### Safa Property, LLC / VIP Lombard 849 E. Roosevelt Road, Lombard, IL (CBBEL Project No. 210340)

October 24, 2022

### Native BMP/Buffer Performance Standards, Specifications and Long-Term Plan

Safa Property, LLC / VIP Lombard will be responsible for funding and implementing a three-year monitoring and management plan for establishing the native vegetation areas within the wetland buffer/BMP/Detention Basin. This plan only covers those areas seeded or planted with native vegetation. This plan does not include the existing wetland, undisturbed buffer to the south and west of the existing wetland or other areas of preserved existing vegetation. Please see Attachment 1 which delineates the limits of the area covered by this document.

This document also includes the "Long-Term" (post 3-year) maintenance and monitoring requirements for the Native BMP/Buffer/Detention Areas (Page 5).

### General Landscape Requirements

- 1. All plants and seed specified, except temporary cover crop, shall be native to the North Central
- Region of the United States.
- 2. Cover Crop: Seed Oats.
- 3. Native Seed Mixes: Nursery providing seed mix must be from within 150 miles of the project site.
- 4. No horticultural varieties shall be used. All native plant materials shall be straight species.

### Installation Requirements

Areas to be planted with native species shall conform to the following requirements to insure establishment.

- 1. Planting areas shall have at least 6 inches of clean un-compacted topsoil. If determined to be necessary by the Engineer, soil shall be tilled to a depth of at least 6 inches to reduce compaction within the planting areas.
- 2. Cover crop may be planted immediately after grading to prevent erosion if conditions are not conducive for native species seeding. Permanent native species shall be planted during the first available growing season at the appropriate time and conditions for such plantings.

### Compliance & Final Acceptance of Planting

The maintenance and monitoring period will last for three (3) years or until acceptance of the restoration and enhancement areas by the Village of Lombard or DuPage County. If after three (3) years, the area has not reached acceptance meetings shall be held to determine the future course of action. It is likely that in such a case that the maintenance and monitoring period will be extended.

- 1. The developer shall notify the Village of Lombard or DuPage County upon completion of plantings. 2. The Owner's Environmental Specialist shall inspect the plantings upon completion of all maintenance
- procedures and notify the Village of Lombard or DuPage County of the remedial actions taken.

3. Plantings shall meet the following minimum annual performance criteria. Areas which do not meet annual establishment standards as confirmed by the Village of Lombard or DuPage County shall be replanted and/or managed at developer's/owner's expense. Cover refers to uniform coverage within any square yard area.

- a) First full growing season:
- 90% cover of cover crop established.
- No bare areas (<10 percent vegetative cover) greater than two (2) square feet.</li>
- At least 25% of vegetation cover/coverage shall be native, non-invasive species.
- Invasive species control measures approved in the plan.
- b) Second full growing season: Full vegetative cover.
- At least 50% of vegetation cover/coverage shall be native, non-invasive species.
- Invasive species control measures approved in the plan.
- There shall be no bare areas greater than 2 square feet.
- c) Third through fifth full growing seasons: • At least 75% of vegetation cover/coverage per community (i.e., wet prairie areas) shall be native, non-invasive species.
- None of the three most dominant species may be non-native or invasive.
- Non-native species shall constitute no more than 25% relative aerial coverage (individually or cumulatively).
- Phragmites must comprise no more than 10 percent of the allowable weed coverage. Invasive species control measures approved in the plan.
- There shall be no bare areas greater than 2 square feet.
- The native planting areas shall have a minimum native C-value of 3.5 and a minimum native
- FQI value of 20.0.
- There shall be no more than 10 percent cover by non-native woody vegetation.
- 100% of installed woody plants shall be alive, healthy, and representative of the species. d) Invasive and non-native species, and non-native woody plant species not specified as part of the planting plan, shall be controlled by appropriate management practices. Invasive species for the purposes of this manual shall include, but not be limited too, the following:

American Silver-Berry (Elaeagnus commutata) Ash-Leaf Maple (Acer negundo) Asian Bittersweet (Celastrus orbiculatus) Black Swallow-Wort (Vincetoxicum nigrum) Garden Bird's-Foot-Trefoil (Lotus corniculatus) Black Locust (Robinia pseudoacacia) (Pyrus calleryana) Bradford Pear Brittle Waternymph (Najas minor) Bull Thistle (Cirsium vulgare) Lesser Burrdock (Arctium minus) Canadian Goldenrod (Solidago canadensis) Canadian Thistle (Cirsium arvense) Cattail species (Typha spp.) Chinese Yam (Discorea oppositifolia) Chinese Silver Grass (Miscanthus sinensis) Common Reed (Phragmites australis)

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### 4. Semi-annual monitoring shall be performed during each year of the three-year monitoring period and until final acceptance by the Village of Lombard or DuPage County. Springtime monitoring shall occur in late May/June; fall monitoring shall occur in August, September, or early October. Monitoring will involve meander surveys, tree/shrub counts, and photo-documentation of the wetland buffer and the wetland (restoration area and wetland enhancement area). Meander survey methodology will involve a review of at least 20 percent of each vegetative community (i.e., buffer, wetland) to take

- representative photographs and identify the following: a. all plant species (native and non-native) in each zone,
- b. the three most dominant species within each planting zone, c. the percent survival of installed woody species,
- d. the approximate percent ground cover by native species per zone,
- e. the percent ground cover by non-native or invasive species per zone, f. erosion and sedimentation problems,
- g. water level or drainage problems,
- h. areas larger than 2 square feet that are devoid of vegetation (i.e., less than 10 percent vegetative cover), and
- i. observations on specific management strategies necessary to achieve acceptance requirements.
- j. monitoring of stream and constructed in-stream structures to verify integrity, and to
- identify if repairs or other issues require addressing. 5. Annual monitoring reports shall be submitted to the Village of Lombard or DuPage County by January
- 31st of the following year. The report will contain a location map, a summary of annual monitoring observations, a description of management performed during the year, a summary of annual progress relative to acceptance standards, and a list of recommendations for management during the
- 6. A final compliance report and Long-Term Operation and Maintenance Plan shall be submitted certifying that the planting meets the performance criteria. Final acceptance and release shall be determined by the Village of Lombard or DuPage County upon inspection of the site to verify
- 7. Should the performance criteria not be met within the allotted time, the Village of Lombard or DuPage County shall require that the area be replanted and/or a remedial action plan be submitted for approval at developer's/owner's expense. A revised compliance report shall be submitted by the developer/owner's Environmental Specialist with follow-up inspection by the Village of Lombard or DuPage County shall demonstrate compliance with the performance criteria as a condition of release project sign off.

# **Maintenance Requirements**

Maintenance shall be completed until following final acceptance of the mitigation site by the Village of Lombard or DuPage County.

- 1) Prescribed burning may be completed, weather permitting, when conditions warrant or in year three, whichever comes first
- 2) Application of herbicide to control weedy or invasive species will be completed to control weeds and invasive species. A certified and licensed pesticide applicator shall select herbicide, which is non-toxic to animal and aquatic life, and shall apply the herbicide by the appropriate method, to prevent killing of desirable native species.

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3) Mowing will be completed several times the first growing season following seeding to minimize growth of weedy or invasive species. Mowing may also be completed in following years as a surrogate to prescribed burning if weather prevents a burn from occurring.

An annual report shall be submitted to the Village of Lombard or DuPage County by January 31st of the following year. The reports will include a discussion of the progress in meeting the vegetation success criteria (meander survey and FQI), and the proposed actions to deal with any shortfalls. Representative photographs of the restoration areas will be taken at the time of sampling will also be included in the reports. The report shall describe any deficiencies, or issues related to soil erosion and sediment control, weed coverage, or other identified issues. The report shall include remedial actions to be taken to address any identified deficiencies. Particular attention will be given to the progress of the vegetation at the end of the second full growing season, as the relative success of the plantings may be reasonably predicted at that time. The report shall describe expected work effort for the following year, including vegetation management tasks and any other identified remedial tasks.

### Long-Term Best Management Practice (BMP) and Buffer/Detention Pond Maintenance and Monitoring Program

The developer will be responsible for completion of maintenance and monitoring of the onsite best management practices (BMPs) to ensure they are functioning as desired for the life of the project. The onsite BMPs consist of naturalized stormwater management basins. The BMPs will require routine monitoring and maintenance. These maintenance and monitoring activities are described below.

# **Vegetative BMP Management Guidelines**

At least 2 growing season visits will be completed each year to evaluate the conditions and assess the functionality of the BMP and to assess the buffer/detention basin vegetation. An adaptive management plan shall be implemented to guide the planning and execution of action items:

Identify management issues (e.g. weed infestations)

- Identify management goals (e.g. weeds managed, native seeding) Determine management strategies available (e.g. herbicide, hand pulling, burning)
- Select appropriate management action (e.g. hand removal)
- Determine what will be monitored and how (e.g. establish a fixed point in field)
- Determine how change and success will be evaluated (e.g. absence of weeds one month or one year after removal)

# Carry out action (e.g. remove weeds)

Monitor results (e.g. revisit site to determine success of activities)

Assess previous management strategy and modify plan as necessary to adapt to current site

# **Return to Planning** – begin again, **Adapt** to new site conditions.

The activities completed shall conform to the following:

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Conform to all applicable state and federal regulations and herbicide label directions controlling

- the loading, mixing, use, storage, and containment of herbicides. Use only compounds registered and approved by EPA and IEPA.
- Use a Certified Pesticide Applicator to conduct all herbicide applications.
- Complete spray operations when meteorological conditions are favorable. • Use the lowest pressure, largest droplet size, and largest volume of water permitted by the
- herbicide label to obtain adequate treatment success.
- Choose the most effective herbicide that requires the least number of applications. • Choose the lowest effective rate of application.
- Use only those herbicides with aquatic labeling within no-spray buffer areas around water courses, when necessary. • Inspect and maintain herbicide application equipment.

Common Water-Hyacinth

Crack Willow

Crownvetch

Creeping-Jenny

**Curly Pondweed** 

Eurasian-Buttercup

European Barberry

Garlic-Mustard

Giant Hogweed

Hedge-Parsley

Japanese Hop

Kudzu

Leafy Spurge

Littleleaf Linden

Purple Loosestrife

**Reed Canary Grass** 

Reed Manna Grass

Seaside Goldenrod

Spotted knapweed

Tall Goldenrod

Tree-of-Heaven

Twinsisters

Watercress

Water-lettuce

Wild Parsnip

Winged Spindletree

Yellow Sweet-Clover

Teasel

Showy Fly-Honeysuckle

Rambler Rose

Russian Olive

Sandbar Willow

Ragweed

Japanese Barberry

European Buckthorn

Glossy False Buckthorn

Japanese Bristle Grass

Japanese Honeysuckle

Japanese-Knotweed

Japanese Stilt Grass

Kentucky Blue Grass

Morrow's Honeysuckle

Mother-of-the-Evening

Nodding Plumeless-Thistle

Greater Flowering-Rush

Eurasian Water-Milfoil

(Eichhornia crassipes)

(Lysimachia nummularia)

(Potamageton crispus)

(Berberis vulgaris)

(Rhamnus cathartica)

(Butomus umbellatus)

(Berberis thunbergii)

(Alliaria petiolata)

(Frangula alnus)

(Torilis spp.)

(Setaria faberi)

(Poa pratensis)

(Puereria montana)

(Lonicera morrowii)

(Hesperis matronalis)

(Euphorbia esula)

(Tilia cordata)

(Carduus nutans)

(Ligustrum spp.)

(Ambrosia spp.)

(Rosa multiflora)

(Glyceria maxima)

(Salix interior)

(Lonicera x bella)

(Dipsacus spp.)

(Solidago altissima)

(Ailanthus altissima)

(Nasturtium officinale)

(Lonicera tatarica)

(Pistia stratiotes)

(Pastinaca sativa)

(Euonymus alatus)

(Melilotus officinalis)

(Phalaris arundinacea)

(Elaeagnus angustifolia)

(Solidago sempevirens)

(Centaurea stoebe subsp. micranthos)

(Lythrum salicaria)

(Lonicera japonica)

(Humulus japonica)

(Reynoutria japonica)

(Microstegium vimineum)

(Rhodotypos scandens)

(Myriophyllum spicatum)

(Heracleum mantegazzianum)

(Salix fragilis)

(Securigera varia)

(Ficaria verna)

# **Long-Term Vegetative Performance Standards**

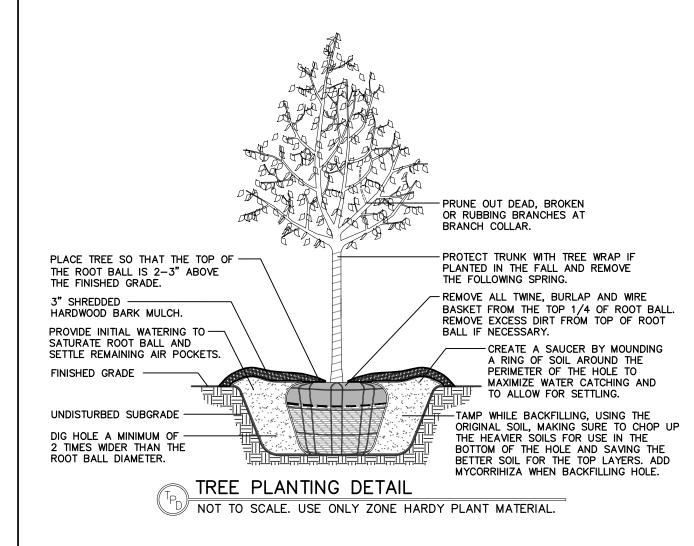
For the life of the development, the applicant, owner or their proxy shall perform maintenance and monitoring of the onsite best management basins with a goal of achieving and maintaining 80 percent native/non-invasive species within the native planted areas. This program shall include vegetation management activities, such as weeding (cutting, mowing, hand pulling, herbicide applications, and prescribed burns) reseeding/planting (as necessary), repair of eroded or damaged soil areas, removal of excess sediment, inspection and repair of all stormwater structures within the basins, as well as addressing other issues identified during the required monitoring.

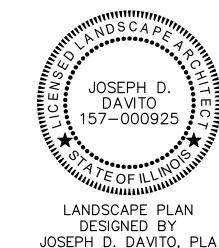
This document is being made part of the Village of Lombard or DuPage County permit action. This document shall be enforced for the life of the development. The Village of Lombard or DuPage County shall have the right to verify compliance with these requirements for the life of the development.

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SET PLANTS AT SAME LEVEL AS THEY WERE IN THE CONTAINER -PROVIDE INITIAL WATERING 3" SHREDDED HARDWOOD BARK -PREPARE PERENNIAL BED AT A MIN. DEPTH OF 1.5 SOIL MIX PM35 BY MIDWEST TIMES THE PERENNIAL TRADING COMPANY OR EQUAL. CONTAINER DEPTH MOUND BED 2-4" ABOVE -FINISHED GRADE FINISHED GRADE. BREAK UP ROOT MASS BY 4" SPADED EDGE HAND OR BY SLICING IT VERTICALLY -UNDISTURBED PERENNIAL PLANTING DETAIL NOT TO SCALE. USE ONLY ZONE HARDY PLANT MATERIAL.

PRUNE OUT DEAD, BROKEN REMOVE ALL TWINE AND BURLAP FROM THE TOP 1/4 OF ROOT BALL. REMOVE EXCESS DIRT FROM TOP OF PLACE SHRUB SO THAT THE TOP OF THE ROOT BALL IS 1-2" ROOT BALL IF NECESSARY. ABOVE THE FINISHED GRADE. CREATE A SAUCER BY MOUNDING A 3" SHREDDED -RING OF SOIL AROUND THE PERIMETER OF THE HOLE TO MAXIMIZE WATER HARDWOOD BARK MULCH. CATCHING AND TO ALLOW FOR SETTLING. PROVIDE INITIAL WATERING TO -FINISHED GRADE SATURATE ROOT BALL AND SETTLE REMAINING AIR POCKETS TAMP WHILE BACKFILLING, USING THE UNDISTURBED SUBGRADE ORIGINAL SOIL, MAKING SURE TO CHOP UP THE HEAVIER SOILS FOR DIG HOLE A MINIMUM OF 2 TIMES WIDER THAN THE USE IN THE BOTTOM OF THE HOLE ROOT BALL DIAMETER. ND SAVING THE BETTER SOIL FOR THE TOP LAYERS. ADD MYCORRIHIZA WHEN BACKFILLING HOLE. SHRUB PLANTING DETAIL NOT TO SCALE. USE ONLY ZONE HARDY PLANT MATERIAL.





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LANDSCAPE DETAILS

Prepared For: Prepared By:

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