

Fairfield WWTP Hardening Project

Fairfield Beach Neighborhood Meeting Presentation

March 20, 2018

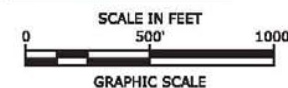
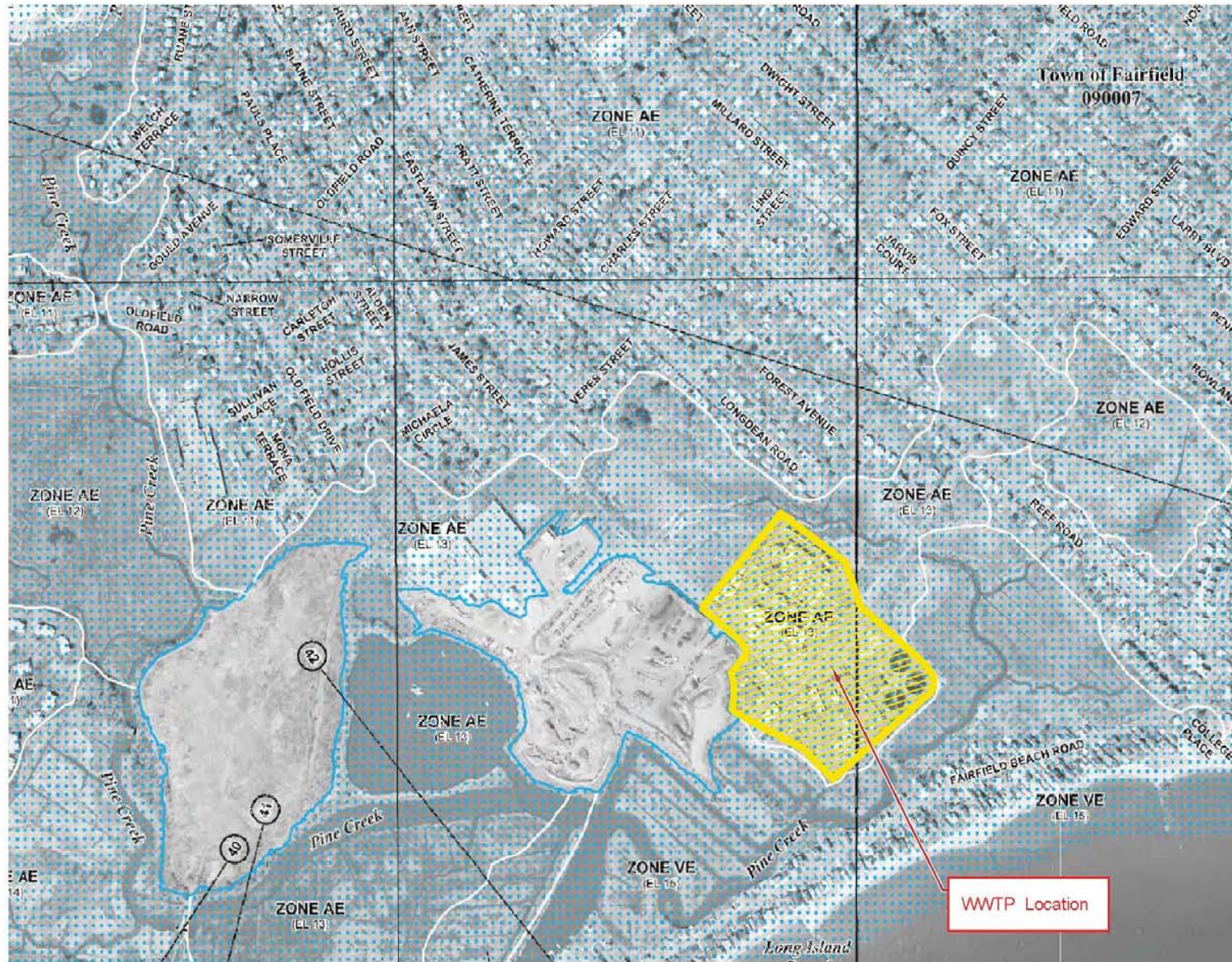
Presentation Team

Joseph Michelangelo, P.E., Director of Public Works,
Town of Fairfield

Jonathan Richer, P.E., Project Manager, Tighe & Bond

Project Overview

- **Fairfield Wastewater Treatment Plant (WWTP) experienced flood damage during Hurricane Sandy**
- **Town of Fairfield secured funding for project through Department of Housing's CDBG-DR program**
- **Project includes sheet pile wall or earthen berm to protect the WWTP, Fire Training Facility, Conservation Building and Animal Shelter. Structure built to 500-Year flood elevation**
- **Two pump stations will discharge rainfall from within the barrier**
- **Insignificant impact on flood elevations (\approx 1/8 inch)**



NFIP PANEL 0419G

FIRM
FLOOD INSURANCE RATE MAP
FAIRFIELD COUNTY,
CONNECTICUT
(ALL JURISDICTIONS)

PANEL 419 OF 626
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:
COMMUNITY: FAIRFIELD, TOWN OF
MAJOR: 04007
FIRM: 0419
SURF: 0

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER 09001C0419G
MAP REVISED JULY 8, 2013
Federal Emergency Management Agency

NFIP PANEL 0438G

FIRM
FLOOD INSURANCE RATE MAP
FAIRFIELD COUNTY,
CONNECTICUT
(ALL JURISDICTIONS)

PANEL 438 OF 626
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:
COMMUNITY: FAIRFIELD, TOWN OF
MAJOR: 04007
FIRM: 0438
SURF: 0

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MAP NUMBER 09001C0438G
MAP REVISED JULY 8, 2013
Federal Emergency Management Agency

**FAIRFIELD WASTEWATER
TREATMENT PLANT HARDENING
FAIRFIELD, CONNECTICUT**

FIRM MAP

DATE: 6-11-2015
SCALE: 1" = 500'



DATE: 05/11/2017
PROJECT: WASTEWATER TREATMENT PLANT HARDENING PROJECT
DRAWN BY: JES
CHECKED BY: JES
APPROVED BY: JES



Tighe & Bond
www.tighebond.com
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100



Wastewater Treatment Plant Hardening Project

Town of Fairfield

Fairfield, CT

VERIFY SCALE

BAR IS 1 INCH ON
ORIGINAL DRAWING
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

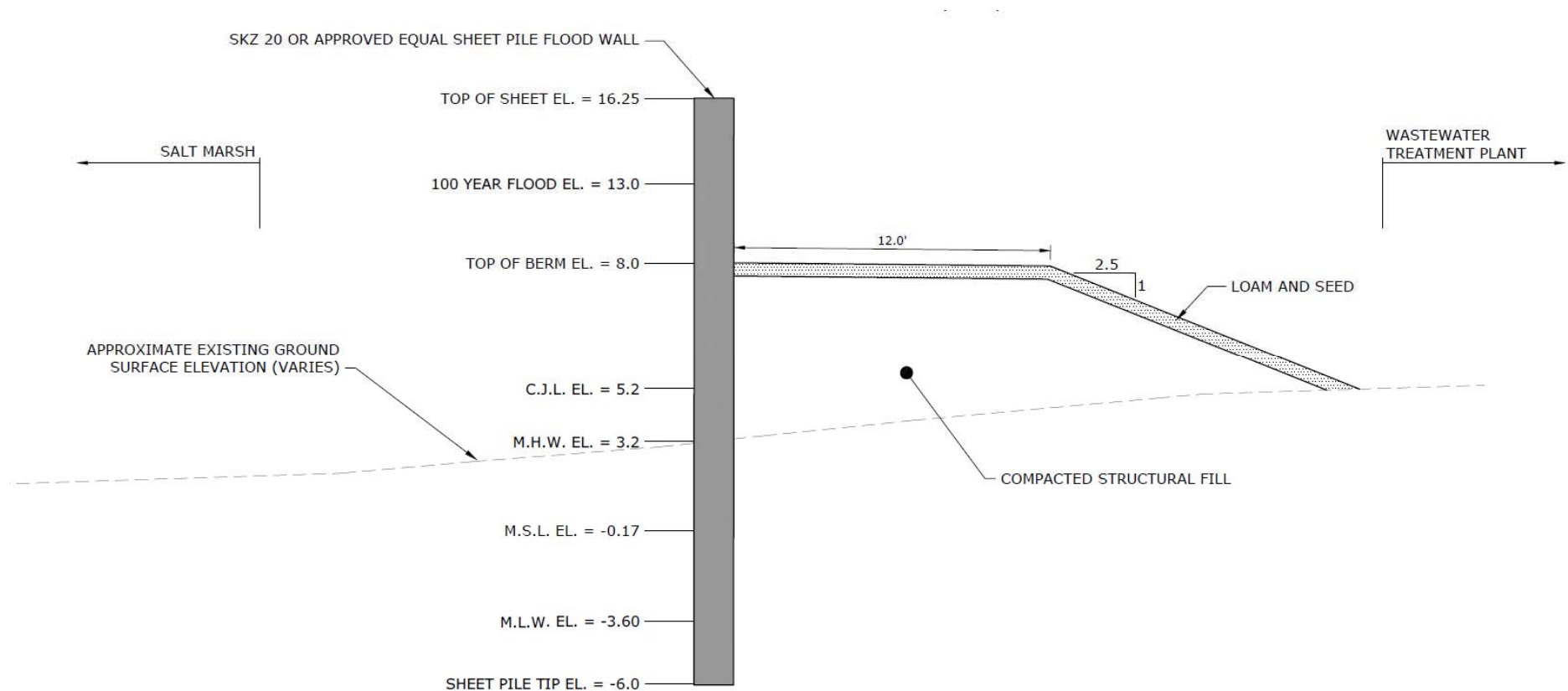
DATE	DESCRIPTION
05/11/2017	PROJECT NO. 1504-01
05/11/2017	DATE
05/11/2017	FILED: 05/11/2017 PRESENTATION/PLANS
05/11/2017	DRAWN BY: JES
05/11/2017	CHECKED BY: JES
05/11/2017	APPROVED BY: JES

AERIAL IMPROVEMENTS PLAN

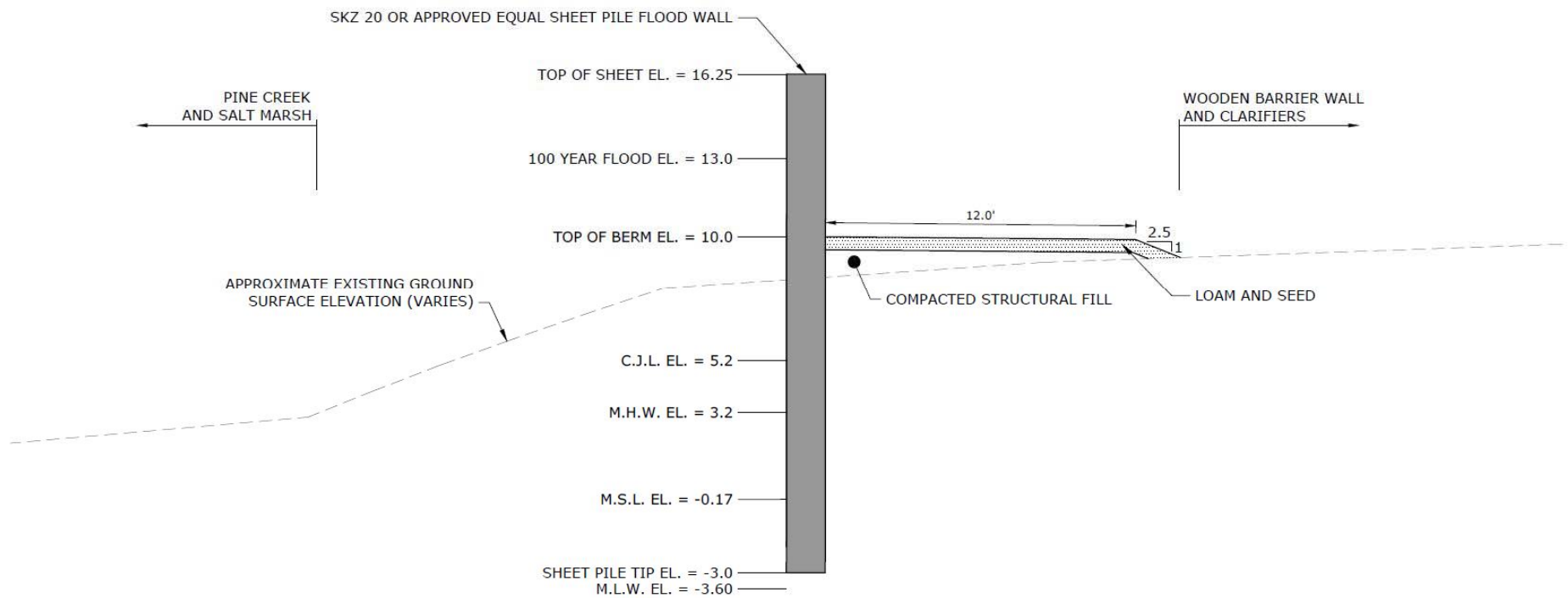
SCALE: 1" = 30'

PR.01

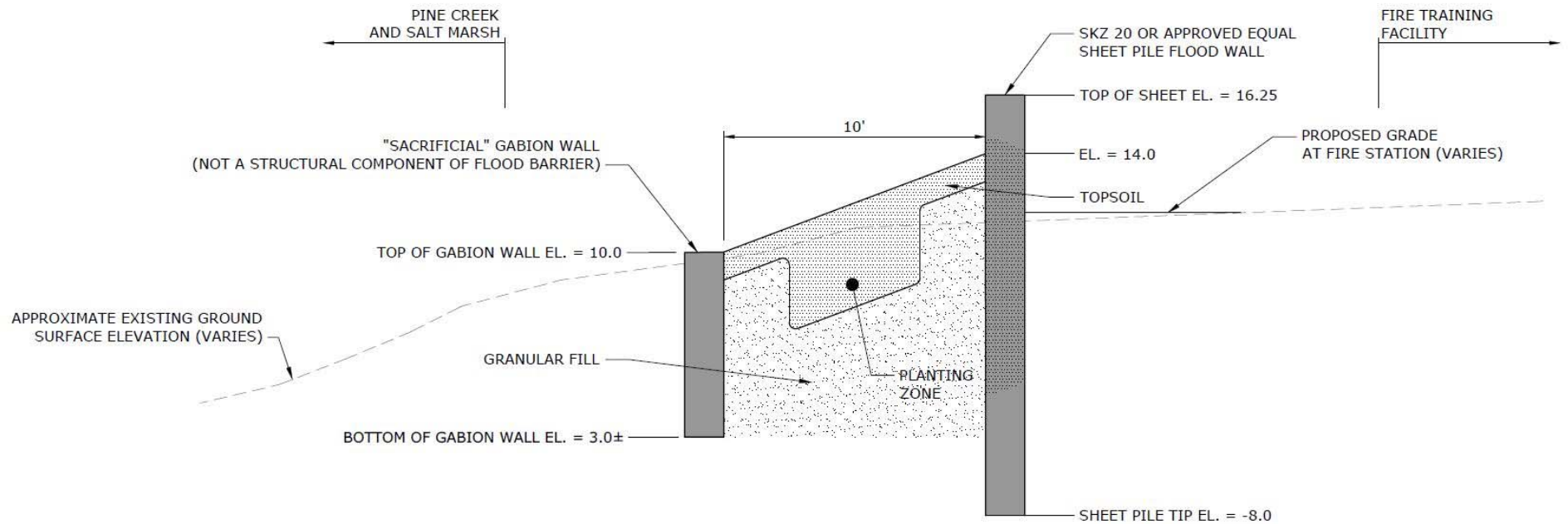
Typical Wall Section - North



Typical Wall Section - Southeast



Typical Wall Section - South



Longdean Road Existing



Longdean Road With Proposed Wall



Longdean Road With Screened Wall



Longdean Road – Potential 5 Year Growth



Forest Avenue Existing



Forest Avenue Proposed Wall



Forest Avenue With Screened Wall



Forest Avenue – Potential 5 Year Growth



Fairfield Beach Road Existing



Fairfield Beach Road Proposed Wall



Fairfield Beach Road With Screened Wall



Fairfield Beach Road – Potential 5 Year Growth



Fire Training School Area - Existing



Fire Training School Area – Initial Planting



Fire Training School Area – 10-Year Growth



Fire Training School Area – 20-Year Growth



Screening Options

Eastern Red Cedar

- HARDINESS ZONES: ZONE 2-9
- GROWTH RATE: 13-24" PER YEAR.
MATURES TO 40-50' SPREAD OF 8-20'
- SUN PREFERENCE: FULL SUN OR AT
LEAST SIX HOURS OF SUNLIGHT
- SOIL PREFERENCE: GROWS IN ACIDIC,
LOAMY, MOIST, SANDY, SILTY SOIL.
CAN WITHSTAND OCCASIONAL
FLOODING, HAS GOOD DROUGHT
TOLERANCE
- ATTRIBUTES: DUE TO ITS VERSITILITY
AND TOLERANCE OF MULTIPLE SOIL
CONDITIONS, IT MAKES A GREAT
CHOICE FOR SCREENING CONDITIONS.
TOLERATES WIND AND SALT.
PRODUCES BERRIES THAT ARE A FOOD
SOURCE FOR WILDLIFE. NESTING
PLACE FOR MANY SPECIES OF BIRDS.



Screening Options Downy Serviceberry

- HARDINESS ZONES: ZONE 4-9
- GROWTH RATE: 13-24" PER YEAR. MATURES TO 15-25'
- SUN PREFERENCE: FULL SUN TO PARTIAL SHADE
- SOIL PREFERENCE: TOLERATES ACIDIC, MOIST SOILS
- ATTRIBUTES: TREE IS AN ALL SEASON BEAUTY. BLOOMS MARCH-APRIL, WITH WHITE FLOWER. LEAVES TURN RED GOLD IN THE FALL. PRODUCES BERRY LIKE FRUIT WHICH IS LOVED BY WILDLIFE.



Screening Options Winterberry

- **HARDINESS ZONES:** ZONE 4-7
- **GROWTH RATE:** 13-24" PER YEAR, MATURE HEIGHT OF 18-24', SPREAD 10-12'
- **SUN PREFERENCE:** FULL TO PARTIAL SHADE
- **SOIL PREFERENCE:** ACIDIC, LOAMY, MOIST, SANDY, SILTY SOIL
- **ATTRIBUTES:** CAN BE GROWN AS A SHRUB OR TREE. LIGHT GREEN LEAVES TURN YELLOWISH-RED IN FALL. PRODUCES VIVID ORANGE FRUIT IN THE WINTER MONTHS



Screening Options Black Gum

- HARDINESS ZONE: ZONES 4-9
- GROWTH RATE: 12-24" PER YEAR, MATURE HEIGHT OF 30-50', SPREAD OF 20-30'
- SUN PREFERENCE: FULL SUN TO PARTIAL SHADE
- SOIL PREFERENCE: ACIDIC, LOAMY, MOIST, SANDY, SILTY SOILS.
- ATTRIBUTES: STUNNING FALL COLOR, FRUIT IS A FOOD SOURCE FOR MANY SPECIES OF BIRDS. PROVIDES NUTRITION FOR BEES IN EARLY SPRING.



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Fire Training Screening Upright White Pine

- **Eastern White Pine (Pinus Strobus Fastigiata)**
- **Hardiness Zone 3-8: Connecticut is zone 5/6.**
- **Growth Rate:** Grows at a fast rate, with potential growth of 24-36" per year. Can grow in excess of 50ft tall and 12ft wide.
- **Sun Preference:** Full sun and partial shade are best for this tree, it prefers a minimum of four hours of direct sunlight each day
- **Soil Preference:** Grows in acidic, moist well-drained and dry soils. While it does best in moist soil, the tree can be known to tolerate everything from dry, rocky ridges to bogs.
- **Attributes:** Works well for windbreaks and screening in areas that are limited for space. Rapid growth rate. Provides food and shelter for numerous forest birds and wild life. Tolerates heavy winds, snow, ice, heat waves and drought. Deer resistant. Little to no maintenance.



Questions?



Jonathan A. Richer, P.E.
Project Manager
Tighe & Bond, Inc.
1000 Bridgeport Avenue
Shelton, CT 06484