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Prepared on behalf of:
Village of Orland Park

PINs:
27-09-402-043-0000
27-09-402-014-0000



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KAREN A. YARBROUGH

COOK COUNTY CLERK

DATE: 05/12/2022 10:54 AM PG: 1 OF 19

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COOK COUNTY, ILLINOIS RECORDING COVER SHEET

MONITORING AND MANAGEMENT PLAN AGREEMENT FOR NATURALIZED LANDSCAPE AREAS ("PLAN")

LEGAL DESCRIPTION:

BEING A SUBDIVISION OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 9, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, ILLINOIS

COOK COUNTY ASSIGNED ADDRESS: 9970 W. 151st, Orland Park, IL

PIN: 27-09-402-043-0000 and 27-09-402-014-0000

**After recording return to:
Recorder's Box 324**

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THIS INSTRUMENT WAS PREPARED BY:

SCOTT LUKEW
VILLAGE OF ORLAND PARK
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ORLAND PARK, IL 60462

AFTER RECORDING RETURN TO:

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[The above space for Recorder's Office]

Mini Academy 2, 9970 W. 151 St, Orland Park, Il

MONITORING AND MANAGEMENT PLAN AGREEMENT FOR NATURALIZED LANDSCAPE AREAS ("PLAN")

SECTION 1.0 GENERAL

1.1 CONTACT INFORMATION

Bozena Buniowska, 13116 W. Pin Oak Dr., Homer Glen, Il., 60491 will be responsible for the timely execution of all near and long-term maintenance activities within the naturalized landscape, unless otherwise noted, as set forth in this Plan for the naturalized landscape areas located at 9970 W. 151st. Street, Orland Park, Il., ("Subject Property"). The following party should be contacted regarding management activities and is the party responsible for compliance with this Plan:

Names, addresses, contacts, and telephone numbers of the property owner(s).

Bozena Buniowska, 13116 W. Pin Oak Dr., Homer Glen, Il., 60491

Names, addresses, contacts, and telephone numbers of the party or parties legally responsible for operations and maintenance:

Bozena Buniowska, 13116 W. Pin Oak Dr., Homer Glen, Il., 60491

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1.3 LETTER OF CREDIT

The approved letter of credit amount for the naturalized landscape portion of this project is \$52,468.02, as approved by the Development Services Department on 12 / 31 / 2021.

1.3 LOCATION INFORMATION

MINI ACADEMY 2, SITE IMPROVEMENTS PLANS prepared by HAEGER ENGINEERING

1.4 PROHIBITED ACTIVITIES

This section outlines various activities restricted or prohibited within areas of naturalized landscaping except as needed to achieve and maintain a naturalized landscape consistent with the approved plan as directed by a natural landscape maintenance specialist:

- dumping of yard waste or debris
- replacement of approved vegetation with non-approved materials
- construction or placement of structures
- application of pesticides, fertilizer, or herbicides
- mowing other than for meeting specific management goals
- commercial, industrial, agricultural, residential developments, buildings, or structures, including but not limited to signs, billboards, other advertising material, or other structures
- removal or destruction of trees or plants, moving, draining, plowing, mining, removal of topsoil, sand, rock, gravel, minerals or other material
- operation of snowmobiles, dune buggies, motorcycles, all-terrain vehicles or any other types of motorized vehicles.

1.5 ESTIMATED EXPENSES

Owner shall submit documentation of the estimated routine and non-routine expenses as well as the source(s) of funding for continued inspection, operation and maintenance.

1.6 HOMEOWNERS ASSOCIATION/BUSINESS OWNERS ASSOCIATION

If an owner or business owners association ("Association") is the party responsible for compliance with this Plan, the Association shall include language in its governing documents authorizing the collection of fees for the naturalized landscape maintenance and outline the process for corrective action(s) to be taken, if necessary.

1.7 OBLIGATIONS TO RUN WITH THE SUBJECT PROPERTY

This Plan shall be binding upon and inure to the benefit of the parties hereto, successor owners of record of the Subject Property, assignees, lessees and upon any successor municipal authorities of said Village and successor municipalities.

1.8 AUTHORITY TO SIGN

Each Party, and the person signing on behalf of each Party, represents that the person signing this Plan has the authority to execute this document and thereby bind the Party hereto on whose behalf the person is signing.

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1.9 SEVERABILITY

If any provision of this Plan is held invalid by a court of competent jurisdiction or in the event such a court shall determine that the Village does not have the power to perform any such provision, such provision shall be deemed to be excised here from and the invalidity thereof shall not affect any of the other provisions contained herein, and such judgment or decree shall relieve Village from performance under such invalid provision of this Plan.

1.10 AMENDMENTS TO COVENANTS AND RESTRICTIONS

Any amendment to covenants or restrictions pertaining to the Subject Property must be submitted to the Village for approval if the amendment(s) alters the site beyond the original condition.

1.11 AMENDMENTS TO MANAGEMENT ACTIONS

Potential issues and management requirements are likely to change over time. Owner may have additional responsibilities which may include, but are not limited to, access restriction enforcement (e.g. fly dumping, fishing, recreational vehicles) and wildlife management (e.g., including control of carp, muskrats, and geese). Owner and Village will evaluate the need for other management actions when performing other maintenance visits and inspections.

SECTION 2.0 NEAR-TERM MONITORING AND REPORTING

2.1 RESPONSIBLE PARTIES

Bozena Buniowska, 13116 W. Pin Oak Dr., Homer Glen, Il., 60491 ("Owner") will be responsible for funding and implementing a near-term monitoring and management plan (typically three years in length) and for the long-term monitoring and managements set forth in Section 4.0 for establishing a naturalized landscape area(s) associated with the proposed Mini Academy2, day care facility stormwater management area. If the performance standards are not achieved after the initial three-year monitoring and management period, then annual monitoring and management activities shall continue until the minimum performance standards are met. The Owner may elect to contract management and maintenance services to a third party to ensure proper implementation in accordance with the following standards.

2.2 MONITORING METHODOLOGY

Owner will monitor areas of naturalized landscaping following methodologies as outlined herein. Owner will perform meander survey monitoring on an annual basis for a minimum of three years after planting is substantially complete, or until the naturalized landscape area(s) in question is/are accepted by the Village. Annual vegetation monitoring will occur in August, September, or early October. Meander survey methodology will involve taking five to 10 representative site photographs and performing a review of at least 20 percent of each vegetative community to identify the following:

- a. the limits of all vegetation areas by general community type and dominant species within each planting zone (e.g., wetland and prairie zones),
- b. all plant species (native and non-native) in each planting zone,
- c. the approximate percent ground cover by native species within each planting zone,
- d. the percent ground cover by non-native or invasive species in each planting zone,
- e. erosion and sedimentation problems,
- f. water level or drainage problems,
- g. areas of bare soil larger than one square-meter, and
- h. observations on specific management strategies necessary to achieve acceptance requirements.

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2.3 REPORTING REQUIREMENTS

Upon completion of landscape installation, the Owner will notify the Village that the natural landscape area installation has been installed as per the approved landscape plan. Owner will provide nursery packing lists indicating the species and quantities of materials installed with this notice.

In addition, the Owner will submit an annual monitoring report to the Village of Orland Park by February 28th of the following year evaluating the progress of the naturalized landscape toward design goals. The report will contain a location map, a summary of annual monitoring observations, a description of management performed during the year, a tabular summary of annual progress relative to acceptance standards, and a list of proposed management activities during the upcoming year.

2.4 PERFORMANCE STANDARDS

Satisfactory landscape development, associated with naturalized vegetation in the stormwater facility will be based on the following items. If these standards are met at the end of the initial near-term monitoring and management period, as determined by the Village, the Village will approve the naturalized landscape areas and return the letter of credit. If these standards are not met at the end of the initial near-term monitoring and management period, the time period will be extended until the performance standards are met and the letter of credit will be held until the performance standards are met.

First Year:

- First Year: Within three months of seed installation (or three months after the start of the growing season following dormant seeding), at least 90 percent of the seeded area, as measured by aerial cover, will be vegetated or otherwise stabilized against erosion. The cover crop may be included in this measurement.

Second Year:

- Second Year: By the end of the second growing season, the planted areas shall have a minimum of 50 percent ground cover by species in the approved plant list and/or native species with native coefficient of conservation (C-) values of 2 or greater (per Swink and Wilhelm 1994 or more current version).

Third Year:

- Third Year: By the end of the third growing season, the planted areas (e.g. wetland, prairie) shall have a minimum of 75 percent ground cover and emergent areas shall have minimum of 35 percent ground cover (by species in the approved plant list and/or native species with native coefficient of conservation (C-) values of 2 or greater. The cumulative plant list, across all vegetative communities shall have a minimum native floristic quality index (FQI) of 20 and a (C-) value of 3.5 or greater.

Second and Third Year Additional Performance Standards:

- Naturalized landscapes shall not have more than one square-meter devoid of vegetation, as measured by aerial coverage.
- Seeded/planted areas (Excluding emergent zone) shall have no rills or gullies greater than four inches wide by four inches deep.
- Areas seeded to turfgrass or low-maintenance turf shall have 95 percent ground cover.

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- Installed woody materials within the naturalized landscape area shall be alive, in healthy condition, and representative of the species.
- No more than 25 percent of any specific plant community shall be individually or collectively dominated by non-native or weedy species.
- None of the three-most dominant species may be non-native or weedy, including but not limited to the following:

Woody Plants

<i>Acer negundo</i>	Box elder
<i>Alnus glutinosa</i>	Black Alder
<i>Elaeagnus umbellata</i>	Autumn olive
<i>Euonymus alatus</i>	Burning bush
<i>Lonicera</i> spp.	Honeysuckle
<i>Rhamnus</i> spp.	Buckthorn
<i>Robinia pseudoacacia</i>	Black locust
<i>Rosa multiflora</i>	Multiflora rose
<i>Ulmus pumila</i>	Siberian elm

Broadleaf Plants

<i>Alliaria petiolata</i>	Garlic mustard
<i>Ambrosia</i> spp.	Ragweed
<i>Arctium</i> spp.	Burdock
<i>Carduus nutans</i>	Musk thistle
<i>Centaurea maculosa</i>	Spotted knapweed
<i>Cirsium arvense</i>	Canada thistle
<i>Conium maculatum</i>	Spotted hemlock
<i>Coronilla varia</i>	Crown vetch
<i>Daucus carota</i>	Wild carrot
<i>Dipsacus</i> spp.	Teasel
<i>Euphorbia escula</i>	Leafy spurge
<i>Hesperis matronalis</i>	Dame's rocket
<i>Lotus corniculatus</i>	Bird's-foot trefoil
<i>Lythrum salicaria</i>	Purple loosestrife
<i>Medicago</i> spp.	Alfalfa/medick
<i>Melilotus</i> spp.	Sweetclover
<i>Pastinaca sativa</i>	Wild parsnip
<i>Polygonum cuspidatum</i>	Japanese knotweed
<i>Solidago altissima</i>	Tall goldenrod
<i>Solidago sempervirens</i>	Seaside goldenrod
<i>Trifolium</i> spp.	Clover
<i>Typha</i> spp.	Cattails

Grass-like Plants

<i>Agropyron repens</i>	Quackgrass
<i>Bromus tectorum</i>	Cheatgrass
<i>Bromus japonicus</i>	Japanese brome
<i>Bromus inermis</i>	Smooth brome

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<i>Phalaris arundinacea</i>	Reed canary grass
<i>Phragmites australis</i>	Common reed
<i>Poa pratensis</i>	Kentucky bluegrass

- Common Reed (*Phragmites australis*) is an aggressive invasive species that is especially problematic in the Orland Park region and is extremely difficult to control once established. Therefore, particular attention should be made for the early detection and eradication of Common Reed across the entire project property.
- Cattails (*Typha* spp.) do not count towards the 25 percent weed criterion provided they represent no more than 20 percent cover.

SECTION 3.0 NEAR-TERM MANAGEMENT FOR NATURALIZED LANDSCAPES

Near-term management for naturalized landscapes associated with the MINI ACADEMY 2 will involve monitoring and management to promote germination and establishment of desired plants and to prevent the establishment of invasive species. The least costly and most effective action for controlling invasive species is their early identification and eradication. The following is the near-term management plan that Owner shall follow for naturalized landscape areas associated with the MINI ACADEMY 2.

3.1 NEAR-TERM MANAGEMENT TASKS

For a minimum of three years after installation, Owner will manage naturalized landscapes on a regular basis to ensure successful establishment. The following management tasks provide a reasonable approach to most conditions likely to be encountered during the establishment of naturalized habitat. However, site characteristics can significantly influence how management and maintenance techniques are implemented. Therefore, vegetation management actions may differ from the tasks and frequencies indicated below based on specific recommendations from a qualified native landscape restoration specialist.

3.1.1 Undesirable Plant Control

The Owner acknowledges that it is best to perform corrective actions for vegetation management early in the revegetation effort. Owner will manage aggressive and/or non-native species such that their presence and density does not threaten the attainment of performance standards.

Depending on the type of plant being targeted, control of undesirable plant species may involve removing all above-ground and below-ground stems, roots, and flower masses prior to development of seeds. Weeding practices will avoid damaging the native plantings and be timed to prevent development of weed seeds. Therefore, the ability to differentiate between weeds and native seedlings is important and must be conducted by personnel with experience in the establishment of native vegetation.

Owner shall use various means of weed control, as appropriate, and may include mechanical control, chemical control, and/or biological control.

Mechanical Control: Mechanical control of nuisance plant species typically includes cutting, mowing and/or the digging up individual plants by hand. In many cases, cutting or mowing a plant before its seeds mature will minimize further spread. Cutting or mowing close to the ground surface with a weed-eater or hand-scythe can be an effective means of control for species such as sweet clover, various thistles, and ragweed. For general mowing of swaths of vegetation, mowers will be set to a height of 12+

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inches above the ground surface or to a height that treats weedy species yet minimizes impacts on desirable plants.

For species such as common reed, purple loosestrife, Canada thistle, and reed canary grass, mowing actually encourages the spread of underground stems. Hand digging these species and woody undesirables such as multiflora rose can result in control if there are fewer than 100 plants throughout the entire site. Where more than 100 individuals of such plants are present, chemical control will be the primary method of control. (Note: Pulling and digging out weeds generally is discouraged because the soil disturbance can uproot desirable plants and encourage the growth of more weeds.)

Chemical Control: When employed in conjunction with prescribed burning and mechanical control, the judicious use of herbicides can be an important component of management programs for controlling weeds. Some weeds such as purple loosestrife, buckthorn (*Rhamnus* spp.) and honeysuckle (*Lonicera* spp.), reed canary grass, common reed, sandbar willow, and cattails are controlled more effectively by chemical treatment than by most mechanical control measures.

For aggressive weeds, an appropriate herbicide will be applied. Because of the potential for damage to native plant communities, the use of preventative herbicides will be limited to problem areas and problem species for which manual control is ineffective. Aquatic herbicides will not be used to treat algal blooms.

Glyphosate herbicide (trade name: Rodeo or Roundup) is often recommended for use in naturalized landscape areas. Other herbicides such as Trans line, Plateau, and Garlon are also used. The application of herbicides will be performed only by persons licensed or certified in the State of Illinois for pesticide/herbicide application. Herbicide use will be in strict compliance with all application rates, procedures, warning labels and applicable codes, standards and best management practices.

Generally, wick application will be preferred over spray application, which is less selective. Wicking applies herbicide only to individual plants, typically using hand application or pipe dispersal methods. The hand wicking or "glove of death" method for specifically targeting weedy plants while protecting higher quality plants in sensitive habitats. Pipe dispersal methods are also appropriate for targeting weedy plants while avoiding desirable plants growing alongside them by using a canvas-covered, perforated, chemical filled PVC pipe. Trained personnel walk the area, swinging pipe (commonly 8-foot long) from side to side above the native plants but deliberately striking invasive species. The pipe strikes and bends the weeds, smearing them with the chemical and destroying them within a few days. If used, spray applications will not occur on gusty days because non-target species could be affected.

Biological Control: An alternative to chemical treatment, use of biological controls for purple loosestrife will be considered provided site conditions are appropriate to support and maintain the insect population. Through this method, host-specific insects (one a root infesting weevil; others are leaf-eating chrysomelid beetles) are released to feed on the roots or leaves of purple loosestrife. If purple loosestrife becomes abundant, biological control can prove a cost-effective means of management.

3.1.2 Wildlife Management

Nuisance species such as ducks, geese or muskrats often forage on young emergent wetland plants. Herbivory fencing may be installed to protect the wetland plants during establishment. Herbivory fencing typically consists of chicken wire, netting or string to deter waterfowl or other species from areas where native plugs have been installed. The fencing can be removed once the vegetation is well established. Additional control of nuisance

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species must be performed if monitoring indicates such species are responsible for poor plant establishment and performance. The method of control will be determined by a native landscape restoration specialist.

It is generally accepted that the long-term use of even the most benign pesticides has effects on wildlife that are still only barely researched. Therefore, Owner will not use pesticides broadly or routinely in any naturalized landscape other than for mosquito abatement (should that be necessary). Owner will use pesticides only for specific and localized problem areas as determined by a native landscape restoration specialist with experience in installation and development of native plant communities, should such areas occur. Standard application procedures and precautions for chemical application in wetland areas will be followed.

3.1.3 Fertilizer Application

For ecological reasons, a conservative approach to the application of fertilizers will be taken. Turf management chemicals will not be used within areas of naturalized plantings unless specifically prescribed by and per the direction of a native landscape restoration specialist. If used, special care will be taken to not apply fertilizers when inclement weather is forecast.

3.2 SCHEDULE OF NEAR-TERM MANAGEMENT ACTIVITIES

Appendix 1, titled "Near-Term Management & Management Tasks for Naturalized Landscapes", and the following text provide the schedule of management and management tasks for installation and establishment of naturalized landscape areas. The actual schedule and tasks performed in any given year may differ from those indicated based on specific recommendations from a natural landscape restoration specialist.

3.2.1 Inspection Schedule – Near Term Activities

Inspections will be made as detailed in Appendix 1, which must be attached to this document prior to document approval.

3.2.2 First-Year Management Actions

To prevent weed seed development, Owner will mow to a height of 6 inches when vegetation reaches a height of 12 inches. (Note: Weekly mowing at turf lawn height will **NOT** be performed, as mowing too often can set-back native planting development.) Owner must use a rotary or flail-type mower to finely chop the cut material. If clippings shade the ground or smother the remaining plants, Owner will bag the clippings for off-site disposal or otherwise dispersed. The Owner must time the last mow so that vegetation can grow to a height of eight to 10 inches before winter.

Owner will avoid weeding practices that damage the native plantings and will time the practices to prevent development of weed seeds. For aggressive weeds, herbicide will be selectively applied (e.g., wick application, not spraying). Turf management chemicals will not be used on native plantings except as directed by a Village-approved landscape restoration specialist.

Debris and litter (e.g., paper, plastic, metal, concrete, grass clippings, brush, etc.) will be removed every other month between 1 March to 31 October to prevent floating materials from clogging the outlet. Debris will be disposed of at an appropriate off-site trash receptacle.

Other potential responsibilities may include, but are not limited to, access restriction enforcement, insect/pest control, erosion repairs, and wildlife management (e.g., control of carp, muskrats, geese, etc. as needed). The

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Owner will determine the need for other management actions on a quarterly basis when performing general maintenance visits for dam embankments and control structures.

3.2.3 Second-Year Management Actions

During the second growing season, Owner will mow the seeded area as close to the ground as possible in early spring and the cuttings raked or bagged. If annual weeds remain a problem, Owner will perform an additional mow during mid- to late June, with the mow height set to 12 inches.

Weed management will emphasize control of biennial and perennial weeds. Biennial weeds targeted for control include sweet clovers (*Melilotus* spp), Queen Anne's lace (*Daucus carota*), and teasel (*Dipsacus* spp.). Proper weed control may require multiple treatments, and Owner will perform the treatments at times that will provide maximum treatment effectiveness.

Other management practices will include debris and litter removal, access restriction enforcement, and erosion control and repairs (as needed). Additional management tasks may include insect/pest control, reseeding/replanting in targeted areas, wildlife management as determined on a quarterly basis. If there is sufficient fuel, a prescribed burn may be attempted at the end of the second growing season, provided Owner obtains proper permits from the Illinois Environmental Protection Agency and provides notice to the Village and local authorities.

3.2.4 Third-Year Management Actions

Typical management in the third growing season will involve the use of prescribed fire in combination with mechanical and chemical methods for controlling aggressive biennial and perennial weeds.

Owner will obtain a permit from the Illinois Environmental Protection Agency, Cook/Will County and Village prior to conducting a prescribed burn. Burns must be performed by a qualified contractor. All other required permits need to be in place before the Village will issue a permit. The burn will occur between mid-October and April as weather and site conditions permit. Prior to conducting a prescribed burn, Owner must provide notice to the Village and local authorities. If prescribed burning is not practical, Owner will substitute mowing in late fall or very early spring. The burn-replacement mow will be done at a height of two inches, with cut material bagged for off-site disposal.

As in the first two years, Owner will continue management of aggressive weeds. Other management practices will include debris and litter removal, access restriction enforcement, and erosion control and repairs (as needed). Additional management tasks may include insect/pest control, reseeding/replanting in targeted areas, wildlife management and the Owner will determine the need for other management actions, on a quarterly basis, when performing general maintenance visits for dam embankments and control structures.

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SECTION 4.0 LONG-TERM MANAGEMENT FOR NATURALIZED LANDSCAPES

Traditional turfgrass maintenance practices are not appropriate for naturalized landscapes. Owner must provide proper management which shall be performed by parties experienced in native landscape maintenance.

4.1 LONG-TERM MANAGEMENT TASKS

Long-term maintenance of naturalized landscapes involves significantly less effort and cost than for landscapes vegetated with traditional turfgrass. Routine maintenance activities for naturalized landscapes include debris management, structural inspections, vegetation maintenance, and pest species management. Non-routine maintenance and management actions are performed as site-specific conditions warrant and include sediment/pollutant removal, structure replacement, and replanting. **Appendix 2, titled Long-Term Management & Management Tasks for Naturalized Landscapes,** presents the schedule for typical activities associated with long-term management of naturalized landscapes.

4.1.1 Debris and Litter Management

Owner shall remove debris and litter (e.g., paper, plastic, metal, concrete, grass clippings, brush, etc.) every other month between 1 March to 31 October and dispose of it at an appropriate off-site trash receptacle.

4.1.2 Structural Management

Owner will inspect water control structures quarterly and within 24 hours of each major rainstorm (>1 inch rainfall). Inspections will include an evaluation on the stability of the outlet, embankments, and inlets. Observations will be made on the presence and extent of erosion, lack of vegetation, or other problems such as soil cracking, the outlet/inlet structure degradation, sink holes, or wet areas on the slopes. An engineer will perform or participate in these inspections.

Capture of sediment and pollutants eventually results in a decrease in pool volume and/or water quality in a stormwater facility and sediments need to be removed. Because each facility is different, there are no set timeframes for sediment/pollutant removal. The need for sediment removal is expected when the pool volume is reduced by 15 to 20 percent of the design volume.

4.1.3 Vegetation Management

Long-term management actions emphasize regular prescribed burning, accompanied by periodic herbicide treatment, mowing, or a combination of these practices. Accurate plant identification is essential. The type of vegetation management will be based on recommendations from a native landscape restoration specialist.

Prescribed Burning: If possible, established naturalized landscapes should be burned every two to three years or as directed by a landscape restoration specialist/ecologist. Large areas can be divided into management sections and burned on a rotational basis, with only a portion burned each year and the entire area burned over a three-year period. The timing of the burn should be determined based on weather conditions and management goals as recommended by the landscape restoration specialist/ecologist.

A permit must be obtained from the Illinois Environmental Protection Agency prior to conducting a prescribed burn. The burn should occur between mid-October and April as weather and site conditions permit. Burning should only be conducted by a qualified burn contractor experienced in grassland fire control and only upon receipt of a permit from the Illinois Environmental Protection Agency. Prior to conducting a prescribed burn, Owner must provide notice to the Village and local authorities. If

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prescribed burning is not practical, Owner will mow in late fall or very early spring to substitute for burning. The burn-replacement mow will be done at a height of two inches, with cut material bagged for off-site disposal.

Weed Management: Aggressive plants can overtake naturalized landscapes in the absence of management intervention. The “worst offenders” typically include purple loosestrife (*Lythrum salicaria*), cattails (*Typha* spp.), bush honeysuckles (*Lonicera* spp.), buckthorn (*Rhamnus* spp.), multiflora rose (*Rosa multiflora*), black locust (*Robinia pseudoacacia*), teasel (*Dipsacus* spp.), garlic mustard (*Alliaria petiolata*), wild parsnip (*Pastinaca sativa*), thistles (*Cirsium* and *Carduus* spp.), common reed (*Phragmites australis*), and reed canarygrass (*Phalaris arundinacea*).

Owner will perform mechanical, chemical, or biological control of these and other aggressive weeds as directed by the native landscape restoration specialist.

Mechanical Control — Mechanical control of nuisance plant species typically includes mowing and/or the digging up individual plants by hand.

The timing and height of the mow depends on the species being controlled but typically is between 12 to 18 inches high. Owner will use a rotary or flail mower to chop the cut material into fine pieces that will not smother native plants.

Hand pulling or digging of these species and woody undesirables can provide control if there are fewer than 100 plants.

Chemical Control — Owner will limit use of preventative herbicides to selected problem areas with a dominance of plant species that do not respond well to prescribed burning and/or mechanical control measures.

Herbicide application must be performed by a licensed professional applicator in strict compliance with all warning labels and applicable codes, standards and best management practices.

Herbicides will be applied selectively (e.g., wick application rather than spraying).

Biological Control — Special attention will also be given to purple loosestrife control, should it occur on the site. Where the plant is abundant, biological control can prove a cost-effective means of management. Through this method, host-specific insects are released to feed on the roots or leaves of purple loosestrife.

Supplemental Planting/Revegetation: Remedial actions may be needed as site conditions warrant. Such actions may include spot reseeding. Installation of supplemental plugs and/or seed using species in the approved mix (or if approved by the Village, with modifications) must be performed if any of the following circumstances exist: 1) more than half of the area of emergent plantings does not establish or persist; 2) the slope has any area greater than 0.25 square-meter in size devoid of vegetation; 3) the shoreline has any area more than five feet in length devoid of vegetation; or 4) any area (regardless of size) is actively eroding.

Except for the cover crop, Owner will use seed from native species with an emphasis on establishment of the grass matrix, which will support prescribed burn management. A native landscape management

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specialist must determine the type and quantity of seeds based on site-specific conditions. Owner will use a cover crop when seeding bare areas, with seed oats comprising the primary cover crop species. If used, annual ryegrass will be applied at a rate not to exceed 5 lbs/ac.

4.1.4 Pesticide and Fungicide Use

Pesticides will not be used broadly or routinely. Instead, Owner will use pesticides at specific and localized problem areas. Owner will exercise particular care in the areas near or directly tributary to surface waters. Owner will follow standard application procedures and precautions. Insecticides and fungicides are generally unnecessary. If public perception or the identification of a specific mosquito problem warrants the use of insect controls, Owner will consider biological measures. This could include stocking a wet basin with fish that feed on mosquito larvae and/or the use of BTI (*Bacillus thuringiensis israelensis*) to selectively kill mosquito larvae. Habitat structures also could be installed to encourage the nesting and feeding of purple martins, bats, or other insectivorous wildlife.

4.1.5 Fertilizer Use

For ecological reasons, turf management chemicals will not be used on naturalized plantings except as directed by a native landscape restoration specialist.

4.1.6 Other Management Actions

When properly installed and established, naturalized landscapes typically require less management and maintenance than conventional landscapes. However, naturalized landscapes are not maintenance free. Therefore, a budget for long-term management activities should be established to protect the investment that has been made in the naturalized areas.

4.2 SCHEDULE OF LONG-TERM MANAGEMENT ACTIVITIES

Appendix 2, titled "Long-Term Management & Management Tasks for Naturalized Landscapes", provides the schedule of management and maintenance tasks for installation and establishment of naturalized landscape areas. The actual schedule and tasks performed in any given year may differ from those indicated based on specific recommendations from a natural landscape restoration specialist.

4.2.1 Inspection Schedule – Long-Term Activities

Inspections will be made as detailed in Appendix 2, which **must** be attached to this document prior to document approval.

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5.0 APPROVAL

VILLAGE OF ORLAND PARK

Approved By: 

Printed Name: Scott Lueken

Title: Senior Engineer

Date: 12/31/2021

PETITIONER/OWNER

Submitted By: Bozena Buniowska

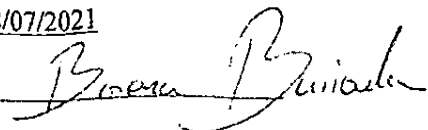
Printed Name: Bozena Buniowska, Mini Acad. 2

Property Address: 9970 W. 151st. St. Orland Park

Contact Phone: 708-809-3220

Contact Email: bozenabuniowsak@gmail.com

Date: 08/07/2021

Signed: 

ATTACHMENTS TO THIS DOCUMENT

- Appendix 1 – Near-term Management & Management Tasks for Naturalized Landscapes (included)
- Appendix 2 – Long-term Management & Management Tasks for Naturalized Landscapes (included)

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**Mini Academy2, 9970 W, 151st. St. Orland Park, IL Appendix 1
Near-term Monitoring & Management Tasks for Naturalized Landscapes.**

Activity	Calendar																								
	2x/month	Monthly	Every other month	Quarterly	Semi-annual	Annual	After major storms *	As needed	Year 1	Year 2	Year 3	J	F	M	A	M	J	J	A	S	O	N	D		
Debris/Litter Management																									
Remove trash (e.g., paper, plastic, brush, grass clippings, etc.) from inlet/outlet structures, basin slopes, and bottom and dispose in appropriate off-site location.		X					X		X	X	X														
Stormwater Structure Management																									
Perform inspection of control structure/spillway and clean-out/repair and dispose of debris in an appropriate off-site location.	X (until stable)				X				X	X	X														
Inspect basin/pond slopes and embankments.		X					X		X	X	X														
Perform corrective maintenance any time the pond takes longer than design time to return to +6 inches of NWL.												X	X	X	X	X	X	X	X	X	X	X	X	X	X
SESC Management																									
Maintain SESC devices in functional condition at all times and correct deficiencies immediately.									X			X	X	X	X	X	X	X	X	X	X	X	X	X	X
Conduct inspection within 24 hours of 1" storm event.							X		X																
Repair damage to slopes/embankment, including undercut or eroded areas if 1.0 sq. m. in size or 5 lin. ft. or 4 in x 4 in wide or greater.												X	X	X	X	X	X	X	X	X	X	X	X	X	X
Repair and revegetate eroded areas.													X	X	X	X	X	X	X	X	X	X	X	X	X
Vegetation Management																									
General Weed Management:																									
Control invasive/non-invasive weeds as appropriate to each species. This may require different treatment times for different plant species. Treatment mechanisms may include mowing, hand cutting, prescribed burning, herbicide application, or a combination of methods. Species include but are not limited to the following:																									
Buckthorn																									
Bush honeysuckle																									
Cattails																									
Common reed																									
Purple loosestrife																									
Reed canarygrass																									
Sweet Clover																									

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Activity	Calendar																							
	2x/month	Monthly	Every other month	Quarterly	Semi-annual	Annual	After major storms *	As needed	Year 1	Year 2	Year 3	J	F	M	A	M	J	J	A	S	O	N	D	
General Weed Management CONT.																								
Thistles								X								X							X	
Teasel																X							X	X
Prescribed burning																								
Have a qualified burn contractor conduct prescribed burning as fuel and weather conditions allow. If conditions prevent burning, conduct a high mow the following growing season.						X										X	X	X					X	X
Mowing																								
Conduct variable-height mowing to prevent weed seed production.		X						X								X	X	X						
Conduct variable-height mowing to prevent weed seed production.								X								X								
Conduct single-season mow in place of prescribed burning.								X								X								X
Clearing/Removal																								
Remove wetland plants killed by sediment build up to prepare bed for replanting. Dispose of material at an appropriate off-site location.																X	X							X
Replanting																								
Replace/supplement wetland and upland vegetation to meet performance standards.								X								X	X							
Other Management Actions																								
Manage wildlife and control mosquitos.																X	X	X	X	X	X	X	X	X
Vegetation Monitoring																								
Installation and Establishment																								
Conduct routine vegetation monitoring for compliance with performance standards, note progress of vegetation development and presence and extent of invasive plants.						X																		X
Reporting																								
Installation																								
Submit installation documentation within 10 days of completing landscape work.																								X
Establishment																								
Prepare and submit to village an annual monitoring report.																								X
Growing Season: 1 March to 31 October																								
* Major Storms > 1 inch within a 24-hour period.																								

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Mini Academy 2, 9970 W 151st, St. Orland Park, IL, Appendix 2.
 Long-term Monitoring & Management Tasks for Naturalized Landscapes.

Activity	Schedule																					
	Frequency					Calendar																
	Monthly	Every other month	Quarterly	Semi-annual	Annual	As needed	After major storms *	Every 2 to 3 years	Every 5 to 10 years	J	F	M	A	M	J	J	A	S	O	N	D	
Debris/Litter Management																						
Remove trash (e.g., paper, plastic, brush, grass clippings, etc.) from inlet/outlet structures, basin slopes, and bottom and dispose in appropriate off-site location.																						
Structural Management																						
Perform structural inspection of control structure/spillway and clean-out/repair and dispose of debris in an appropriate off-site location.			X																			
Inspect basin/pond slopes and embankments.			X																			
Repair damage to slopes/embankment, including undercut or eroded areas if 1 m ² in size or 5 lin. ft. or 4 in x 4 in wide or greater.																						
Perform corrective maintenance any time a basin takes longer than design time to return to +6 inches of NWL.																						
Remove sediment and return basin to original grades when plants are choked with sediment, pool volume has become significantly reduced (>20 percent), or basin becomes eutrophic.																						
Vegetation Management																						
General Weed Management																						
Control invasive/non-invasive weeds as appropriate to each species. This may require different treatment times for different plant species. Treatment mechanisms may include mowing, hand cutting, prescribed burning, herbicide application, or a combination of methods. Species include but are not limited to the following:																						
Buckthorn																						
Bush honeysuckle																						
Cattails																						
Common reed																						
Purple loosestrife																						

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Activity	Schedule																					
	Frequency						Calendar															
	Monthly	Every other month	Quarterly	Semi-annual	Annual	As needed	After major storms *	Every 2 to 3 years	Every 5 to 10 years	J	F	M	T	W	Th	F	S	S	O	N	D	
General Weed Management CONT.																						
Reed Canarygrass																						
Sweet Clover						X					X	X	X							X	X	
Teasel						X																
Thistles						X																
Prescribed burning																						
Have a qualified burn contractor conduct prescribed burning as fuel and weather conditions allow. If conditions prevent burning, conduct a high mow the following growing season.																						
							X														X	X
Mowing																						
Conduct a high mow (12 inches) to prevent weed seed production.																						
						X																
Conduct single-season mow in place of prescribed burning.																						
						X																X
Clearing/Removal																						
Remove wetland plants killed by sediment build up to prepare bed for replanting and dispose of at an appropriate off-site location.																						
						X																X
Replanting																						
Install supplemental plugs and/or seed when a) more than half of the emergent plantings do not persist, b) the slope has any area greater than 1.0 sq. m. devoid of vegetation, c) the shoreline has any area more than 5 ft long devoid of vegetation, or d) any area is actively eroding.																						
						X																X
Other Management Actions																						
Review inspection program and checklists to determine if more detailed inspections or other information are needed, to determine if fees cover maintenance costs and to update phone numbers and addresses of inspectors, contractors, etc.																						
						X																
Maintain and upkeep fencing, refresh planting beds, enforce access restrictions, etc.																						
						X																
Manage wildlife and control mosquitos.																						
						X																

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Activity	Schedule																							
	Frequency						Calendar																	
	Monthly	Every other month	Quarterly	Semi-annual	Annual	As needed	After major storms *	Every 2 to 3 years	Every 5 to 10 years	J	F	M	T	W	T	F	S	S	O	N	D			
Vegetation Monitoring Conduct more formal vegetation assessment (e.g., contract a specialist to evaluate status of vegetation development, determine the presence and extent of invasive plants, make recommendations for management, and prepare a status report).																								
Reporting Prepare and submit to Village a periodic monitoring report.																								
Growing Season: 1 March to 31 October																								
* Major Storms > 1 inch within a 24-hour period.																								

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