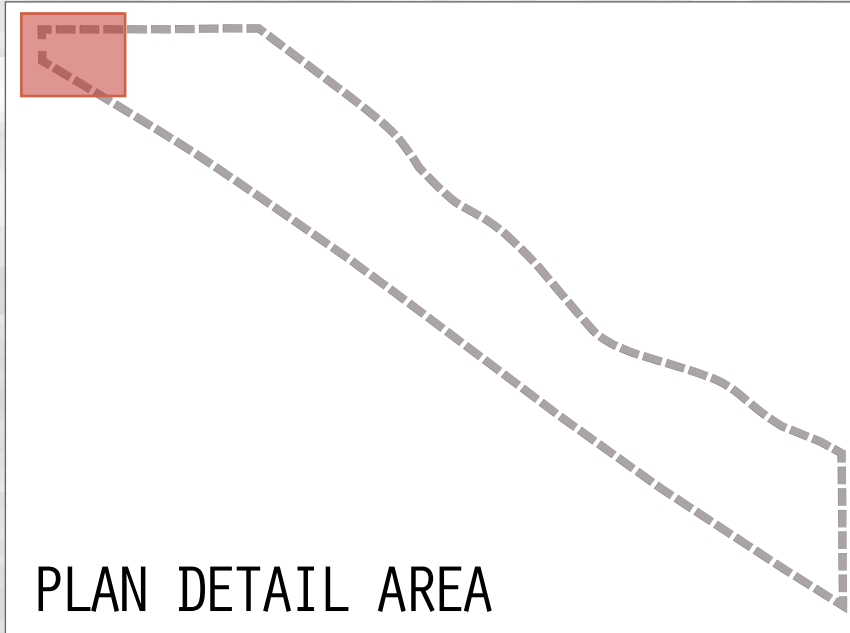
PARKING

To facilitate amenity use one area of the site will be made available for parking near the 200 St. entry point. This **PARKING** area will be designed to accommodate between 10 – 15 private vehicles and be designed with a permeable surface to limit run off.

The **SITE ENTRY** point will be designed to restrict vehicles turning left on to 200th street from the hydro ROW site. Additionally, a gate will restrict vehicle access during off hours.



Parking Detail



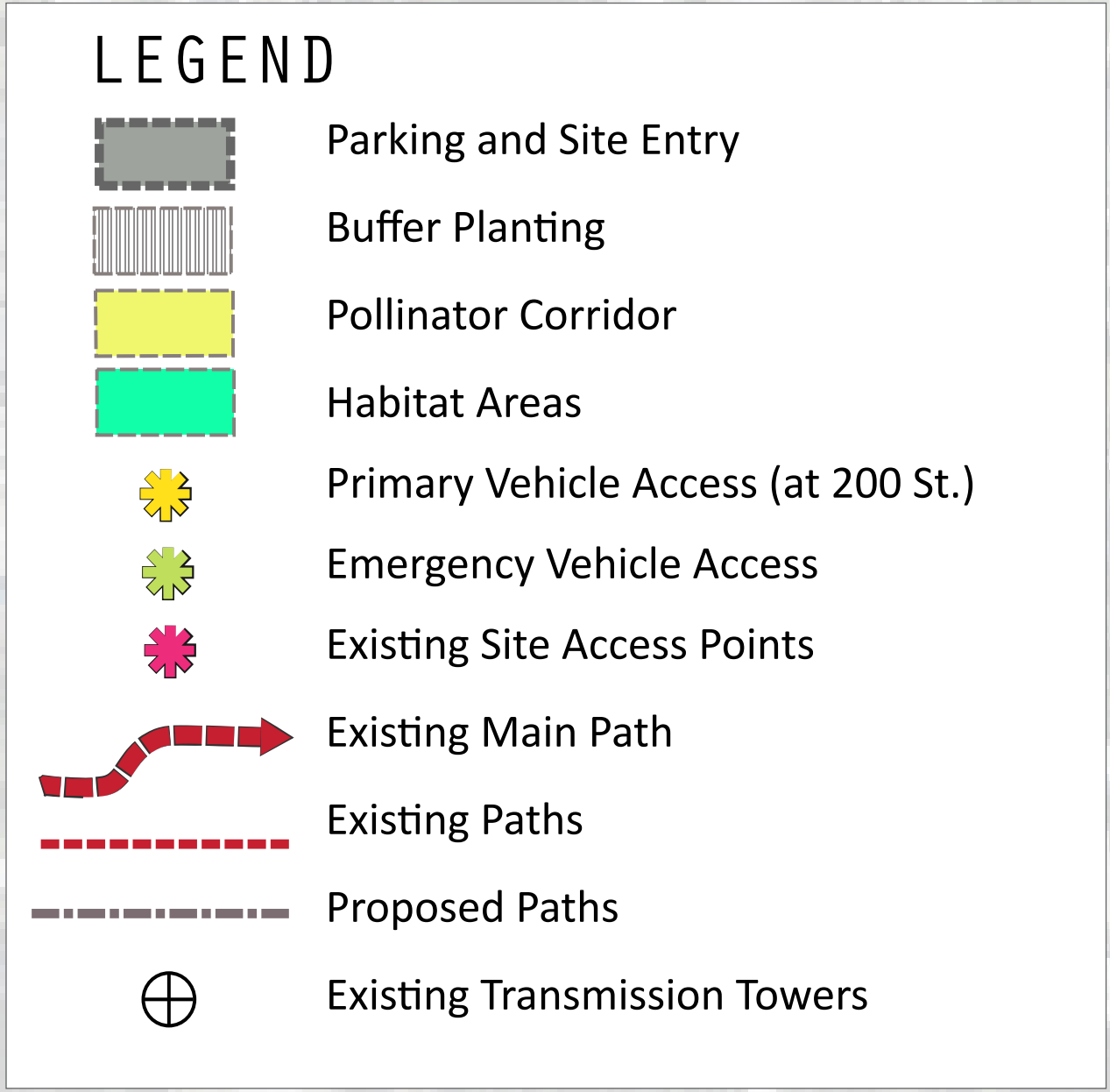
COMMON SITE FEATURES

Each option presented for the Langley Urban Agriculture Demonstration Project includes common features that are proposed to create a high quality community amenity.

These features create a framework for urban agriculture on the site. They aim to address concerns about the impact of site activity on the neighbourhood while enhancing the ecological integrity of the site and surrounding landscape.

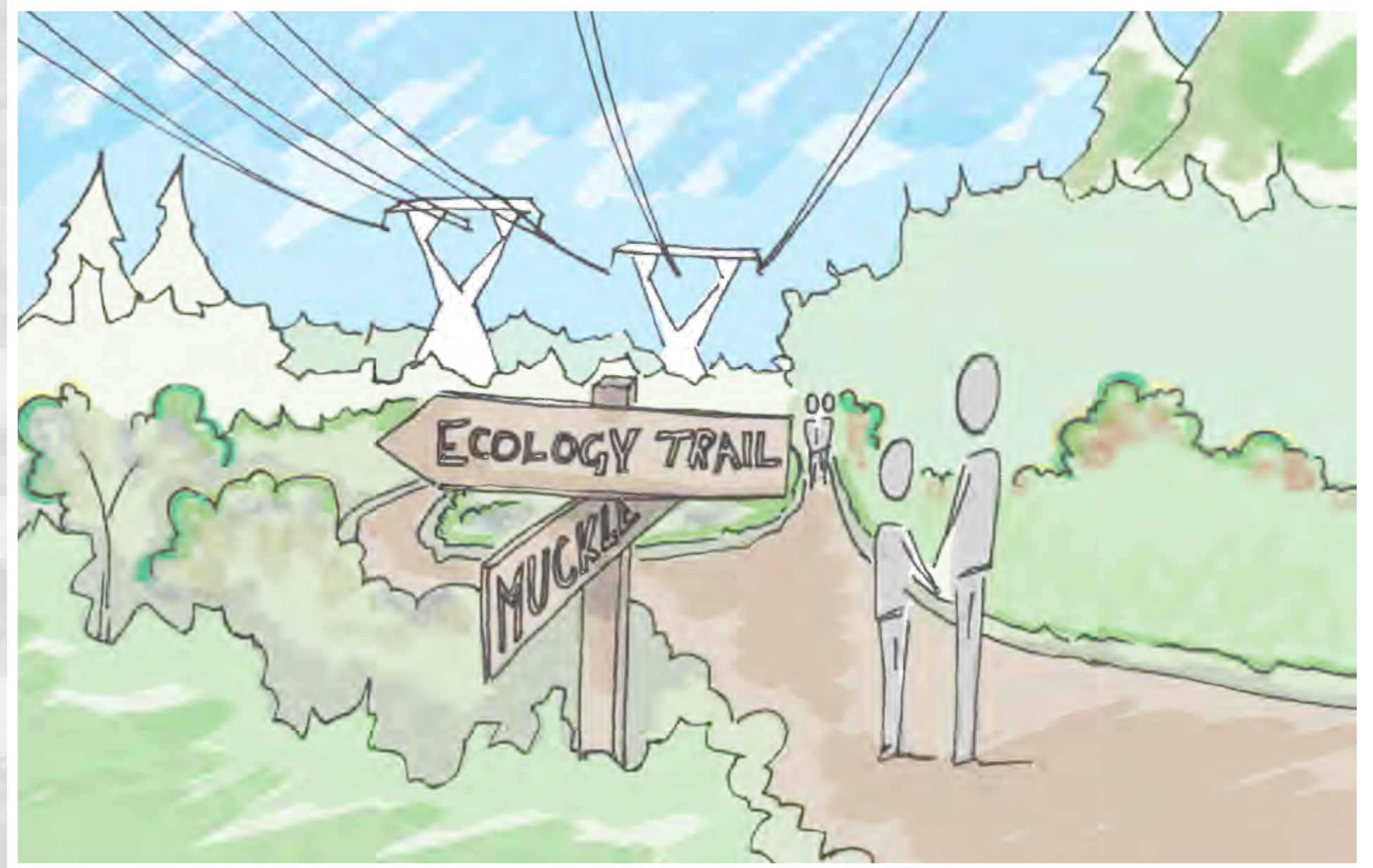
SIGNAGE

SIGNAGE will be integrated to facilitate use and to create educational opportunities. **SIGNAGE** can also be used to create a unique identity for the site and to describe the intent and function of urban agriculture amenities and to educate people about these unique features.



HABITAT AREAS

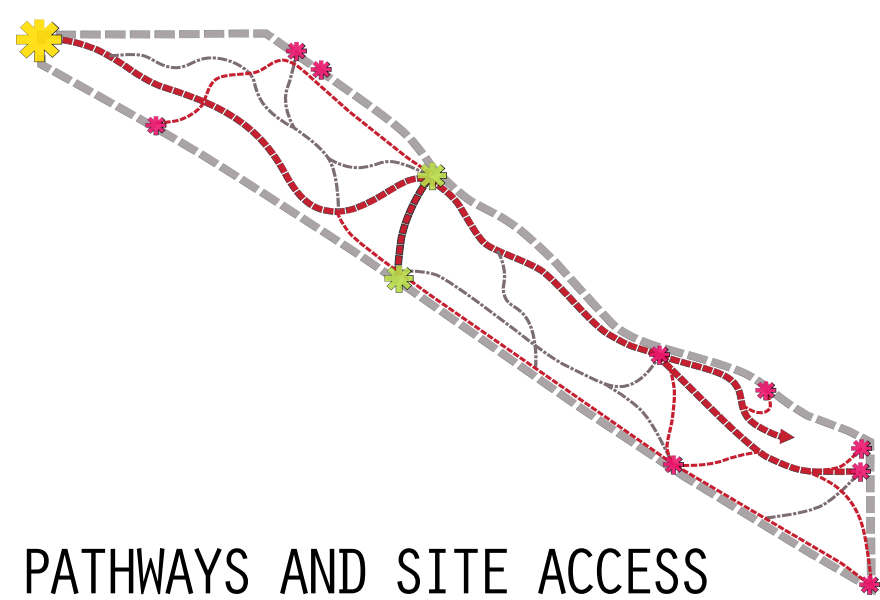
HABITAT AREAS have been proposed to create greater connectivity with existing greenways and natural features that surround the site, to enhance biodiversity and to manage invasive species on the site. This will include a creek restoration area adjacent to Muckle Creek, meadow landscapes, and native planting areas.



Perspective of Habitat Area and Pathways

PATHWAYS & CIRCULATION

As this site is well used by surrounding neighbours and community members an important part of the design is to maintain and enhance circulation on the site. All existing **PATHWAYS** will be maintained, and in some cases resurfaced to facilitate year round use. Additionally, paths will be added to create connections between amenities and a better sense of connection across the site. Most **PATHWAYS** will be designed to accommodate pedestrians with some accessible to cyclists as well.



BUFFER PLANTINGS

BUFFER PLANTINGS are proposed to create a buffer between site activity and surrounding residents. They also help to enhance ecological diversity through the integration of native and non-invasive plants in areas where urban agriculture is not proposed, and to provide buffers around hydro towers and utility works.

BUFFER PLANTINGS on the site will also help to mitigate the ecological impacts of invasive species (including Himalayan Blackberry and Scotch Broom) while providing a habitat for birds, pollinators and other wildlife.

BUFFER PLANTINGS will feature species native to Pacific Northwest ecosystems and will be used to manage areas of the site where invasive species are out competing native plants. This will also provide more appropriate, diverse and manageable naturalized areas to be enjoyed by people and wildlife.

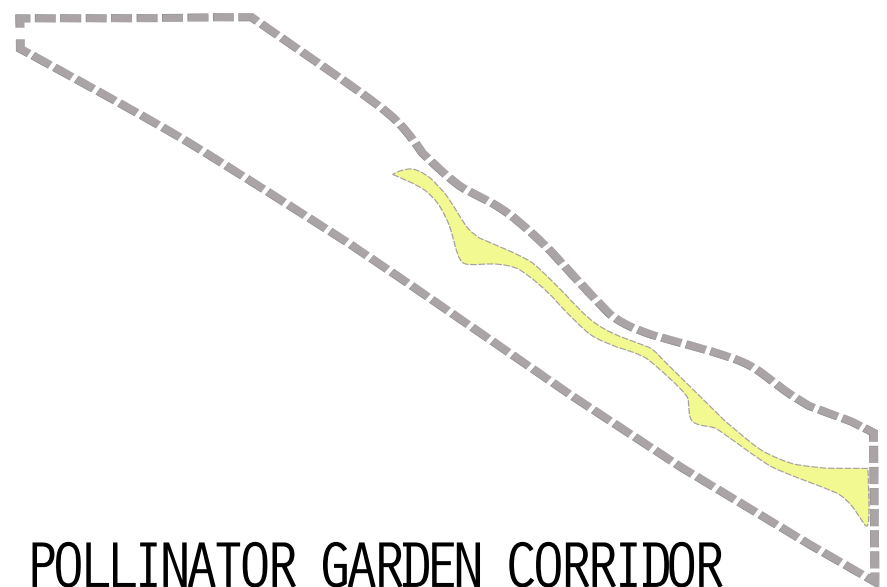


SAMPLE BUFFER PLANTING SPECIES LIST

- Red Osier Dogwood
- Flowering Currant
- Pacific Ninebark
- Serviceberry
- Highbush Cranberry
- Pacific Rododendron
- Red Columbine
- Pacific Bleeding Heart
- Pacific Aster
- Fireweed

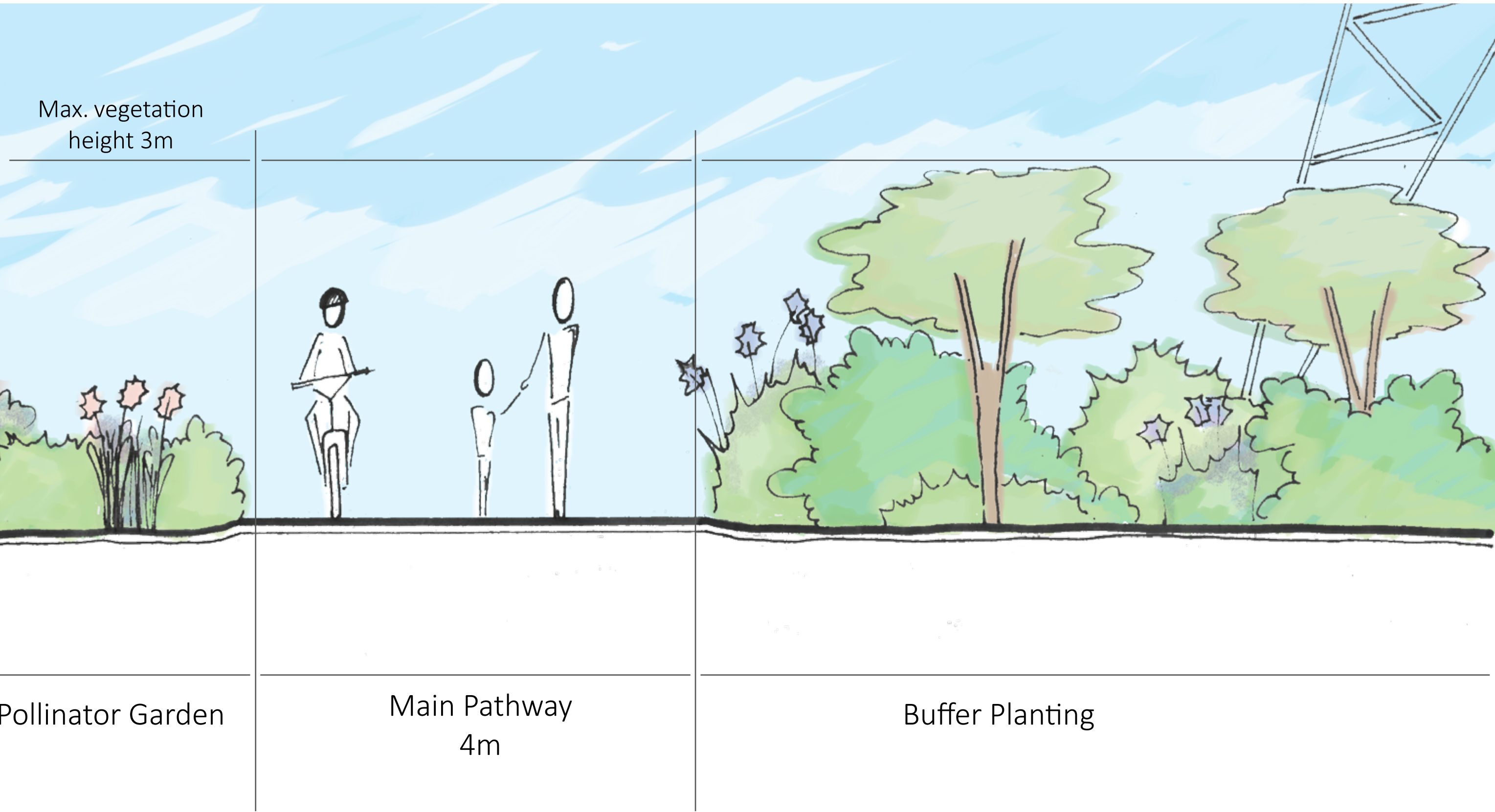
POLLINATOR GARDEN CORRIDOR

POLLINATOR GARDENS are landscapes specifically designed to attract wild pollinators (bees, birds and butterflies) by providing food and habitat areas. They include flowering and fragrant plants and are often designed to naturalized meadows and hedgerows. It is also common for **POLLINATOR GARDENS** to include plants that are native to the surrounding area.



SAMPLE POLLINATOR GARDEN SPECIES LIST

| NATIVE SPECIES | NON -NATIVE SPECIES |
|--|---|
| <ul style="list-style-type: none">• Fireweed• Nootka Rose• Dull Oregon Grape• Red Columbine• Wild Strawberry• Pacific Aster | <ul style="list-style-type: none">• Dwarf Rose• Milkweed• Black Eyed Susan• Sunflower• Miniature Lupine |

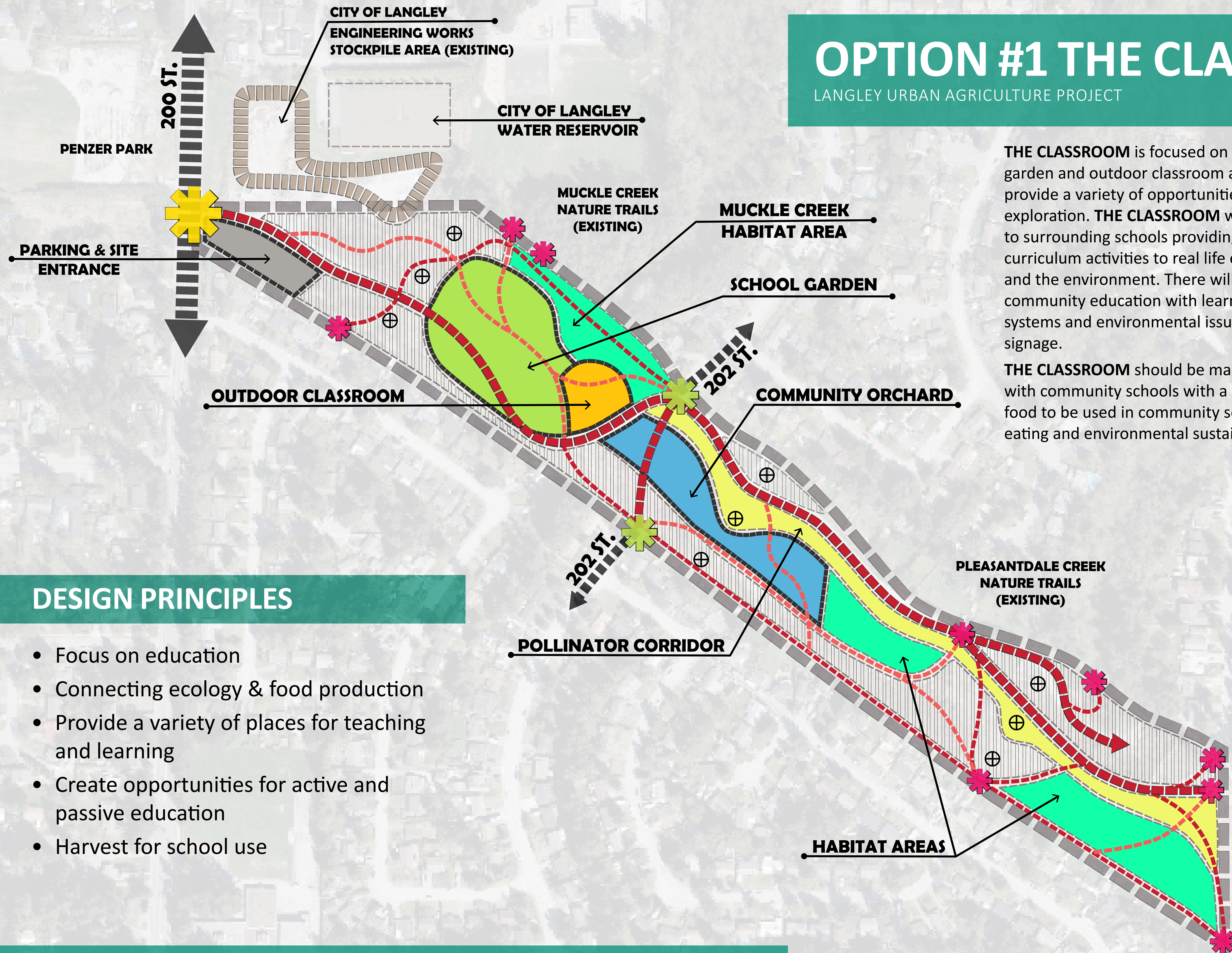


Detail of Buffer Planting, Pathways and Pollinator Garden Corridor

OPTION #1 THE CLASSROOM

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BOARD #6



THE CLASSROOM is focused on education with a school garden and outdoor classroom as core amenities that provide a variety of opportunities for learning and exploration. **THE CLASSROOM** will be closely connected to surrounding schools providing opportunities to link curriculum activities to real life experiences in agriculture and the environment. There will also be an emphasis on community education with learning about production systems and environmental issues through interpretive signage.

THE CLASSROOM should be managed in close partnership with community schools with a focus on the production of food to be used in community schools to promote healthy eating and environmental sustainability.

DESIGN PRINCIPLES

- Focus on education
- Connecting ecology & food production
- Provide a variety of places for teaching and learning
- Create opportunities for active and passive education
- Harvest for school use

OPTION #1 THE CLASSROOM

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BOARD #7



- ① School Garden
- ② Outdoor Classroom
- ③ Community Orchard
- ④ Muckle Creek Habitat Area
- ⑤ Buffer Planting Areas

COMMUNITY ORCHARD



Design: The community orchard is dedicated to perennial crop production and features; fruit trees, nut trees and berry bushes.

Species could include:

- **Fruit:** apples, pears, plums, cherries, apricots, Asian pears
- **Nuts:** hazelnuts, walnuts
- **Berries:** raspberry, currant, blackberry saskatoon, blueberry, salmonberry

SCHOOL GARDEN



Design: The school is a garden area that prioritizes educational opportunities. The landscape will be designed to accommodate children, be safe, and encourage creative play. The garden is located in an area of the site that can be easily accessible from the 200 St. entrance and directly from nearby schools.

Management: The school garden will be managed through a partnership with neighbouring schools. Work with the Langley School District may also provide additional support for programming, site design and management.

The school garden will focus on producing food that can be consumed in schools and promote health eating.



Perspective of School Garden

OUTDOOR CLASSROOM



Design: The outdoor classroom is a laboratory for learning about food production and the environment. It will also feature areas dedicated to creative play. It will include elements like raised beds and flexible seating to allow for group instruction and exploration. It is also located in close proximity to habitat areas and the community orchard where education can also be facilitated.

Management: The outdoor classroom will be managed as a component of the school garden.

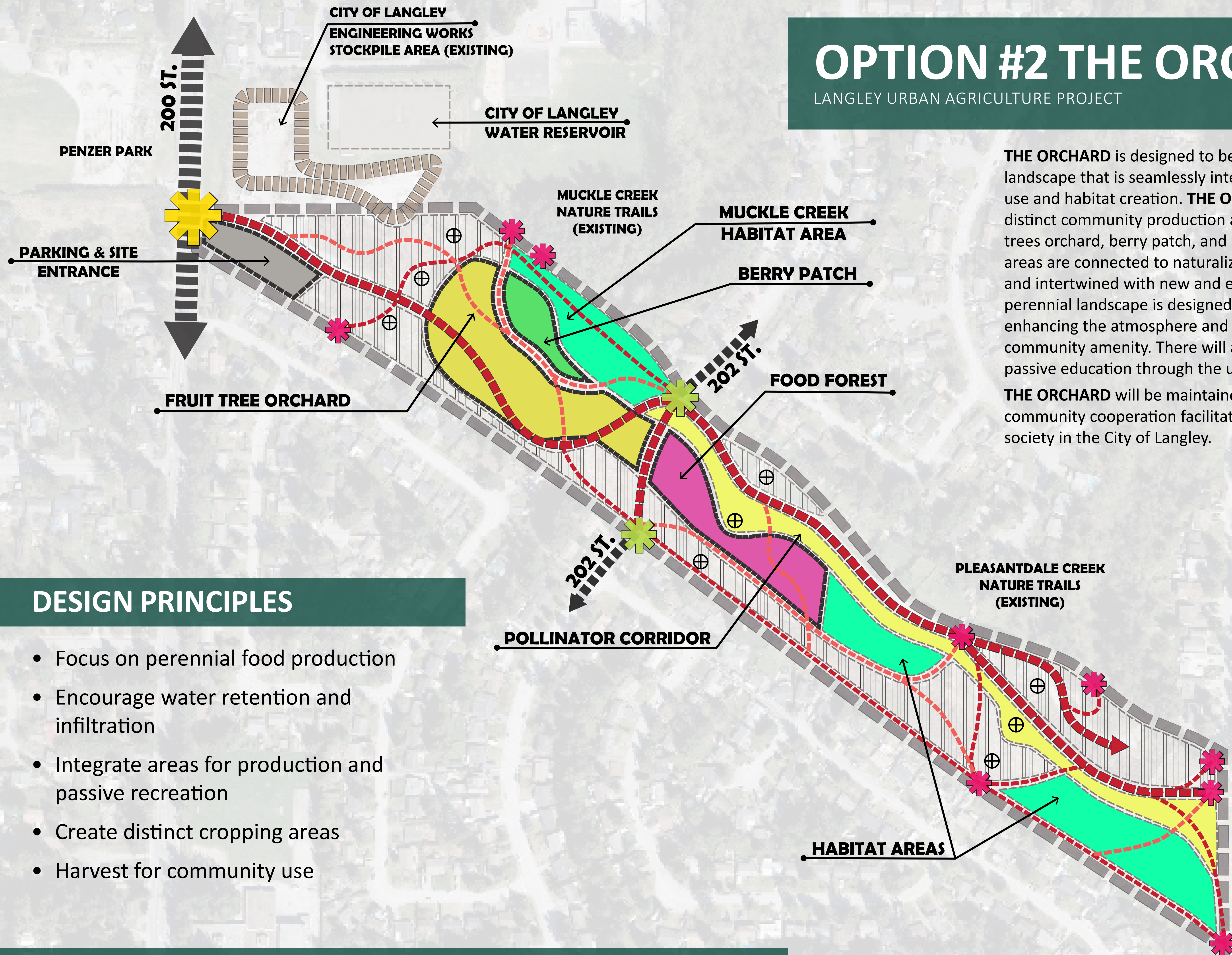


Perspective of Outdoor Classroom

OPTION #2 THE ORCHARD

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BOARD #8



THE ORCHARD is designed to be a perennial food producing landscape that is seamlessly integrated with community use and habitat creation. **THE ORCHARD** features three distinct community production areas including a fruit trees orchard, berry patch, and a food forest. These three areas are connected to naturalized areas on the site and intertwined with new and existing pathways. This perennial landscape is designed to be productive while also enhancing the atmosphere and quality of the space as a community amenity. There will also be opportunities for passive education through the use of interpretive signage. **THE ORCHARD** will be maintained and managed through community cooperation facilitated by an urban agriculture society in the City of Langley.

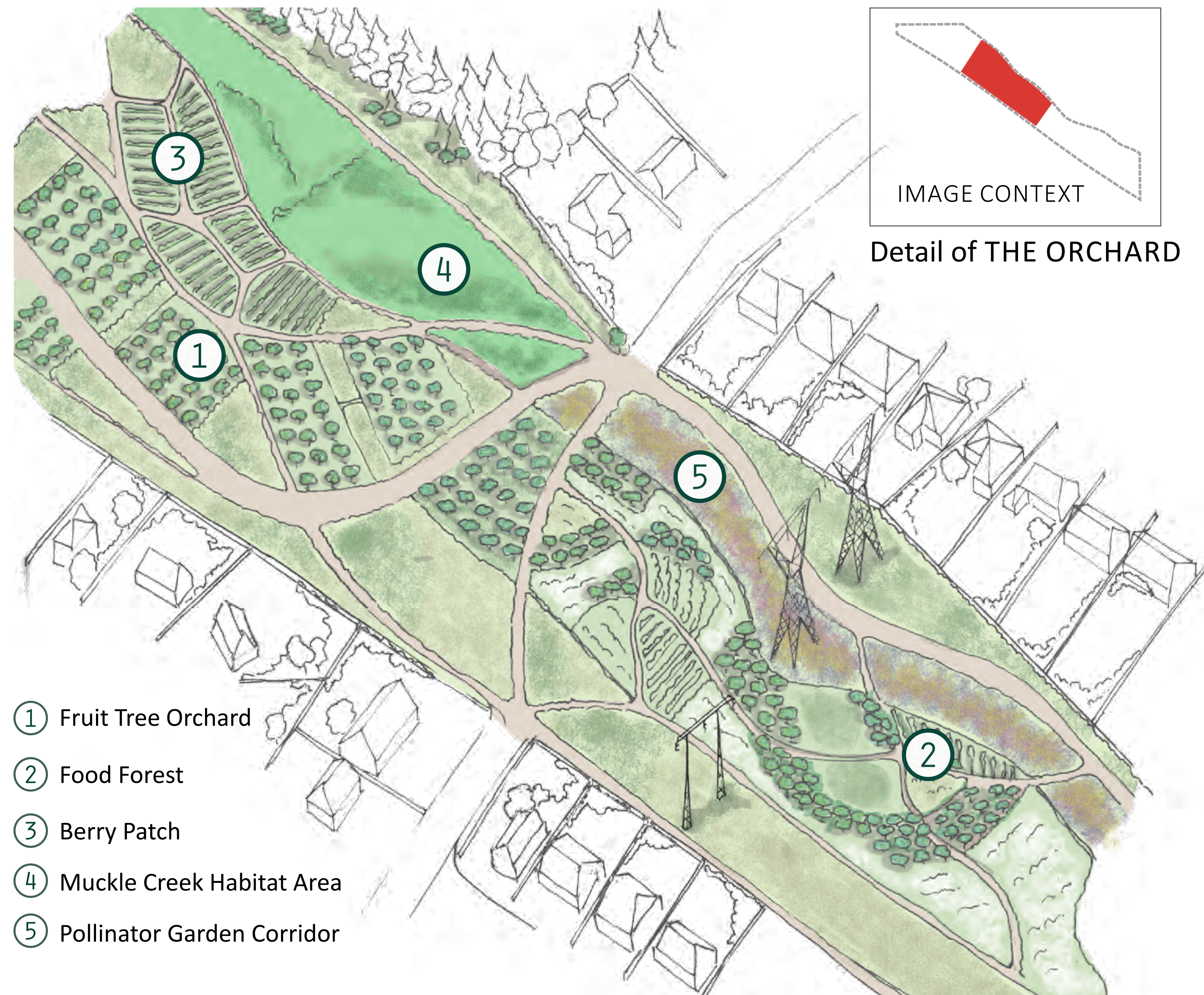
DESIGN PRINCIPLES

- Focus on perennial food production
- Encourage water retention and infiltration
- Integrate areas for production and passive recreation
- Create distinct cropping areas
- Harvest for community use

OPTION #2 THE ORCHARD

LANGLEY URBAN AGRICULTURE PROJECT

BOARD #9



Detail of THE ORCHARD

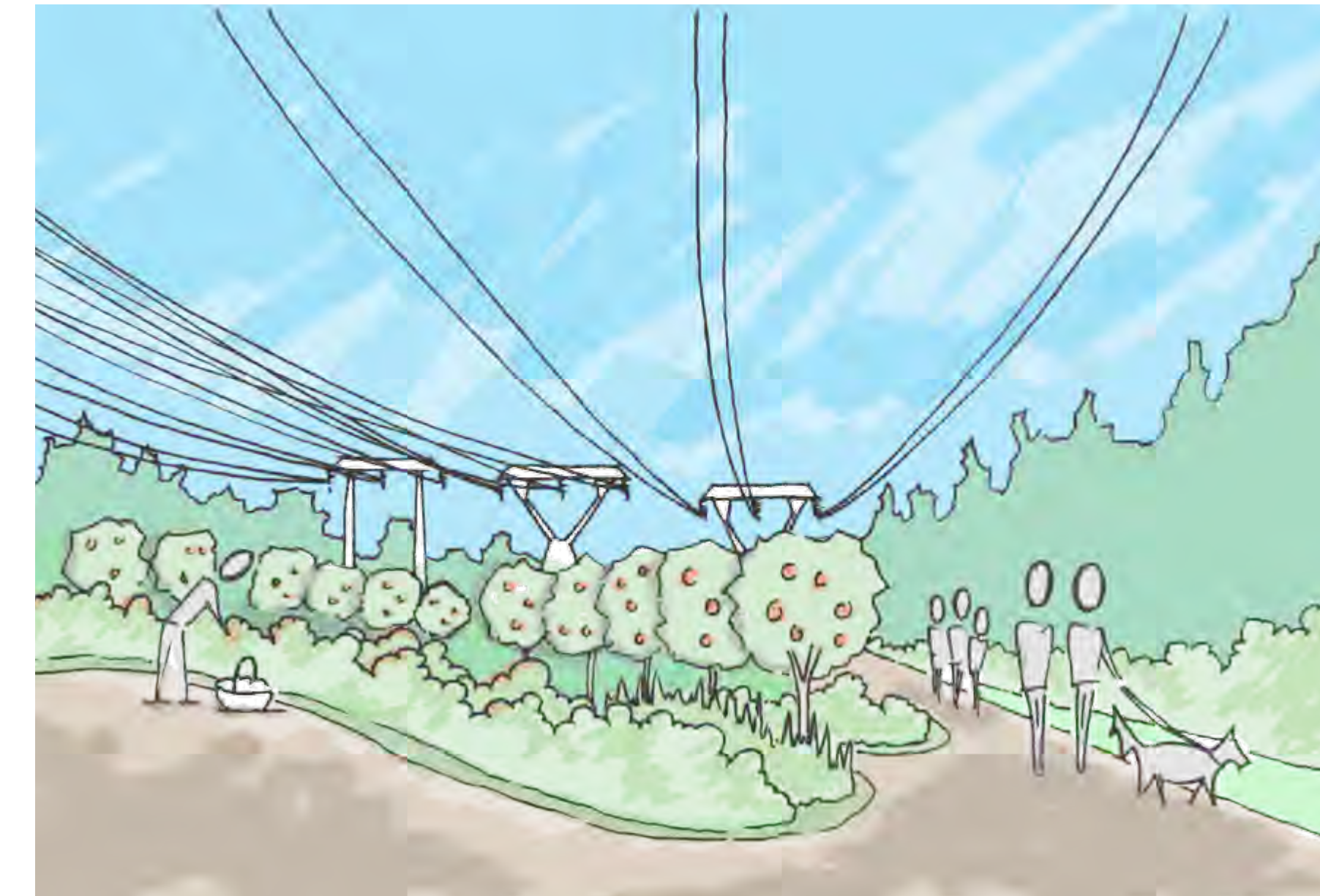
- ① Fruit Tree Orchard
- ② Food Forest
- ③ Berry Patch
- ④ Muckle Creek Habitat Area
- ⑤ Pollinator Garden Corridor

BERRY PATCH



Design: The berry patch is a distinct cropping area where different varieties of berries will be cultivated. Varieties will be selected based on their ability to thrive in the climatic and soil conditions of the site. In addition to berries harvested for community use, this cropping area will provide habitat and food for wildlife and pollinators.

FRUIT TREE ORCHARD



Perspective of Fruit Tree Orchard

Design: The fruit tree orchard is a distinct cropping area that features varieties of fruit trees that will thrive in the climatic conditions of the local area, and within the constraints of the site. The design will encourage community cultivation and create a beautiful landscape to be enjoyed by the community. Areas for production will also be designed for circulation and to be fully accessible for public use.

Management: The fruit tree orchard is managed and maintained cooperatively as a community amenity. Maintenance, harvesting and tree care should be coordinated by a central organization. Community participation in these activities should be facilitated whenever possible. There will also be potential to use the site for education about perennial food production in the local area and region.

FOOD FOREST



Perspective of Food Forest

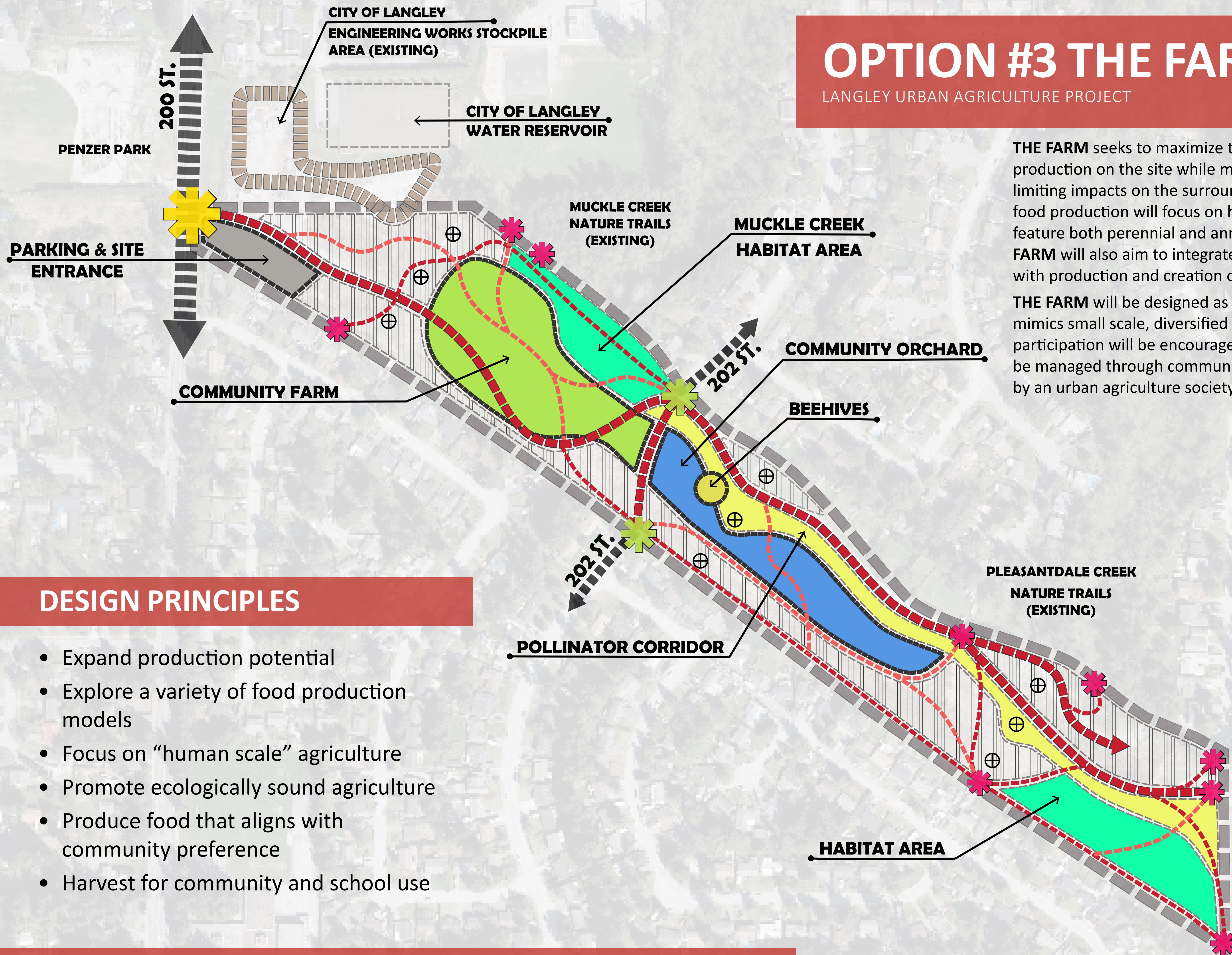
Design: The food forest is a perennial landscape of both edible and medicinal plants. It is intended to mimic natural forest ecosystems to create a sustainable landscape, increase biodiversity and provide opportunities for food production. The food forest will include a variety of trees, shrubs, herbs and flowering plants. Areas for production will also be designed for circulation and to be fully accessible for public use.

Management: The food forest is designed as a relatively low maintenance amenity but will require seasonal attention. Harvesting throughout the season is also required and could be facilitated by an urban agriculture society or local non-profit groups.

OPTION #3 THE FARM

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BOARD #10



THE FARM seeks to maximize the potential for food production on the site while maintaining current uses and limiting impacts on the surrounding neighbourhood. All food production will focus on human scale agriculture and feature both perennial and annual cropping systems. **THE FARM** will also aim to integrate community use of the site with production and creation of wildlife habitat.

THE FARM will be designed as a productive landscape that mimics small scale, diversified farming systems. Community participation will be encouraged and farm operations will be managed through community cooperation coordinated by an urban agriculture society in the City of Langley.

DESIGN PRINCIPLES

- Expand production potential
- Explore a variety of food production models
- Focus on “human scale” agriculture
- Promote ecologically sound agriculture
- Produce food that aligns with community preference
- Harvest for community and school use

OPTION #3 THE FARM

LANGLEY URBAN AGRICULTURE PROJECT

BOARD #11



IMAGE CONTEXT
Detail of THE FARM

- ① Community Farm
- ② Muckle Creek Habitat Area
- ③ Buffer Planting Area

BEEHIVES

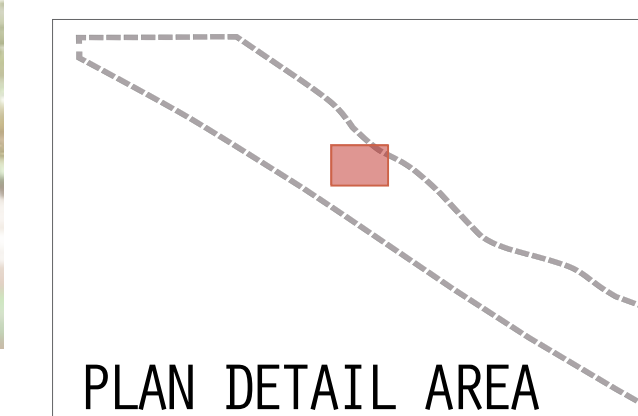
Detail of Beehives



The beehives will be a concentrated area for the production of honey and education about bee health and the environment. This will be linked to other amenities in THE FARM and should be managed as a production component of this design.



- ① Beehives
- ② Pollinator Garden
- ③ Community Farm
- ④ Community Orchard



COMMUNITY FARM



Design: The community farm is designed to connect the community to agriculture. The farm will cultivate both perennial and annual crops using a variety of production systems. The farm will focus on human scale agriculture using ecologically sound methods. Areas for production will also be designed for circulation and to be fully accessible for public use.

Management: The community farm will be managed cooperatively and participation from the community will be encouraged and facilitated through an urban agriculture society. This society will be responsible for farm operations and for managing relationships with the community.

COMMUNITY ORCHARD



Design: The community orchard is dedicated to perennial crop production and features; fruit and nut trees and berry bushes. Areas for production will also be designed for circulation and to be fully accessible for public use.

Management: The community orchard is managed and maintained cooperatively as a community amenity. Maintenance, harvesting and tree care will be coordinated by an urban agriculture society. Community participation in these activities should be facilitated whenever possible. There will also be potential to use the community orchard as a site for education about perennial food production in the local area and region.

