

Proposal

Greenview Park Improvements

- Wind / Leaf Barriers
 - Rain Garden
- Entry Sign / Focal Point
 - Shade Garden



Prepared by
Pequannock Environmental
Commission

T. Newman, Chair

Ver. 20250908

LOCATION MAP OF PROPOSED IMPROVEMENTS

PLANTING PROJECTS

Phase 1

★ 1 Shrub Barrier (at Pond)

★ 2 Grass Barrier (at Fields)

Phase 2

★ 3 Rain Garden

★ 4 Entry/Focal-Point Planting

★ 5 Shade Garden

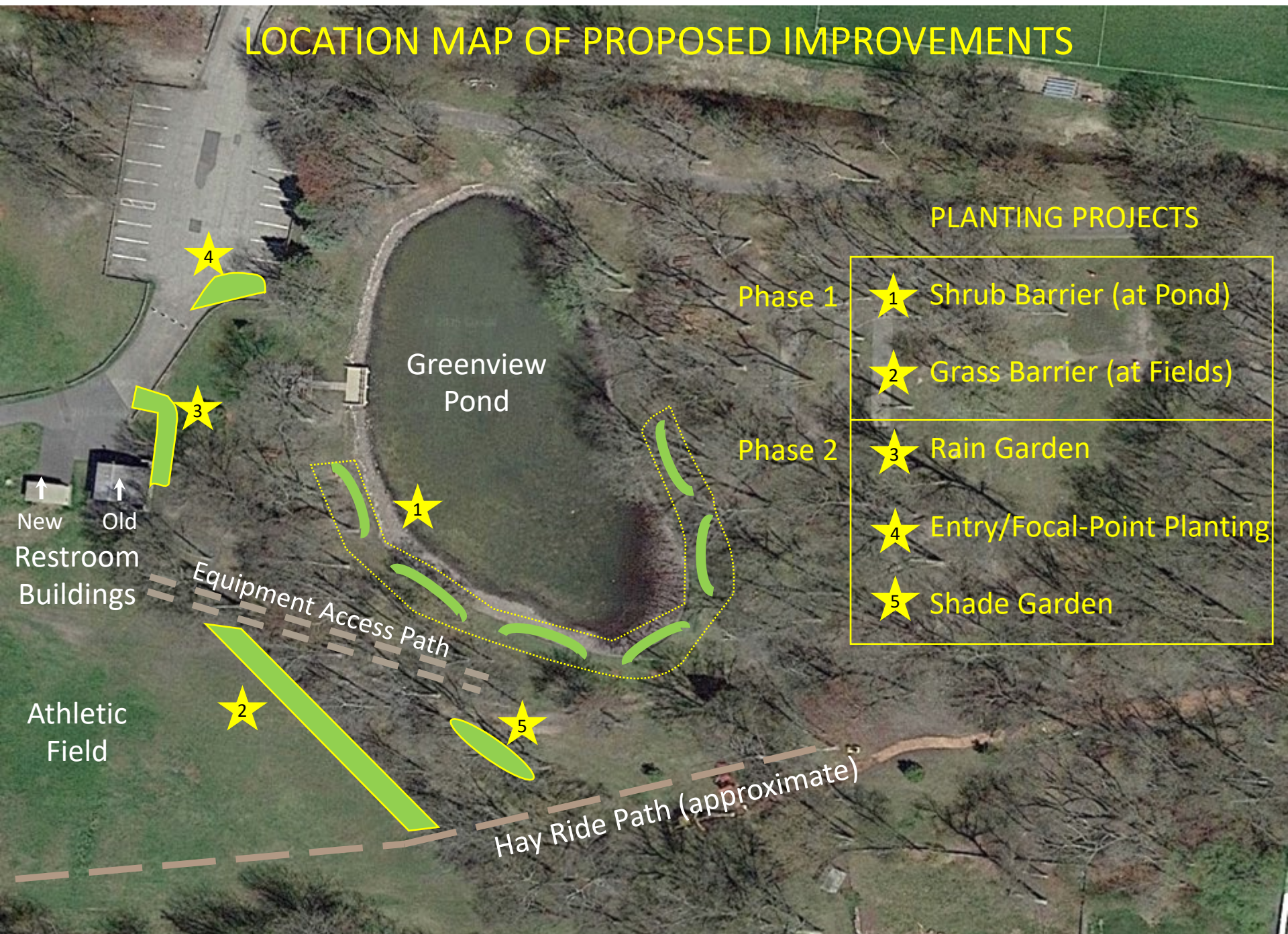
Greenview Pond

Equipment Access Path

Hay Ride Path (approximate)

New Restroom Buildings

Athletic Field



Summary: Plant List for Order

Count x Size Subjects

Grass Barrier (at Athletic Field):

212 x 1-2-gal *Muhlenbergia capillaris* “Pink Muhly Grass”

Shrub Barrier (at Pond):

100 x 3 gal *Hypericum prolificum* “Shrubby St. John’s Wort”

Rain Garden; Aesthetic Feature Garden:

40 x 1-gal *Zizia aurea* “Golden Alexander”

40 x 1-gal *Physostegia virginiana* “Obedient Plant” (var. White & Pink)

40 x 1-gal *Heliopsis helianthoides* “False Sunflower” (var. Summer Fun)

10 x 1-gal *Geranium maculatum* “Cranesbill” (var. Chatto)

Welcome/Focal Point (small quantities, get when available)

4 x 1-gal *Plox subulata* “Moss Phlox”

4 x 1-gal *Aquilegia canadensis* “Eastern Columbine”

1 x large *Cornus kousa* Burger ex Hance var. “Scarlet Fire” *non-native

*Not part of
Canete quote*

Phase 1: Wind/Leaf Barriers

- Purpose

- Prevent leaves from blowing into pond starting fall 2025. Leaves cause odors and fish kills as they decay in the pond.
- Provide habitat to pollinators and other wildlife.
- Provide improved aesthetics.

- Problems

- Leaves come not only from trees along southern border, but also from trees within the park.
- Avoid blocking views of & access to the pond; DPW needs an ~8ft zone beyond pond's full waterline for access.
- Will need to water consistently until established.
- If not established by October, consider snow fencing.

Phase 1: Wind/Leaf Barriers - Proposed Projects



Equipment Access Path

150 ft x 8 ft

Project 1: Shrub Barriers

Hay Ride Path (approximate)

Project 2: Grass Barrier

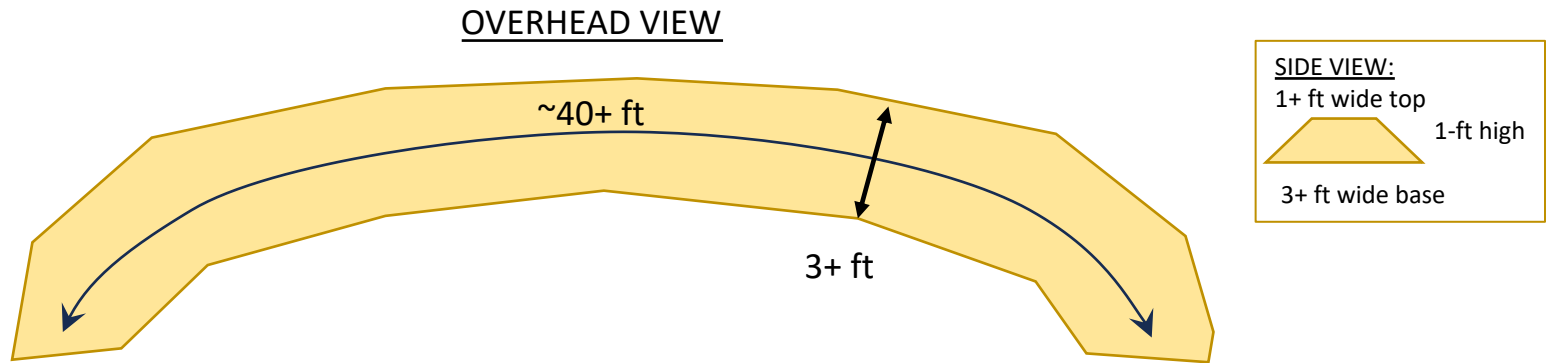


Project 1: Shrub Barriers (at Pond)

- Located along the SW perimeter of the pond to capture leaves falling from all upwind trees
- Seven raised (~1 ft) berms improve leaf-capture efficiency by increasing height; cup shape also helps trap leaves
- *Per DPW, leave 8 ft clear buffer between pond to berms*
- Partly sunny area limits viability to certain plants.
- Selected: Shrubby St. Johns Wort (*Hypericum prolificum*)
 - Long-lasting yellow flowers, late Jun-Aug. More prolific with sun.
 - 1-5 ft H. (Taller if sunnier, but it's a slow grower).
 - Can be pruned to control height.
 - Resistant to flood, drought, and deer.
 - If desired, other things (like Moss Phlox) can be planted in between.

Project 1: Shrub Barriers (at Pond)

- Berm characteristics
 - Leave 8 ft between pond and berms (per DPW)
 - Height: ~8" to 1 ft
 - Width: ~3 ft
 - Length: ~275 ft (total of 7 distinct, ~40 ft-long berms)



- Plantings (large 3-gal pots)
 - Spacing: 3 ft (single row – 14 per berm)
 - Number of plants: ~100x 1-gal size
 - Subject: Shrubby St. John's Wort (*Hypericum prolificum*)

Project 1: Shrub Barriers (at Pond)

Spring/Summer

Fall / Winter

First choice

Shrubby St. John's Wort

Hypericum prolificum

1.0-5.0 ft tall

*Attractive, long-lasting
yellow flowers Jun-Aug;
slow growth is prunable*



Project 1: Shrub Barriers (at Pond) Mockup



Project 2: Grass Barrier (at Athletic Field)

- Located along edge of meadow, beyond dripline of existing trees, but well outside of Athletic Field and between DPW equipment access path and Hay Ride path.
- DPW to create a berm ~150 ft long x ~8 ft wide x 1 ft high connecting the higher ground by the trees to the lower ground level of the field. *Must be in a sunny area (not under canopy).*
- PEC to plant ~212 x 1- and 2-gal pots of
 - Pink Muhly Grass (*Muhlenbergia capillaris*)
- Proposed planting density of 1&2-gal size potted plants:
 - 4 rows of plants at 2.5 ft spacing, alternating (see diagram)
 - Density: 4 plants per 3-ft of length x 150 ft = 200 plants

Project 2: Grass Barrier

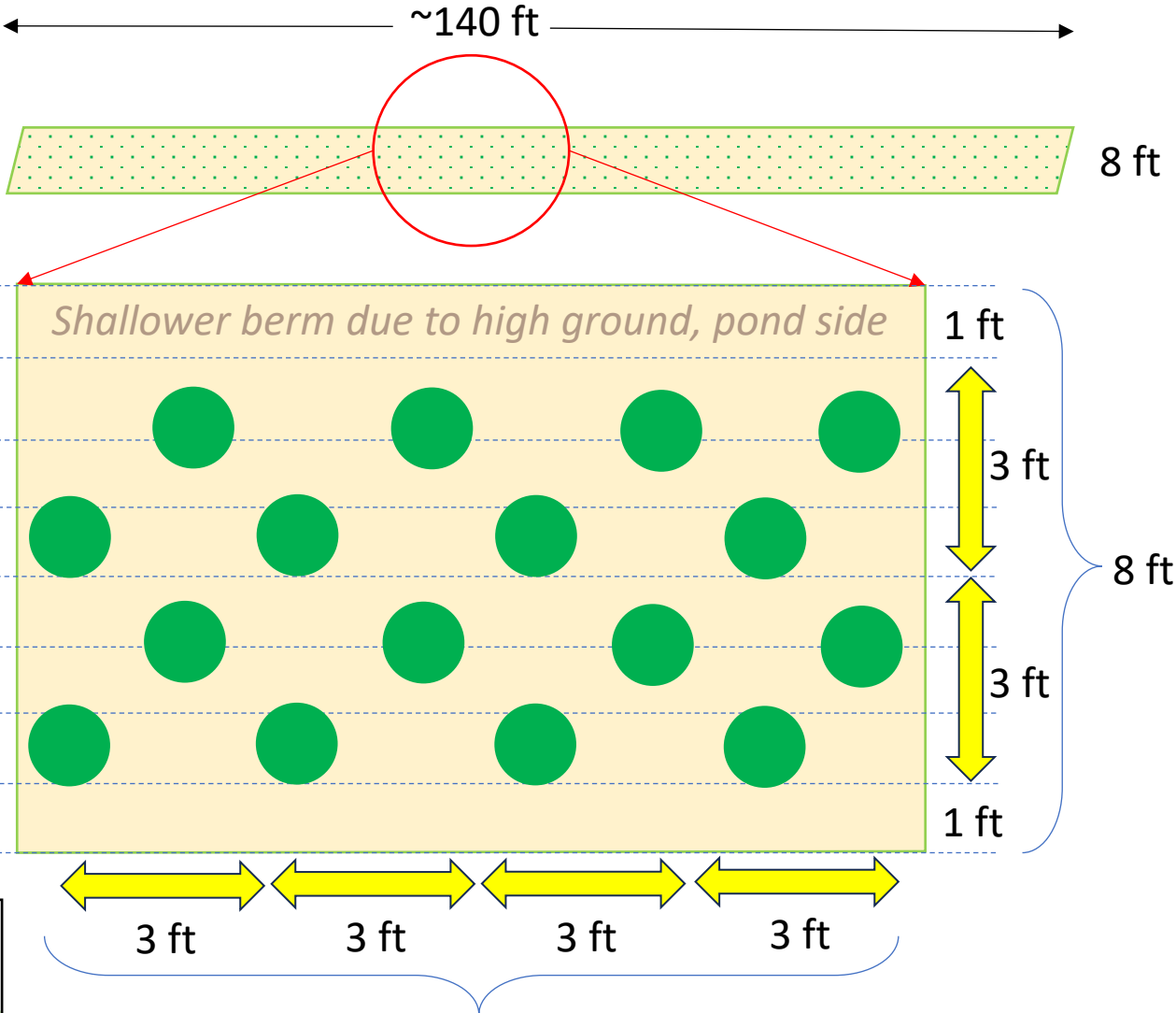
Plant Count

~212 plants

Spacing at ~3'

Each pot placed into a hole 2x the pot diameter, after adding a 2" layer of compost; top with wood chips, at least 2" deep to retain water.

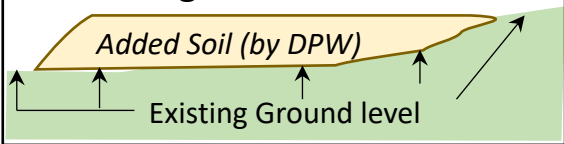
Grass Type:
"Pink Muhly Grass"



Each 3 ft section of length has 4 plants
(add more to get to 212 plants per 140 ft length)

Side View:

8-12" High, ~8 ft Wide



Project 2: Grass Barrier

Spring/Summer

Fall

Winter

First choice for sunny area

Pink Muhly Grass

Muhlenbergia capillaris

2-4 ft tall

Full Sun

Pink in Fall

Mow in early spring



Phase 2: Rain Garden Entry/Focal Point Shade Garden

- Timing: September/Early October
- Canete will order plants to secure stock then hold until needed
- Some small-quantity plants will be purchased from Canete stock later, when needed; may be able to use end-of-season 50-75% off sales to leverage purchases
- NOTE: *Focal Point/Entry Project requires DPW purchase and installation of a new sign, as well as installation of a new walking pathway, BEFORE planting work to begin*

LOCATION OF FOCAL POINT/ENTRY and RAIN GARDEN PROJECTS

Uses DPW's plan for new footpath and idea to have a focal point at the triangle formed by the parking lot and pathways.

- Focal Point to feature a new sign as well as plantings.
- The new connector path will involve removing a tree & section of fencing.
- New fencing proposed to prevent cut-throughs at the rain garden.



Project 3: Rain Garden

- Location
 - North and east of old restroom building's eastern wall.
- Purpose
 - Provide infiltration for rainfall runoff to avoid soggy / swampy area.
 - Provide pollinators with sources of nectar and habitat
 - Improve aesthetics of area with flora
- Problems
 - Reasons for existing swampy condition are not well known
 - Unknown if existing soils will percolate well enough without engineered soils/gravel
 - Shady area limits types of plantings that will thrive there
 - Straight-line path from rest room to pond area could encourage a "cut through" that fencing would help prevent.

PROJECT 3: RAIN GARDEN - PROJECT AREA



Eastern

Northern

Approximate Outline of
Proposed Rain Garden Area

PROJECT 3: RAIN GARDEN - MOCKUP



NOTE: New fencing to prevent cut-through

- Planting area: ~4 ft wide x ~40 ft long (total 160 sf)
 - ~40 x 1-gal *Zizia aurea* (plant 1 per sf)
 - ~40 x 1-gal *Physostegia virginiana* (plant 1 per sf)
 - ~40 x 1-gal *Heliopsis helianthoides* (plant 1 per sf)
- **Total: 120 x 1-gal into 160 sf = 1 plant per 1.3 sf**

RAIN GARDEN: CALCULATION OF REQUIRED RETENTION VOLUME USING ARIAL VIEW OF PROJECT AREA AND POTENTIAL IMPERVIOUS AREAS CONTRIBUTING RUNOFF



Based on wet-weather observations, wet areas are likely getting runoff from:

Northern area: Portions of paved surfaces (minus losses to other areas)

Approximately 400 sf (~42 cf runoff from 1.25" rainfall)

Eastern area: Old restroom roof and pavement (minus losses to other areas)

Approximately 500 sf (~52 cf runoff from 1.25" rainfall)

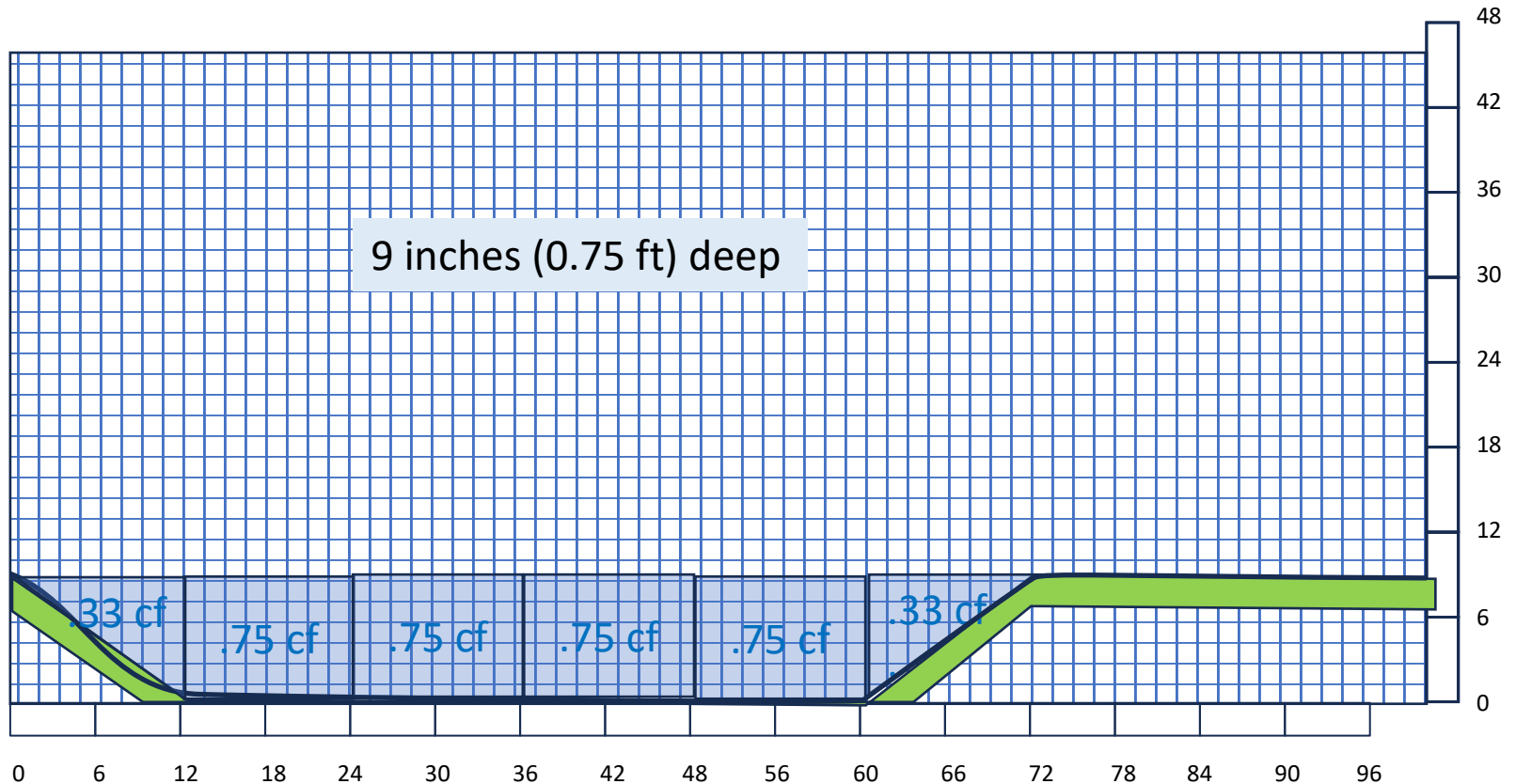
Middle area: minor input only; use storage here as contingency

Required
Volume
1.25" Rainfall
~100 cf

PROJECT 3: RAIN GARDEN – TYPICAL SECTION

6 ft wide depression with max depth 9 in provides ~ 3.5 cf per linear ft
(trench is 4 ft wide at .75 ft depth plus shallower 1ft sides each sloped 45°)

100 cf of storage requires ~30 linear ft of rain garden



Project 3: Rain Garden - Plants

- “Golden Alexander” (*Zizia aurea*)
 - 4 to 6+ hrs sun per day
 - Dry to Occasionally Wet Soil; resists drought
 - 1-2.5' H; Green foliage turns purplish in fall
 - May-Jun: attractive yellow flowers and seedheads
 - Attracts butterflies and many other early pollinators
- “False Sunflower” (*Heliopsis helianthoides*)
 - 4 to 6+ hrs sun per day
 - Dry to Moist Soil; resists drought
 - 3-5' H; long-lasting blossom season
 - Jun-Sep: attractive yellow daisy-like flowers
 - Attracts butterflies, hummingbirds, etc.
- “Obedient Plant” (*Physostegia virginiana*)
 - 4 to 6+ hrs sun per day
 - Dry to Wet Soil; resists drought
 - 2-3' H; Dark green foliage
 - Aug-Sep: attractive pink or white flowers
 - Attracts butterflies, hummingbirds, etc.



Project 4. Welcome / Focal Point

- Purpose
 - Provide visitors with a family-themed welcome sign that is planted with colorful, flowering subjects all season
- Sign
 - DPW to purchase & install new Park Sign
- Plantings
 - *Flank sign with 2 Hypericum prolificum*
 - *Surround with herbaceous plants so that something is in bloom from April - October. Examples:*
 - *Apr-May: Eastern Columbine (Aquilegia canadensis) red/yellow*
 - *May-Jun: Golden Alexander (Zizia aurea) yellow*
 - *Jun-Jul: Cranesbill (Geranium maculatum) blue/purple flowers*
 - *Aug-Oct: Shrubby St. Johns Wort (Hypericum prolificum) yellow blooms*
 - *Aug-Sep: White Wood Aster (Erybia divaricate) white flowers*
 - Also
 - American Dogwood (*Cornus florida*)
 - *May-Jun: pink blooms*
 - *Sep-Oct: red berries, burgundy foliage*

Project 4: Welcome/Focal Point



Project 4: Welcome/Focal Point



Ver. Sep 8 2025

Project 5: Shade Garden

- Purpose
 - Transform a strange ground depression into a feature.
 - Provide habitat to pollinators and other wildlife.
 - Provide improved aesthetics with “island” plantings.
- Problems
 - May require maintenance (periodic weeding, watering, replantings, etc.)

Project 5: Shade Garden



This area is currently a depression in the ground that is difficult to mow. As a planted feature, it could be transformed into a point of interest.

Rough mock-up of
Grass Barrier

Project 5: Shade Garden



MOCK-UP

Plantings could include
native ferns, geraniums,
asters, and others

Rough mock-up of
Grass Barrier

Project 5: Shade Garden

- Plantings

- To simplify ordering and leverage against having too much or too little, recommend using some of the plants ordered for the Rain Garden & Shrub Barrier projects
- *Plus, purchase a few (~6x 1-gal) other subjects to provide interest after the above finish their spring flowering.*

Recommendations:

- Cranesbill (*Geranium maculatum*): Jun-Jul: blue/purple flowers
- Wait on others once we see how much we need to fill in.
- *Perhaps leverage fall clearance sales for cost savings*