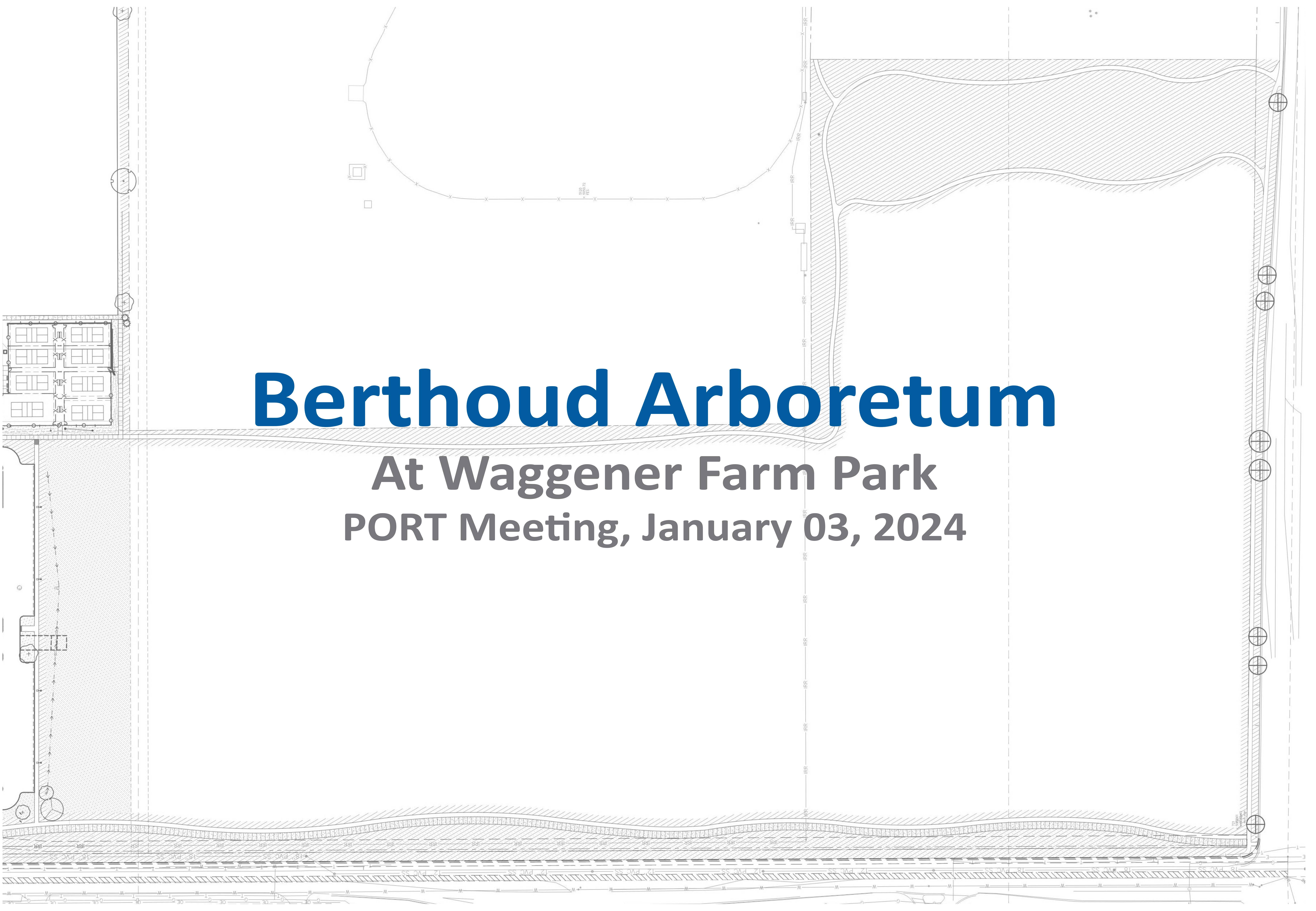


The background of the slide is a detailed landscape architectural plan for the Berthoud Arboretum. The plan shows a large rectangular area with various features: a building footprint on the left, a curved path or stream at the top, and a series of circular features (possibly trees or plantings) along the right and bottom edges. The plan is drawn with fine lines and includes various annotations and symbols typical of such drawings.

Berthoud Arboretum

At Waggener Farm Park
PORT Meeting, January 03, 2024

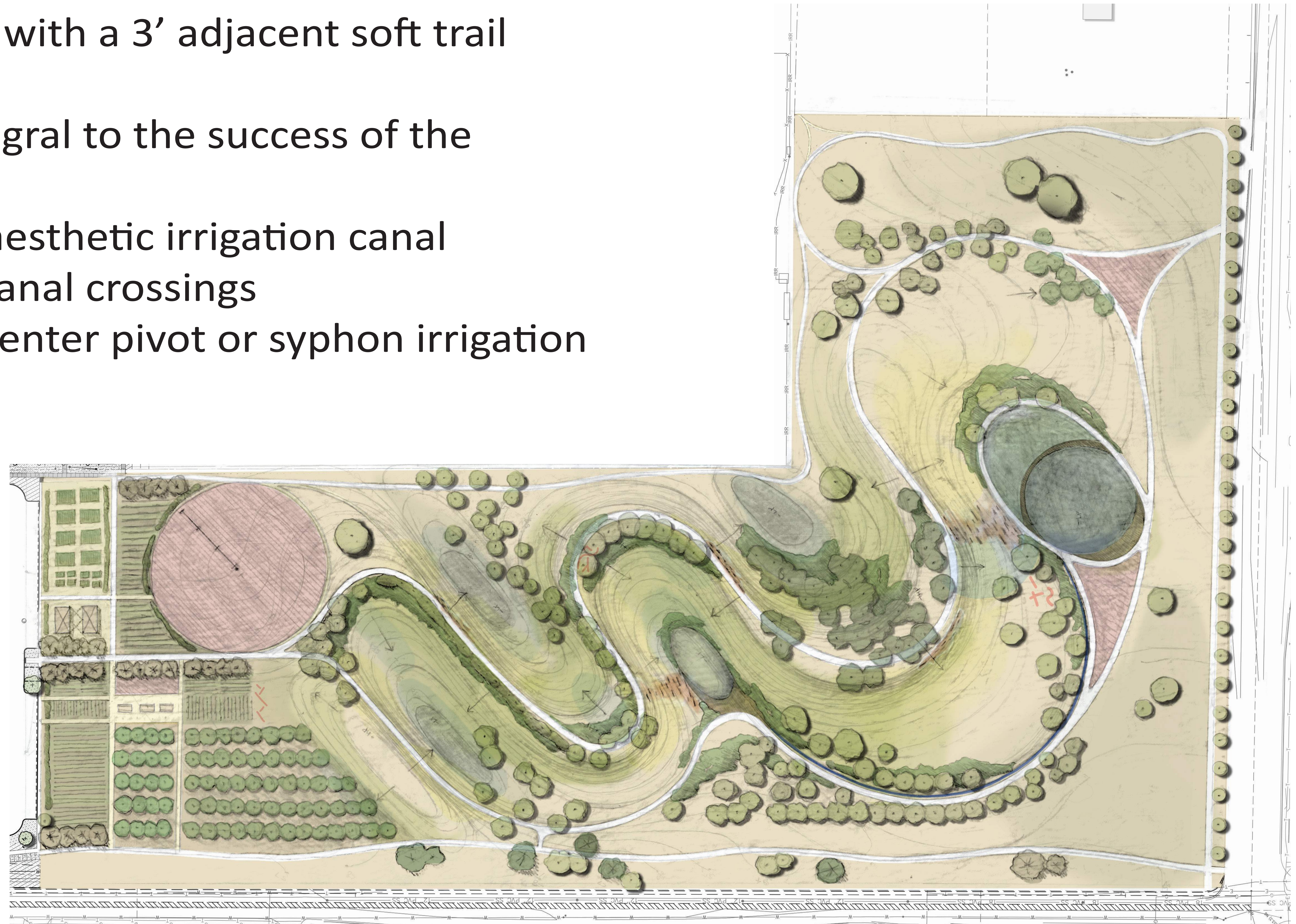
What We Heard at the July 19th Joint Committee Meeting

- Design concept and proposed layout was acceptable
- Refine the grading to minimize fill, create a, microclimates and keep the view corridor open
- Continue the agricultural theme established in the north side of the park
- Native and low water plants and pollinator habitat is encouraged



What We Heard at the July 19th Joint Committee Meeting

- Preference for the memorial to be located close to the north entrance to the arboretum
- 8' wide primary trail with a 3' adjacent soft trail
- Irrigation will be integral to the success of the arboretum
 - Liked the natural aesthetic irrigation canal concept, consider canal crossings
 - Lean on historical center pivot or syphon irrigation practices



What We Heard After the September PORT Meeting

- Trail layout and hierarchy was acceptable
- The Tree Nursery was visible from Berthoud Parkway/ HWY 17, can it be relocated?
- Is there interest in a community garden?
- Right size the lawn in the Community Hub to accommodate 200 person events. Enclose the lawn/event space for additional privacy
- Maintain the buffer between the existing pickleball courts and the garden



Plan Layout

Legend

- ①

Northern Community Hub
- ②

Irrigation Pond
~0.5-acre at 5'-10' deep, observation deck
- ③

Irrigation Canal
~1' deep and 2-3' wide
- ④

Stone Feature in Irrigation Canal
- ⑤

Ped Bridge Over Irrigation Canal
- ⑥

Nature Play
- ⑦

Art Opportunity
- ⑧

High Point Overlook
- ⑨

Primary Trail
- ⑩

Secondary Trail
- ⑪

Fishing/Observation Deck
- ⑫

Riverine Trees and Shrubs
willow, hackberry, cottonwood (farther from trails)
- ⑬

Pine Forest
- ⑭

Specimen Tree
cottonwood, fruiting, linden, oak
- ⑮

Gamble Oak Hillside
- ⑯

Conifer and Evergreens
- ⑰

Trees and Shrubs - Native
serviceberry, hackberry, hawthorn
- ⑱

Native Prairie
- ⑲

Wildflower Meadow
sunflower, clover, seed, mowable
- ⑳

Street Tree Planting
- ㉑

Fragrance Walk
linden, fruiting, catalpa
- ㉒

Maples
- ㉓

Oaks
- ㉔

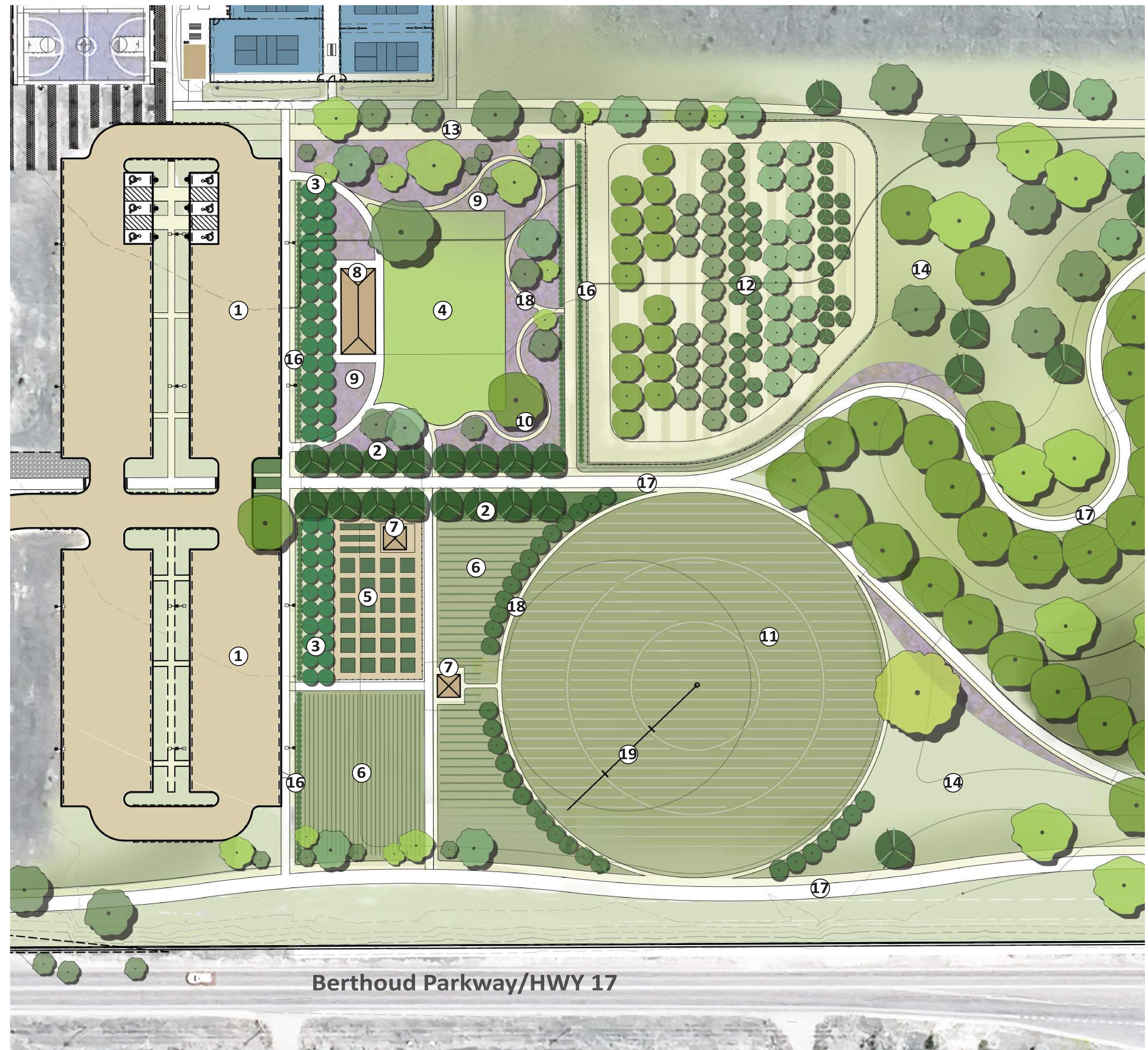
Shrub Planting



Plan Layout - North Community Hub

Legend

- ① Existing Gravel Parking Lot
- ② Pine Allee
- ③ Fruit Orchard
~0.15-acres, fruit & flower trees
- ④ Turf Lawn
~0.3-acre, programmable space, event opportunity
- ⑤ Community Garden
~0.15-acres, compost, community beds, picnic, shade, solar
- ⑥ Community Plots
~0.65-acres, pumpkin patch, sunflower, lavender
- ⑦ Picnic Shelter & Restroom
- ⑧ Picnic Shelter
- ⑨ Perennial/Native Garden
~0.5-acres, native plant display, espalier
- ⑩ Memorial Opportunity
- ⑪ Crop Circle Meadow
~1.3-acres, sunflower, clover, seed, goats, mowable, center-pivot irrigation?, mowed path perimeter
- ⑫ Tree Nursery
~1-acre, always changing, different sized trees, experimental, possible Miyawaki Forest, split rail fence around the exterior
- ⑬ Tree Nursery Access Path
- ⑭ Native Seed Area
- ⑮ Speciman Tree
- ⑯ Windbreak/Hedgerow
- ⑰ Primary Path
- ⑱ Secondary Path/Access Path
- ⑲ Intrepretative Center Pivot Irrigation Relic
art or swing structure opportunity



Feature Imagery



Trails Diagram

Legend

-  **Primary Trail**
8' Wide Concrete Trail, 3' Wide Attached Crusher Fines
-  **Secondary Trail**
Concrete Trail, Width Varies From 6' To 10'
-  **Tertiary Trail and Access/Maintenance Path**
Crusher Fines Trail, Width Varies from 3' to 6'



Trails



Primary Trail

- 8’ Wide Concrete Path With A 3’ Wide Attached Crusher Fines Path



Secondary Trail

- 3’ Wide Attached Crusher Fines Path

Views of the Arboretum

- 1 - Looking Southeast
- 2 - Community Hub/Community Garden
- 3 - Nature Play and Irrigation Canal Crossing
- 4 - Looking Northwest
- 5 - Community Lawn
- 6 - Pine Forest and Crop Circle



View 1 - Looking Southeast



View 2 - Community Hub, Community Garden



View 3 - Nature Play and Irrigation Canal Crossing



View 4 - Looking Northwest



View 5 - Community Lawn



View 6 - Pine Forest and Crop Circle



Irrigation Canal



Irrigation Canal

“Natural” Canal - Adjacent to the Trail



Irrigation Canal

Stone Feature - Canal Adjacent to the Trail



Irrigation Canal

“Natural” Canal Separate from the Trail



Tree List

1st phase: Initial installation – Tree varieties that are ‘tried and true’ to Colorado’s climate. These will be trees able to stand every kind of weather that Colorado throws at them, and hopefully start to establish microclimates for other more sensitive future trees.

Coniferous trees-	
With water and soil considerations taken into account, these trees might be good to develop a more protected area from high winds at the site.	
<i>Abies concolor</i> -White fir	Needs more moisture and well drained soil
<i>Juniperus scopulorum</i> – Rocky Mountain Juniper	Low water requirements
<i>Picea pungens</i> – Colorado Blue Spruce <i>Picea pungens glauca</i> – ‘Fastigiata’ , ‘Colorado Weeping’ , ‘Bakeri’	Med-high water requirements
<i>Pinus aristate</i> – Bristlecone pine	Low water requirements
<i>Pinus edulis</i> – Pinyon pine	Low water requirements
<i>Pinus nigra</i> – Austrian pine	Average water requirements
<i>Pinus ponderosa</i> – Ponderosa pine	Prefers drier sites
Deciduous Trees-	
Some of these trees might require some protection to aid in their establishment and development. Most trees will be hardy enough to withstand the site conditions.	
Acer- Maples	
<i>Acer gaudinatum</i> – Big Tooth Maple	Smaller, shrub type maple, 35-50 tall. Drier soil
<i>Acer tataricum</i> – Tatarian Maple, ‘Hot Wings®’	Smaller, shrub type maple, Drier soil
Aesculus- Buckeye/Horsechestnut	
<i>Aesculus hippocastanum</i> - Common Horsechestnut	Medium water requirements, flowers in spring.
Catalpa – Catalpas	
<i>Catalpa speciosa</i>	Low to medium water, flowering, seed pods
Celtis - Hackberry	
<i>Celtis occidentalis</i>	Low to medium water
Crataegus – Hawthorn	
<i>Crataegus crusgalli</i> – Thornless Cockspur	Low to medium water
<i>Crataegus ambigua</i> – Russian Hawthorn	Low water
<i>Crataegus phaenopyrum</i> – Washington Hawthorn	Medium water
<i>Crataegus viridis</i> - ‘Winter King’	Low to medium water
<i>Crataegus x mordenensis</i> – ‘Toba’	Medium water
Gleditsia – Honeylocust	
<i>Gleditsia triacanthos v inermis</i> – ‘Imperial’, ‘Shademaster’, ‘Skyline’	
Gymnocladus- Kentucky Coffee Tree	
<i>Gymnocladus dioicus</i> - Kentucky Coffee	Low to medium water
<i>Gymnocladus dioicus</i> – ‘Espresso’	Low to medium water
Malus- Crabapple	
<i>Malus</i> – ‘Spring snow’	Low to medium
Populus – Poplars	
<i>Populus sargentii</i> – Plains Cottonwood	Medium to high water *even though these trees can be quite big and dangerous as they grow old I think it would be a good native to have at the arboretum. Preferably in the middle of the park to reduce the possibility of dropping branches over a sidewalk or road.

<i>Populus x acuminata</i> – ‘Lanceleaf’	Medium water
Quercus- Oaks	
	I would like to see a lot of oaks planted at the start of the park as they take a while to start to grow but will be very hardy and stately when they mature.
<i>Quercus gambelii</i> - Gambel oak	Small tree/shrub like oak – low water requirement
<i>Quercus macrocarpa</i> -Bur oak	Low to medium water
<i>Quercus muehlenbergii</i> - Chinkapin oak	Low to medium water
<i>Quercus robur</i> - English oak	Low to medium water
<i>Quercus undulata</i> - Wavyleak oak	Low water
<i>Quercus alba x robur</i> – Crimson Spire oak	Low to medium water
Syringa – Tree Lilac	
<i>Syringa reticulata</i> – Japanese tree lilac	Low to medium Small flowering tree
Tilia – Lindens	
<i>Tilia americana</i> – American Linden	Medium water
<i>Tilia cordata</i> – Littleleaf Linden	Medium water
<i>Tilia tomentosa</i> – Silver Linden	Medium water
<i>Tilia x flavescens</i> – ‘Glenleven’	Medium water
<i>Tilia x euchlora</i> – ‘Redmond’	Medium water

What is the Cost?

Site Preperation and Earthwork • Surveying • Site and Soil Prep • Import Fill Material*	\$1,500,000
Utilities • Storm Utilities • Electrical for the Structures and Irrigation	\$150,000
Pavements and Walks • Concrete Trails and Walks • Crusher Fines Trails	\$800,000
Landscape • Lawn • Native Seed • Shrubs and Grasses • Stone Boulders	\$500,000
Irrigation • Irrigation Canal • Irrigation Pond and Pump House • Irrigation Throughout the Site	\$1,500,000
Site Furnishings + Play • Picnic Tables and Benches • Bicycle Racks • Trash, Recycling and Pet Waste Stations • Nature Play Structures • Center Pivot Structure	\$275,000
Structures • Dock at Irrigation Pond • Pedestrian Bridges • Community Garden Raised Beds • Picnic Shelters (2) • Picnic Shelter and Restroom (1)	\$750,000
Hard CostsTotal:	\$5,475,000
Contingency (15%):	\$547,500
Grand Total:	\$6,022,500



*Assumes all soil to be imported fill material

A photograph of a row of trees with vibrant autumn foliage in shades of yellow, orange, and red. The trees are set against a clear blue sky. The text "Thank You" is centered over the image.

Thank You