Rain Garden Proposal at 80FW Hartford Drive

Project representatives

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Project Recap and Phase 2 Proposal: Stump Removal and Rain Garden Installation

On August 9th, we were visited by Ms. Kate Homet from the planning department in response to tree removal on our property. We were unaware that the wetlands buffer extended so far into our property.

Our original goal was to remove six pine trees to make way for solar panels and improve safety. We were asked by the city to look into updating the GIS lines to better identify where the wetland boundary was.

Update from Marc Jacobs, Wetland Scientist:
Marc Jacobs, a wetland scientist, reviewed our project and sent the following email: "I believe this satisfies the CUP application requirement for a site sketch with dimensions and provides additional clarification that the applicants did not cut trees within the 25 or 50-foot buffer. The two areas of tree cutting indicated in blue shade are, however, within 100 feet of wetlands, which are jurisdictional pursuant to Portsmouth zoning. This sketch should also allow you to update your GIS information."

Phase 2 Proposal: Stump Removal and Rain Garden Installation

As part of our ongoing efforts to improve the safety and environmental quality of the property, we are now proposing Phase 2 of the project: **excavating to remove the stumps** and **installing a rain garden**. The need for a rain garden has arisen due to **standing water** in the area. The rain garden will address drainage issues, helping to manage water runoff and improve the overall site condition.

The new phase of the project includes:

- **Excavation** to remove the stumps in preparation for the rain garden installation.

- Excavating the **rain garden area** to a depth of approximately 33 inches with slopes of 3:1 on all sides to effectively capture water from both properties.
- Installing **landscape fabric** on all sides to prevent erosion.
- Filling the rain garden with **18 inches of ¾-inch crushed stone**, **3 inches of 3/8-inch crushed stone**, and **12 inches of bio-media** (a mixture of sand, loam, and woodchip).
- **Top-dressing** the bio-media with loam, followed by the broadcast of a **wildflower conservation mix**.

We are committed to addressing the environmental concerns and drainage issues on the property while ensuring the safety and well-being of our family, neighbors, and the surrounding environment. We request the city's approval for this Phase 2 project, which will continue to improve the site and address the standing water problem through the installation of the rain garden.

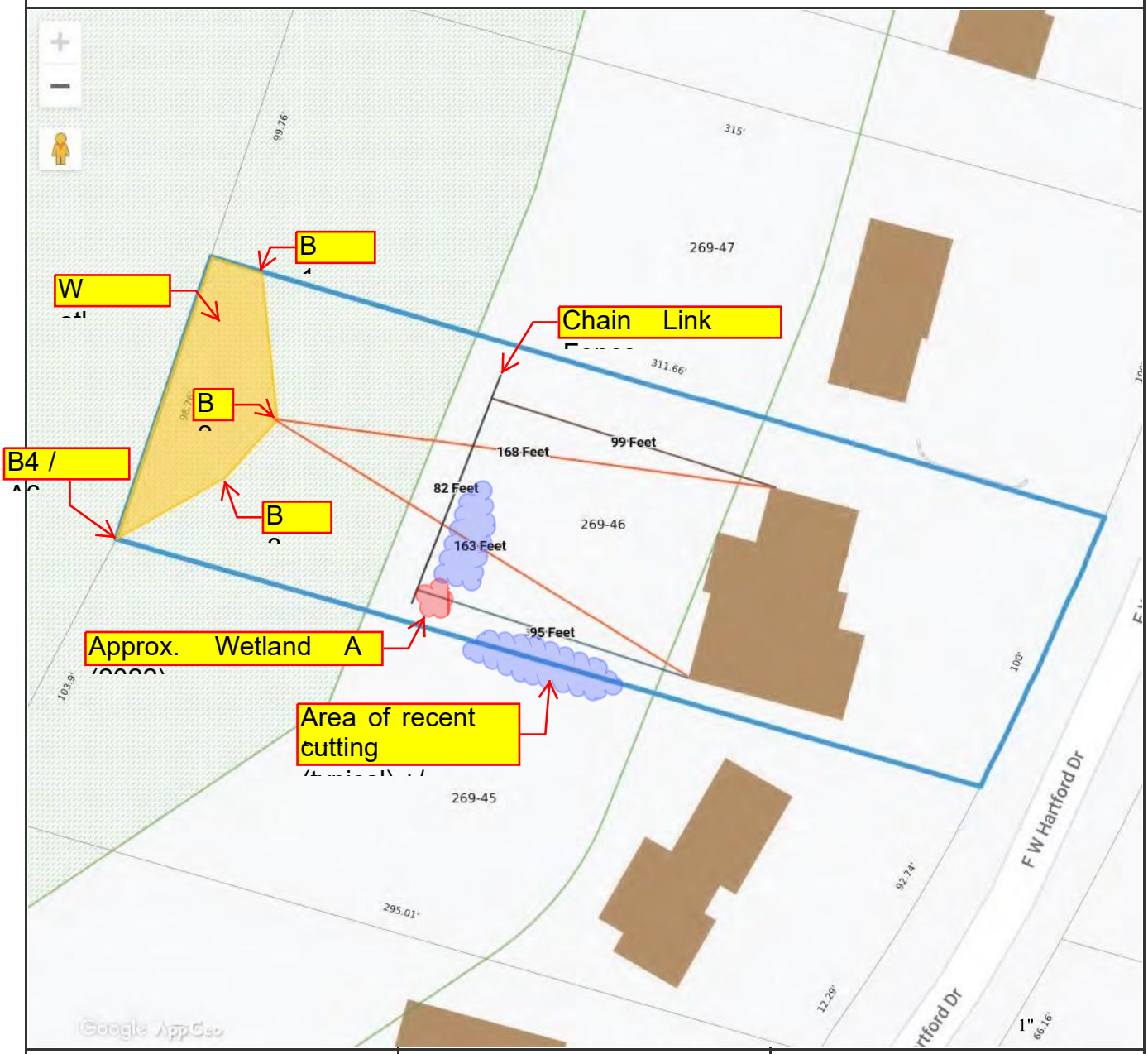
Location:

Stumps and Roots:

Standing Water After Tree Removal

City of November 15,

F W Hartford



Property

P 02
L 8 FW
O F

Delineation Marc Jacobs, Closed wetland not intended to isolation. Flags B1- solid pink

MAP FOR NOT A LEGAL

City of Portsmouth, NH makes no claims and no expressed or implied, concerning the validity or accuracy the GIS data presented on

Geometry updated
Data

Print map scale is Critical layout or activities should not be done using this

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NORTHEAST LANDCARE
Rochester, NH

Rain Garden Proposal

Steve Barndollar

80 FW Ave, Portsmouth NH

Rain Garden installation:

Excavate to remove stumps and haul away debris. Excavate rain garden trench with slopes (3:1) (120ftx5ft). Install geo textile woven fabric (NRW) along each side of trench and staple for erosion control. Install 12 inches of 3/4 crushed stone along entirety of rain garden. Install 3 inches of 3/8 stone on top of 3/4 crushed stone. Install 18 inches of bio media on top of 3/8 stone. The bio media consists of a sandy loam with woodchips for the final layer of filtration. A layer of sandy loam that does not consist of woodchips to assist with germination and root establishment of the wildflowers. Loam all disturbed areas and broadcast premium mix grass seed with an application of starter fertilizer.

Installation of wildflowers and trees:

Wildflowers will be planted in new loam and potting soil and will receive an application of roots starter fertilizer to assist with germination and health of plants.

The rain garden and hedgerow are designed as an integrated ecological feature that serves both as a water management system and a natural privacy screen. The selected species are suited for wet conditions and contribute to the overall ecological function of the area. Core Rain Garden Plants: ● Swamp Milkweed (Asclepias incarnata): Attracts a variety of pollinators with its pink flowers. ● Alternative: Joe-Pye Weed (Eutrochium purpureum) ● Cardinal Flower (Lobelia cardinalis): Features vibrant red flowers, excellent for attracting hummingbirds. ● Alternative: Great Blue Lobelia (Lobelia siphilitica) ● Swamp Verbena (Verbena hastata): It thrives in moist to wet soils. ● Alternative: Blue Vervain (Verbena hastata) ● Blue Flag Iris (Iris versicolor): Offers striking blue-purple flowers, well-suited for wet soil conditions. ● Alternative: Marsh Marigold (Caltha palustris) ● Turtlehead (Chelone glabra): Known for its white, snapdragon-like flowers. ● Alternative: Virginia Bluebells (Mertensia virginica) Hedgerow Integration (Shrubs): ● Inkberry Holly (Ilex glabra): Provides year-round greenery and supports bird populations. ● Alternative: Spicebush (Lindera benzoin) ● Highbush Cranberry (Viburnum trilobum): Offers attractive flowers, fruits, and vibrant fall foliage. ● Alternative: Witherod Viburnum (Viburnum nudum) ● Swamp Azalea (Rhododendron viscosum): Features fragrant flowers in late spring. ● Alternative: Sweet Pepperbush (Clethra alnifolia) ● Winterberry Holly (Ilex verticillata), providing vibrant winter berries. ● Alternative: Red Chokeberry (Aronia arbutifolia) Hedgerow Integration (Trees): ● Serviceberry (Amelanchier arborea) ● Alternatives: Sweetbay Magnolia (Magnolia virginiana) ● Flowering Dogwood (Cornus florida): Chosen for visual interest and ecological support. ● Alternatives: American Witch-hazel (Hamamelis virginiana) Highbush Blueberry Placement: ● Six Highbush Blueberry (Vaccinium corymbosum) shrubs will be planted along the back

fence, not within the hedgerow. These are selected for their water filtration capabilities, berry production, and added privacy. Ecological and Functional Benefits: ● Rain Garden: Acts as a natural filtration system, enhancing water quality and reducing flood risks. ● Integrated Hedgerow: Increases biodiversity by providing continuous habitat and food sources for wildlife, supports pollinator pathways, and offers natural air and noise filtration.