

DESIGNING A SUSTAINABLE LANDSCAPE WORKSHOP SERIES



Workshop 2: Constructing your Project



PARTERRE
DESIGN

Constructing a Sustainable Landscape

Workshop 1: Designing Your Space

Thurs, Sept 19
5:00-8:00pm

Concord-Carlisle
High School

Workshop 2: Constructing Your Project

Tues, Oct 8
9:00-11:00am

Concord
Police/Fire Station

Workshop 3: Maintaining Your Yard

Sat, Oct 26
9:00-11:00am

Harvey Wheeler
Community Center

DESIGN STEPS

1. Who will do the work?
2. Draw a scaled map of your property
3. Analyze your property
4. Assess your needs and determine use areas
5. Brainstorm alternative layouts
6. Create your design

INTRODUCTIONS

Town of Concord

Kate Hanley, Director of Sustainability

Melissa Simoncini, Sr. Environmental and Regulatory Coordinator

Parterre Ecological

Miles Connors, Director of Ecological Services

Ryan Corrigan, Ecological Project Manager

Kim Lundgren Associates

Angela Cleveland, Director of Sustainability Planning

THE TOWN OF CONCORD

- Grant from the MACP
- Importance of Sustainability
- Water Conservation
- Building Community



Edible Gardens



Rain Gardens



Lawn Alternatives

What Makes a Landscape Sustainable?

- Supports A Diversity of Local Wildlife
- Requires few Inputs (Water, Fertilizer, Time, Mulch)
- Uses Resources Efficiently (Stormwater, Electricity)
- Contributes to the Health of Surrounding Communities
- Reduces Negative Effects of the Home



Steps to a Successful Sustainable Landscape Installation

1. Understand local bylaws and regulations
2. Pay close attention to Site Conditions
3. Deal with Underlying Drainage Issues, Slope Erosion, and Invasive Species
4. Choose Plants that Fit Site Conditions
5. Layout Based on Existing Structures and goals
6. Installation
7. Guide to Establishment
8. Tips on Meadows



Goals:

- Maintain important views and protect others (Riverview, privacy from street and neighbors)
- Low maintenance, only requiring input a few times per year after establishment
- Balance areas of the garden uniformly, smooth transitions from one part of the garden.
- Promote scale of home to fit into landscape
- Seasonal fragrance and four season interest
- Support wildlife with native plants and habitat space
- Manage stormwater in way that reduces erosion and damage to stream bank steps



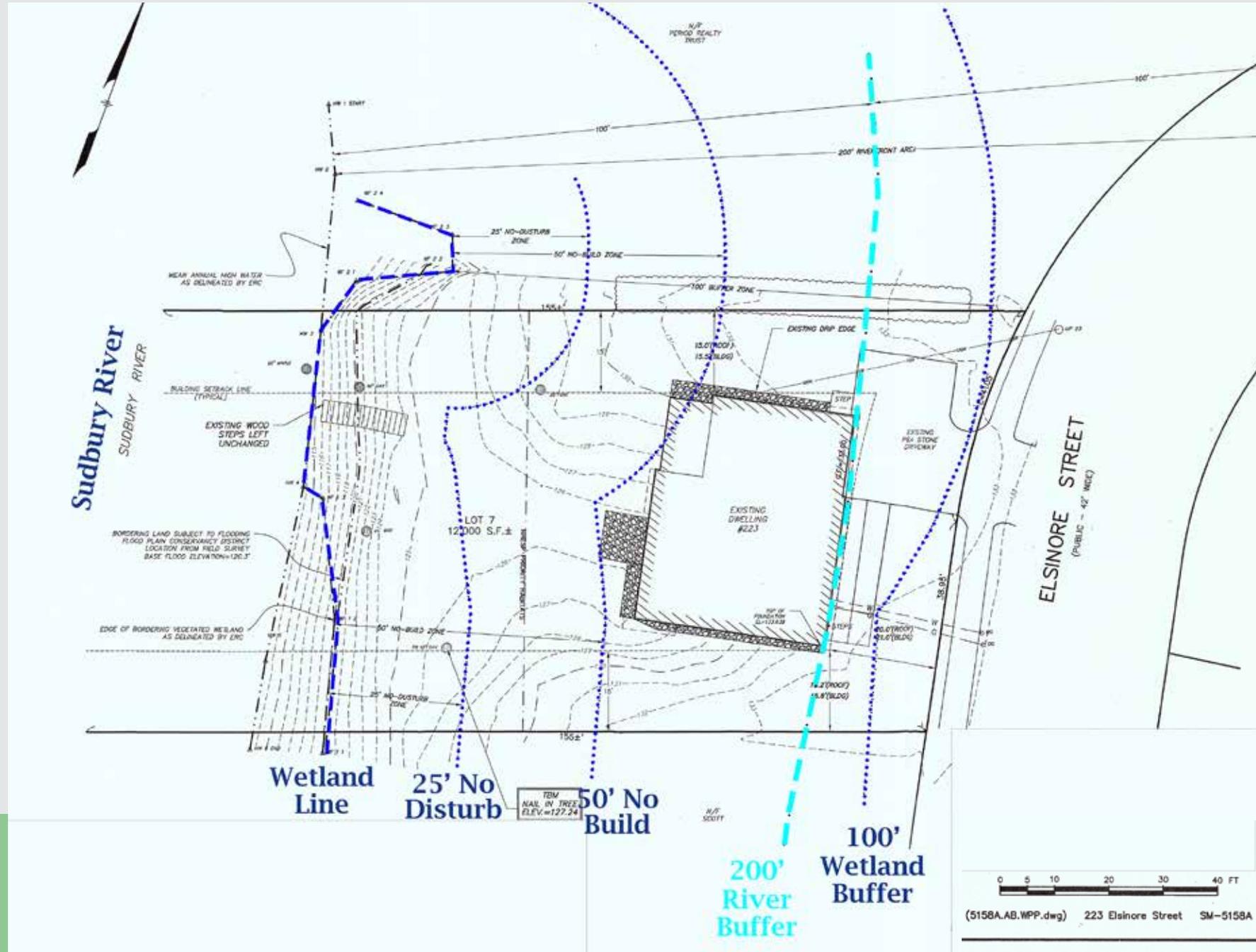
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1. Are you in a Wetland Area?

If so contact Concord Natural Resources Commission before construction

Be aware of local zoning bylaws

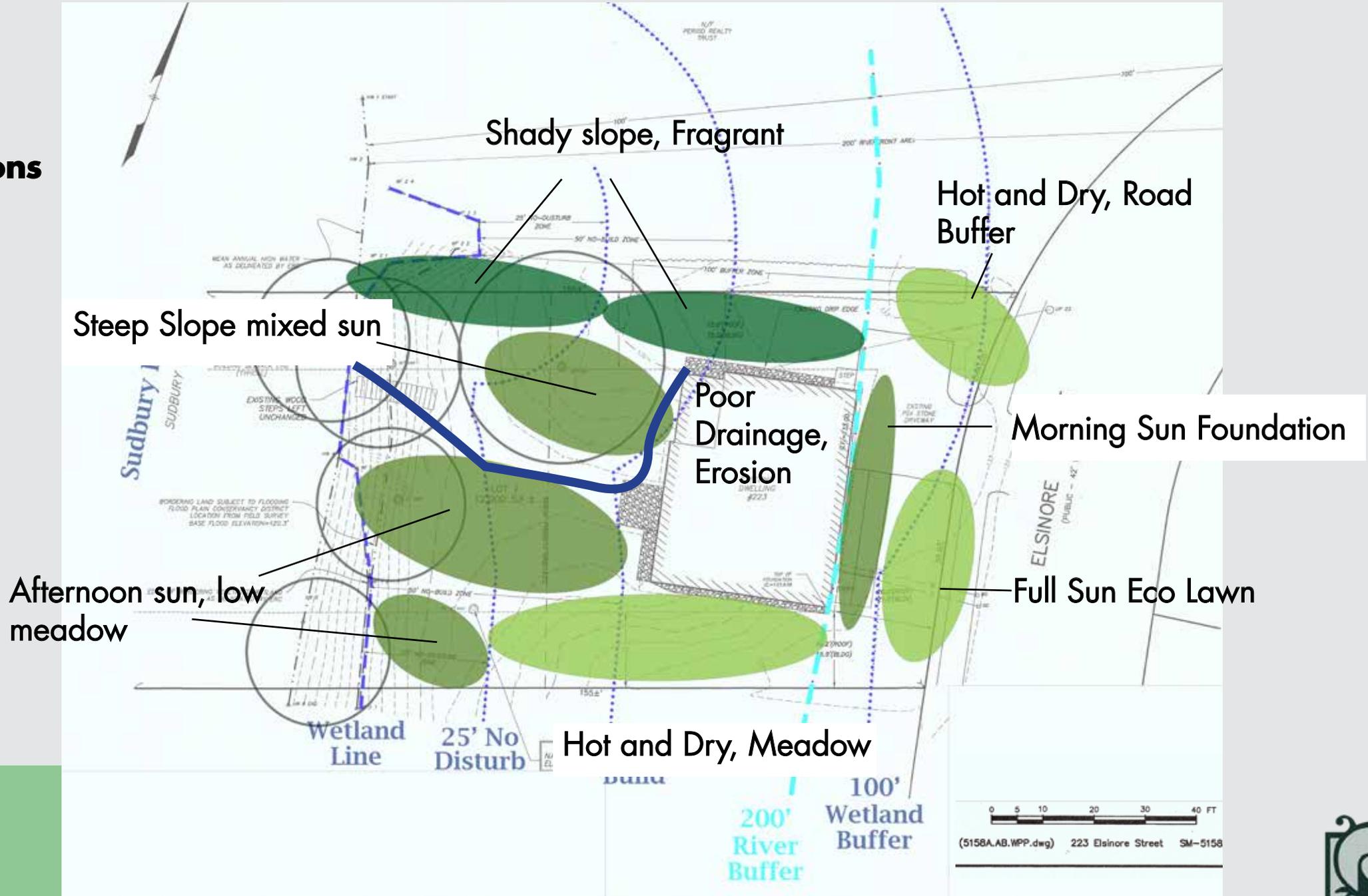
Tree Preservation Bylaw
Landscape Buffer
Corner Clearance



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2. Identify Character Zones and Site Conditions

- Shade vs Sun
- Sloped vs Flat
- Moist vs Dry
- Home Scale Vs Natural Scale







3. Manage Invasive Species and Deal with Erosion



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Managing Invasive Species organically

- Full Root Removal
- Consistent Cutting
- Solarization
- Seed Bank Control
- <https://www.massnrc.org/mipag/>



Managing Invasive Species with Targeted Herbicide

- Remove Invasives without Disturbance
- Japanese Knotweed Wiping
- Allow Roots to Support Slope



Stabilize Eroding Slopes

- Prevent sedimentation
- Reinforce fibers with vegetation



Mitigate Existing Drainage Issues

- Slow
- Spread
- Sink
- Drain when necessary





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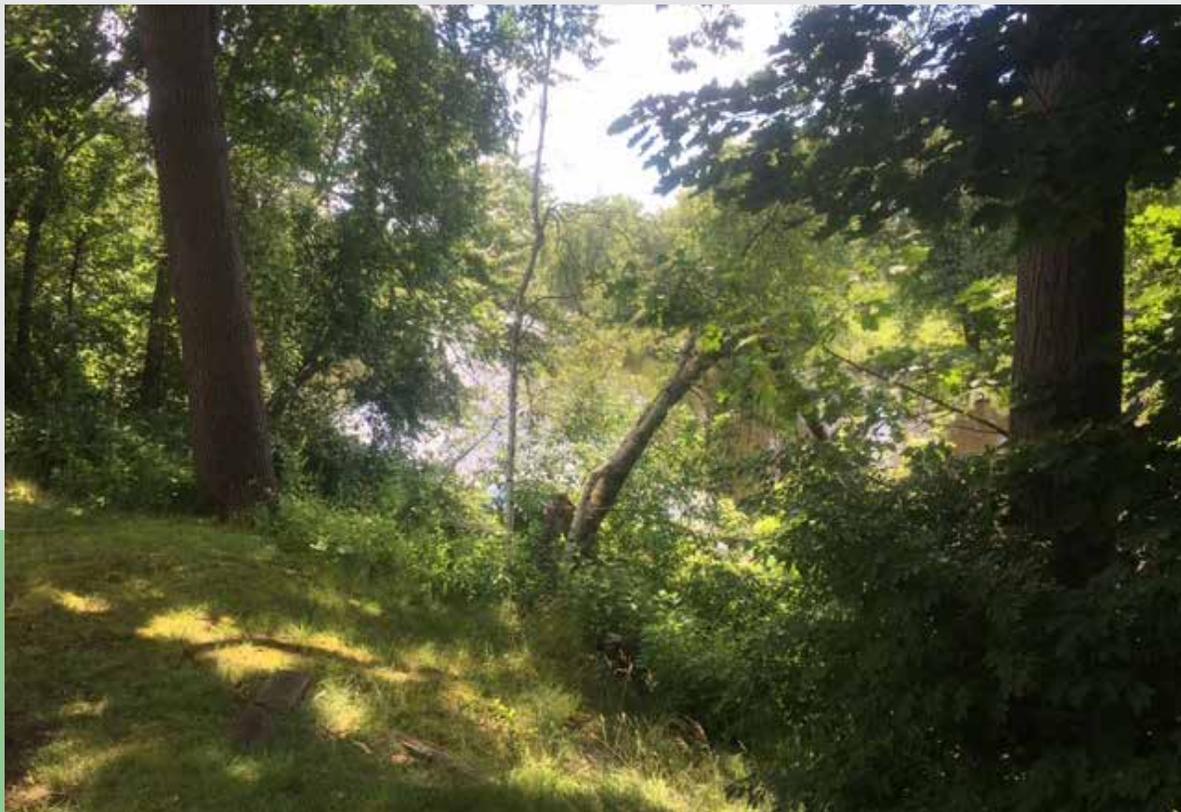
Native Plant Layout and Installation



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Understanding the Native Plant Community will help establish what plants will thrive

[https://www.mass.gov/service-
details/terrestrial-palustrine-and-
estuarine-community-types](https://www.mass.gov/service-details/terrestrial-palustrine-and-estuarine-community-types)





Traditional Design Spacing?



Natural Design Spacing?



Conservation Grade?

- Establishes Faster
- Will Catch Up



1 GALLON



Balled and Burlap

- Instant Coverage
- Needs more Care to Establish





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Plant Calculator

Use our handy calculator to determine the appropriate number of plants needed for an area.

Length in Feet

Width in Feet

Distance Between Centers in Inches

Calculate

Total Square Footage

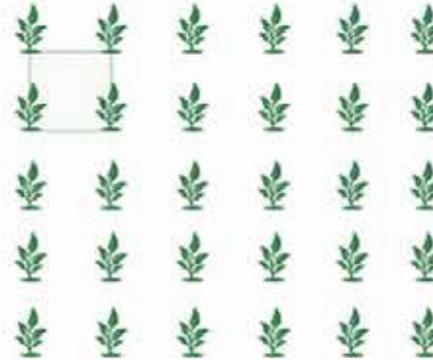
250

Distance Between Centers in Inches

24

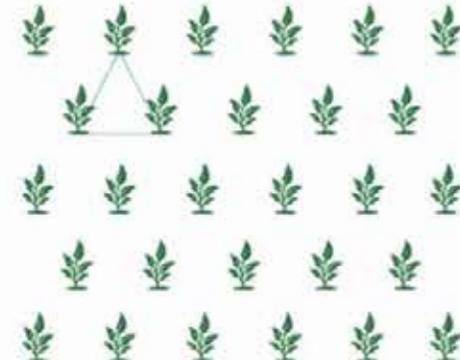
Calculate

Square Planting Pattern



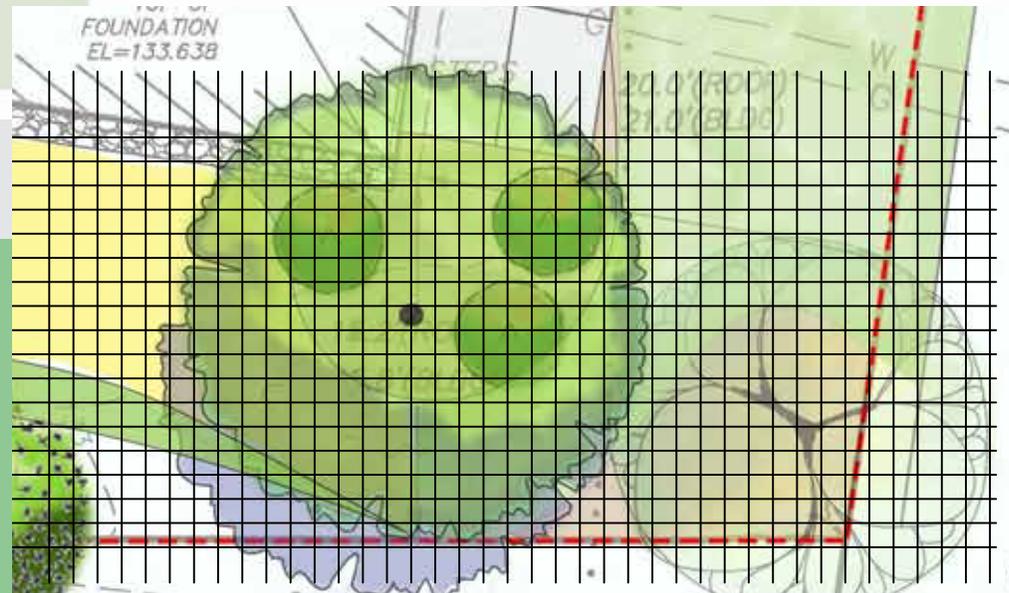
Plants Needed: 63
Based on # Sq. Ft.: 250.0
Plants Centered On: 24"

Triangle Planting Pattern



Plants Needed: 72
Based on # Sq. Ft.: 250.0
Plants Centered On: 24"

Source: Midwest Groundcovers



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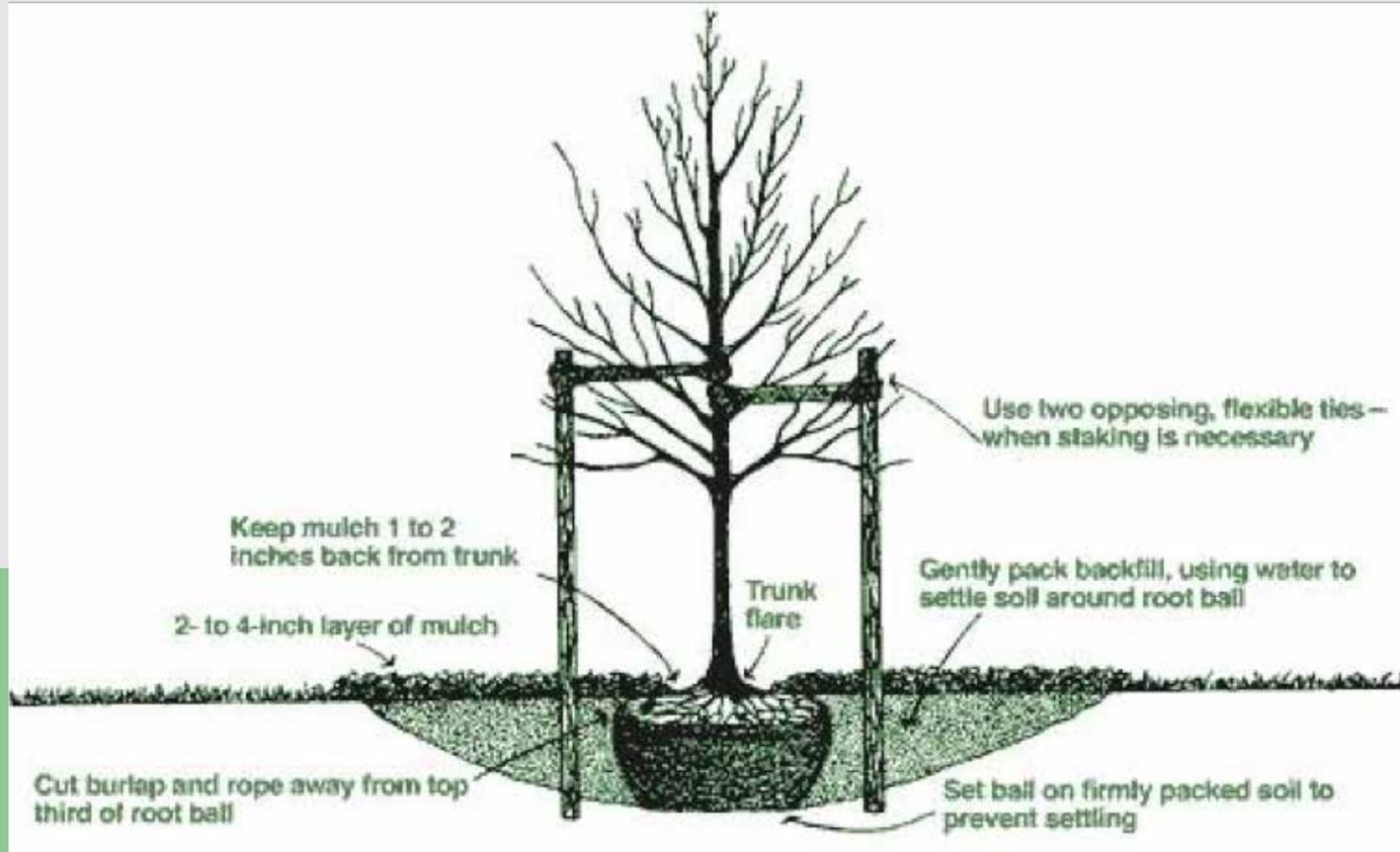


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Plant Installation (Trees, Shrubs)

- Native Plants Planted in the Right Conditions Require little to no Soil Amendments
- Find Root Flares on all Trees
- Tree Hole = 2x Width of Root Ball
- Remove Clay Soil Around Roots
- Find the Face of the Tree
- Use Water to Eliminate Air Pockets





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Plant Installation (No Mow Seed)

- Late Spring or Early Fall
- Grade Soil Surface to Reduce Puddling or Erosion
- Divide Area and Seed into Pieces
- Toss evenly by hand making sure not to run out
- Lightly Rake into Soil
- Increase Seed to Soil Contact



No Mow Lawn Seed Mix -



Seeding Rate:
220 lbs per acre
5 lbs per 1000 sq ft

Minimum order size:

Quantity	
5-19	Lb
20-49	Lb
50-199	Lb
200-499	Lb
500-1000	Lb
1001	Lb

Prairie Nursery



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Plant Installation (Live Stakes)

- Cuttings from Dormant Trees/Shrubs
- 2-3' Length, Buried 2/3 below ground
- Mature in 3-5 Years



Establishment

- After Installation, water once per day for first two weeks (Pending Rain)
- Week 2-4 - Water 2-3 times per week unless drought
- New Growth Indication of Establishment
- Water Trees and Shrubs during any drought for first 2 years

Weeding and Management

- A light layer (2") of leaf mulch
- Remove Weeds by Roots first two years
- In Competition, Cut Weeds at Base
- Use Rabbit Repellent and Deer Fencing until Establishment



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Plant Installation (Meadow)

- Late Oct - Dec., April to mid-June
- Eliminate Existing Vegetation and Seed Bank (Takes Time)
- Carefully Choose Seed Mix
- Divide Seed and Area into Groups
- Incorporate Seed into Soil
- Mow 3-5 Times in First Season
- Year Two some Color, Year 3 Takes Off





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Questions and Discussion



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THANK YOU FOR COMING

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Site Tour

**223 Elsinore Street,
Concord, MA**

**Please Carpool Over,
Park on the Street**

**Be on the Lookout for
Small Plants and Plugs**



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