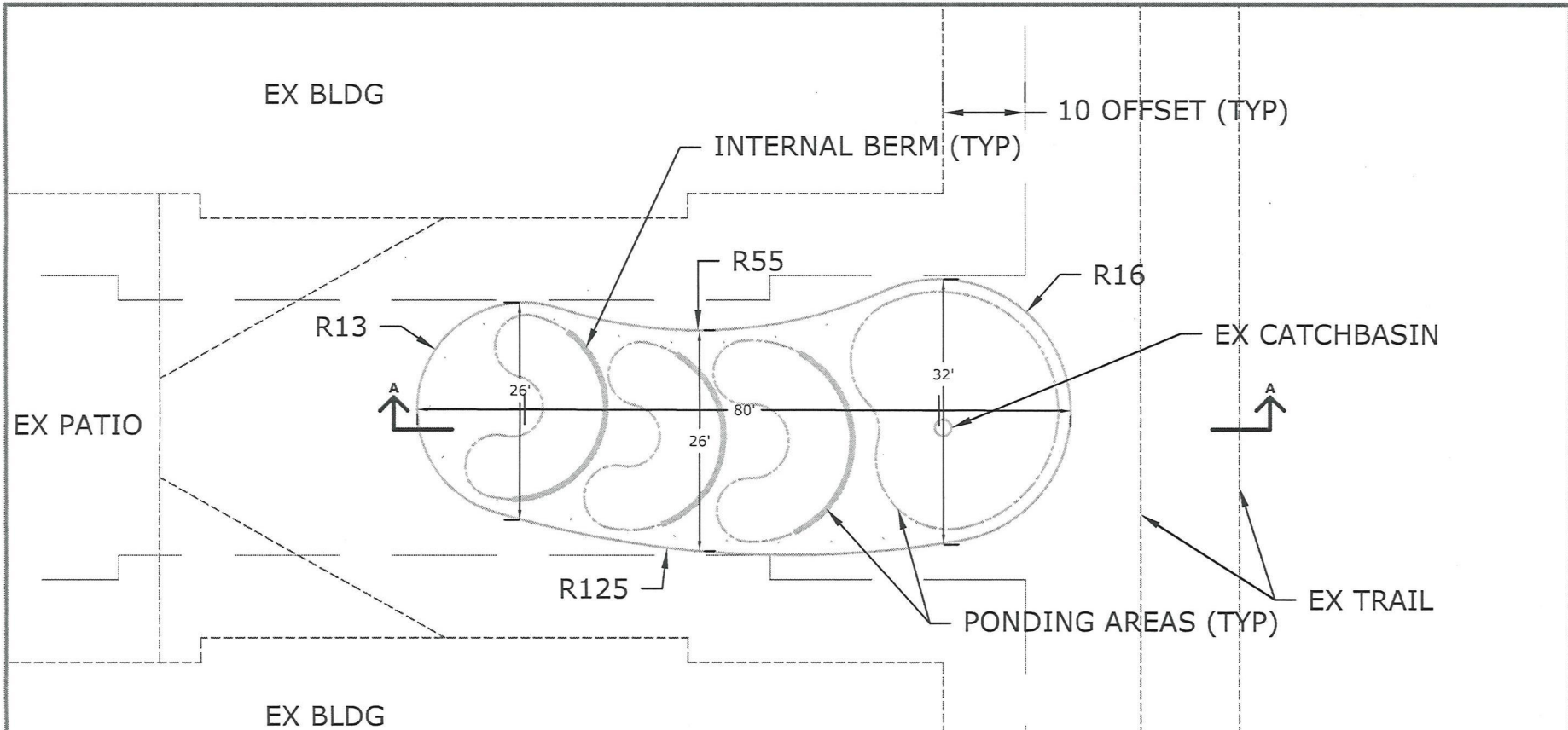
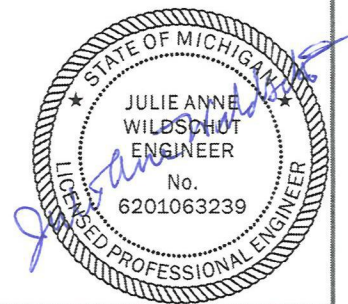


School	Teacher	Contact	PEP Objective(s)	Project Description
Central Middle	Lea Sevigny	<a href="mailto:lsevigny@fhps.net">lsevigny@fhps.net</a>	<ul style="list-style-type: none"> <li>1. Watershed Awareness</li> <li>4. Personal Actions</li> <li>5. Waste Management Assistance</li> <li>6. Riparian Lands</li> </ul>	<p>Central Middle School students will build bridges on land and within neighboring communities. We recognize three areas: an unhealthy forest, landfill dumpster overload, and neighborhood associations with invasive plant and watershed issues. Starting the year with a Healthy Forest Project, students noticed problems with the forest edges of their sugar bush. With the help of community partners as experts, students will cut down invasive and overgrown plants, create trails, design and build a low bridge and walkway, plan for and plant native shrubs, design and create signage, map the area, and document their work. Students in both semesters will also learn about the issues around waste management. They will visit three facilities within Kent County municipal services and share their learning with other CMS students in order to help decrease the amount of waste at school. They are also learning about ways to eliminate organic waste at home, by composting and vermicomposting. Let's help Kent County cut waste 20% by 2020 and 90% by 2030. In spring, we'll continue our relationship with local neighborhood associations: Adacroft garlic mustard pull and Paradise Lake clean water partnership. Hopefully, student communication will bridge the gap.</p> <p>We are planning to acquire goats on our property to finally get rid of invasive species. Because we are not getting a huge herd at this time, this will be an on-going project. Students have been learning about invasive species and what we have already done here at Central Woodlands to help eradicate them.</p>
Central Woodlands 5/6	Patty Tolly	<a href="mailto:ptolly@fhps.net">ptolly@fhps.net</a>		
Collins Elementary	Karin Cramer	<a href="mailto:krcramer@fhps.net">krcramer@fhps.net</a>	<ul style="list-style-type: none"> <li>1. Watershed Awareness</li> <li>4. Personal Actions</li> <li>5. Waste Management Assistance</li> </ul>	<p>The goal of our "Greener Classrooms" project is to guide all our fourth graders to be citizen scientists and active environmental stewards. Our planned initiatives include: Reducing classroom and lunchroom waste that ends up in the landfill, increasing the amount of our school trash that gets recycled or composted. Cutting down on single-use plastics by providing metal spoons for students to use in the classroom and conducting a one-month Reusable Bag Challenge. Being citizen scientists and connecting to our natural world by raising, observing, and releasing Monarch butterflies and salmon. Maintaining our Monarch Waystation garden by identifying and removing non-native weeds, re-tagging all the plants, adding milkweed seeds. Picking garlic mustard in a Kent County Park.</p>
Eastern Middle School	Kathleen (Mitchell)	<a href="mailto:khennink@fhps.net">khennink@fhps.net</a>	<ul style="list-style-type: none"> <li>1. Watershed Awareness</li> <li>4. Personal Actions</li> <li>6. Riparian Lands</li> </ul>	<p>Seventh grade students begin their school year studying the invasive species pervasive on Eastern's campus: spotted knapweed. After a presentation from Mark Fitzpatrick, director of Ada Park, about invasive species, students begin their work outdoors with Mark and his staff. Students continue spotted knapweed removal from an existing courtyard on campus and create beds that they fill with new native plant and mulch. Students also do a spring cleaning of the courtyard which includes weeding and more mulch. At other times, students collect seeds from their native garden to store over the winter. Then, in May, all 200 students visit Roselle Park to help Mark and his crew ready the park for spring. Students bring the seeds they collected from their courtyard to plant at the park. Eighth grade students study Earth systems and in September they discover the connections between themselves and the Grand River watershed. All 200 students spend two hours canoeing down the Rogue River in Rockford to further cement their connection to their watershed.</p>
Northern Hills Middle (7/8)	Bryan Hoekstra	<a href="mailto:bhoekstra@fhps.net">bhoekstra@fhps.net</a>	<ul style="list-style-type: none"> <li>1. Watershed Awareness</li> <li>4. Personal Actions</li> </ul>	<p>Students in the Outdoor Exploration class will monitor the health of the creek behind the middle school. Students will test water chemistry, assess habitat, and sample macroinvertebrates once per month during the school year. They will use turbidity tubes to measure water clarity more frequently as they visit the creek on hikes. (Project is a direct partnership with LGROW - not a Groundswell project. Mr Hoekstra's class is also hoping to help when LGROW plants trees on campus as part of the US Forest Service GLRI grant. He is supportive of planting in the old baseball field if permission is granted)</p>
Northern Trails 5/6	Klara Patrick	<a href="mailto:kpatrick@fhps.net">kpatrick@fhps.net</a>	<ul style="list-style-type: none"> <li>1. Watershed Awareness</li> <li>2. Ultimate Discharge Location</li> <li>4. Personal Actions</li> </ul>	<p>Students will understand the difficulties of Plaster Creek and understand how a rain garden on NT's property can help the Plaster Creek watershed. Students will team up to plan a rain garden for the space outside of our media center. They will research native plants and determine which plants should go where on their map. They will also add features to their rain gardens. Then on December 17th students will present to judges who will determine which rain garden plan/presentation is the winner to be implemented on our property in the spring.</p>
Orchard View Elementary	Anne Keller	<a href="mailto:akeller@fhps.net">akeller@fhps.net</a>	<ul style="list-style-type: none"> <li>5. Waste Management Assistance</li> </ul>	<p>Our project will increase awareness and educate our school about reducing waste in our landfills. We want to increase awareness about where the waste we do produce ends up and provide strategies for students to reduce and reuse. We will also be initiating a vermicomposting operation at our school to help students understand that the food scraps they throw away can be composted to feed worms that create lush and nutrient-rich fertilizer. Focusing on the other Rs (Refuse and Rot), we want students at our school to understand that the choices they make impact humans, animals, plants, and the well-being of our planet. By reducing the amount of waste, students will also reduce the amount of landfill leachate into our waterways as nonpoint source pollution. Create a systematic way to help sort waste. Streamline containers through the school.</p>



NOTES:

- 1) RAIN GARDEN TO BE "KIDNEY BEAN SHAPE" WITH CURVES APPROXIMATING THOSE SHOWN ON PLANS.
- 2) MAINTAIN 10 FT SETBACK FROM BUILDING
- 3) MAX GRADING ANYWHERE ONSITE IS 3:1.
- 4) FROM EDGE OF GARDEN, GRADE DOWN AT 3:1 AND THEN MAINTAIN EXISTING SLOPE.
- 5) SCRAPE OFF SOD AND DISPOSE OR USE AS COVER FOR DOWNSTREAM BERM. EXCAVATE 22" OVER GARDEN AREA. USE EXCAVATED SOIL TO CREATE 3 INTERNAL BERMS WITHIN GARDEN AND A BERM AT DOWNSTREAM END.
- 6) REINFORCE CHECK DAMS WITH ROCK AT OVERFLOW POINT.
- 7) POSITIVE OUTFLOW SHALL BE PROVIDED AS WATER OVERTOPS THE DOWNSTREAM EDGE OF GARDEN TO FLOW OVER TRAIL. PROTECT OUTLET WITH ROCK.
- 8) SCARIFY NATIVE SOIL PRIOR TO PLACEMENT OF BIORETENTION SOIL MIX.
- 9) PLACE 13" OF BIORETENTION SOIL MIX (20-40% COMPOST; 30-50% SAND, 20-30% TOPSOIL)
- 10) APPLY 3" HARDWOOD MULCH OVER SOIL AFTER PLANTINGS.
- 11) SOIL BORE (12-2019) SHOWED AT LEAST 48" DEPTH FROM BOTTOM OF ROCK CHANNEL TO WATER TABLE

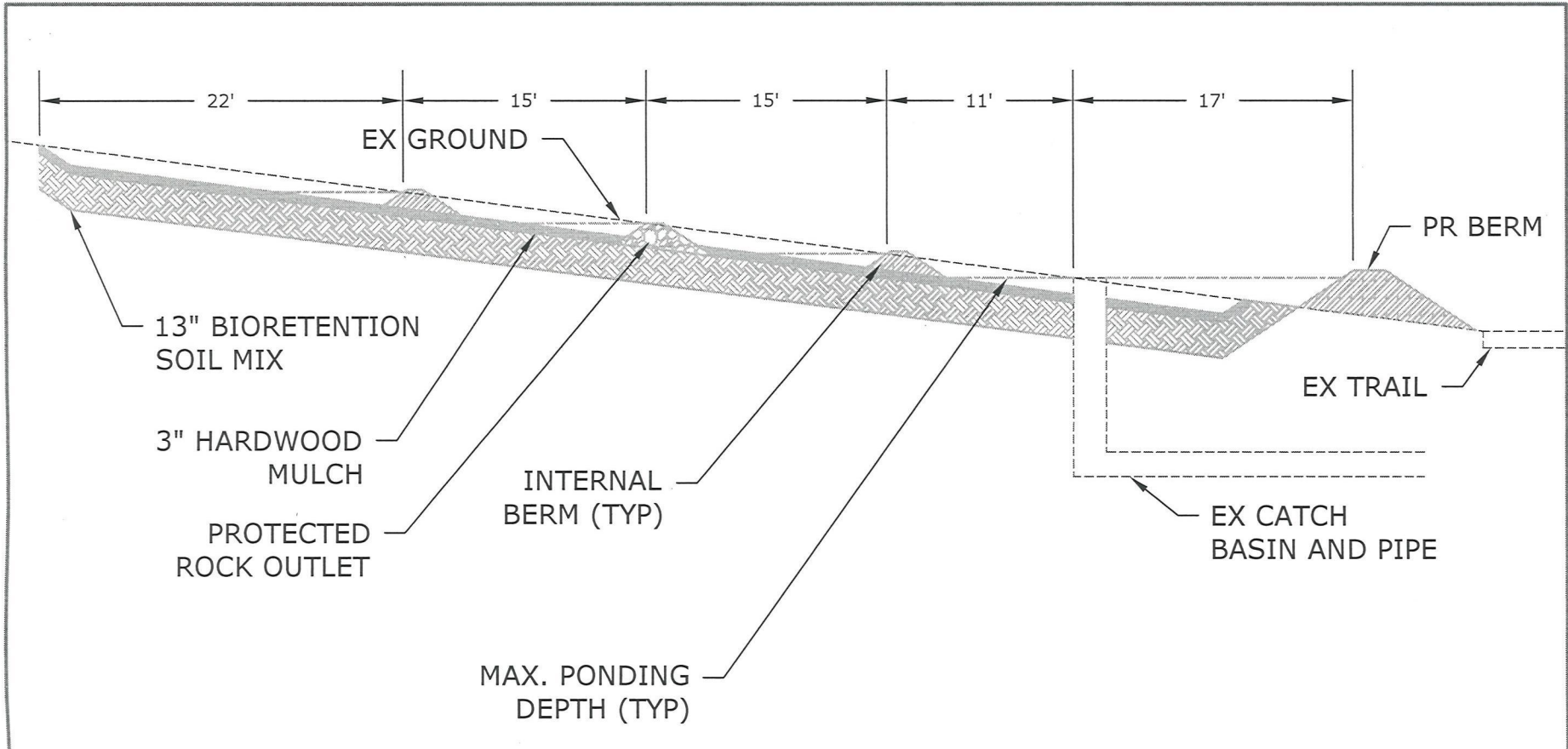


FOREST HILLS NORTHERN 5/6

RAIN GARDEN PLAN VIEW

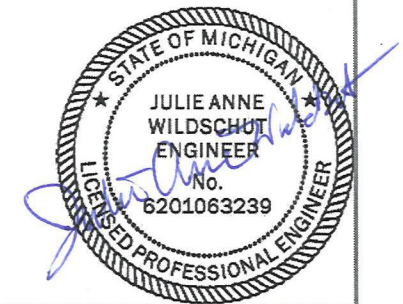
MDEQ 319 GRANT (2018-0004)

DRAWN BY: J. WILDSCHUT, P.E.	DATE: 1/3/2020	SCALE: 1" = 20'
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NOTES:

- 1) VERTICAL SCALE IS 1":20'
- 2) HORIZ. DIMENSIONS ARE REPRESENTATIONAL.
- 3) THREE INTERNAL BERMS SHALL BE CREATED TO ALLOW PONDING.
- 4) A PROTECTED ROCK OUTLET SHALL BE INSTALLED IN EVERY CHECK DAM/INTERNAL BERM



FOREST HILLS NORTHERN 5/6

RAIN GARDEN PROFILE VIEW

MDEQ 319 GRANT (2018-0004)

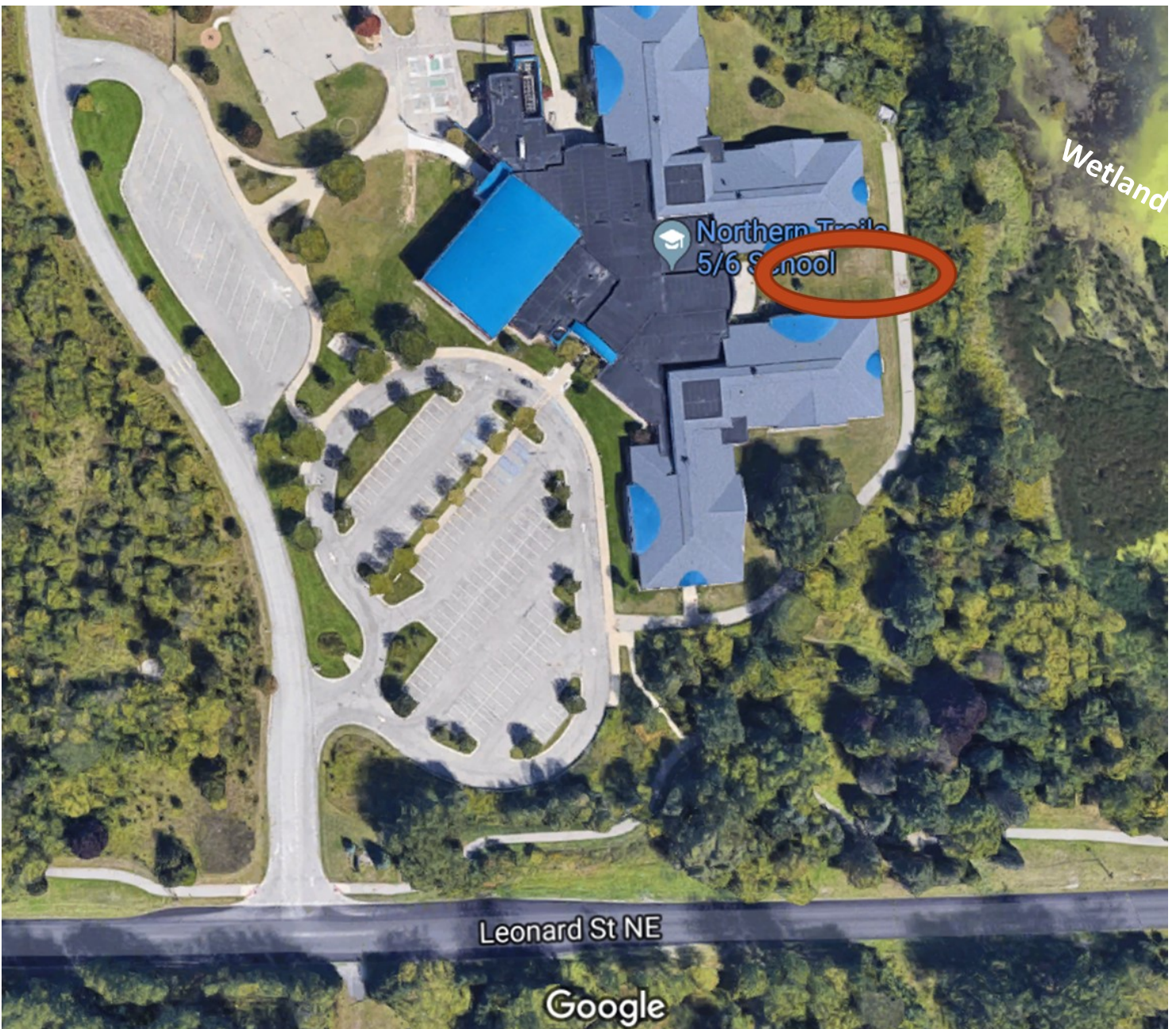
DRAWN BY: J. WILDSCHUT, P.E.	DATE: 1/3/2020	SCALE: 1" = 10'
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LGREEN 319 Project:  
Northern Trails 5/6 School

Address: 3777 Leonard St NE, Grand Rapids, MI 49525

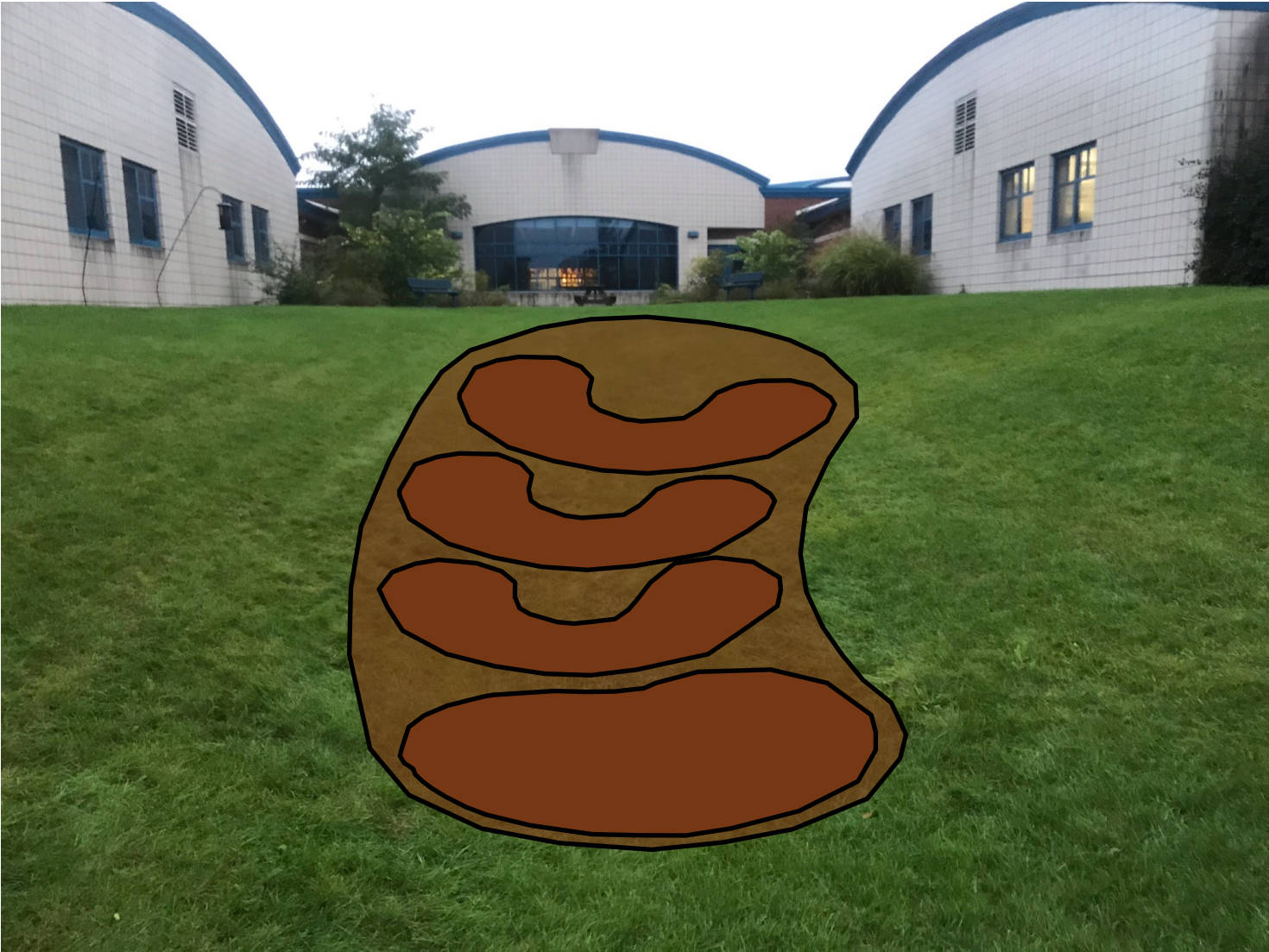


Rain Garden Design



# Location

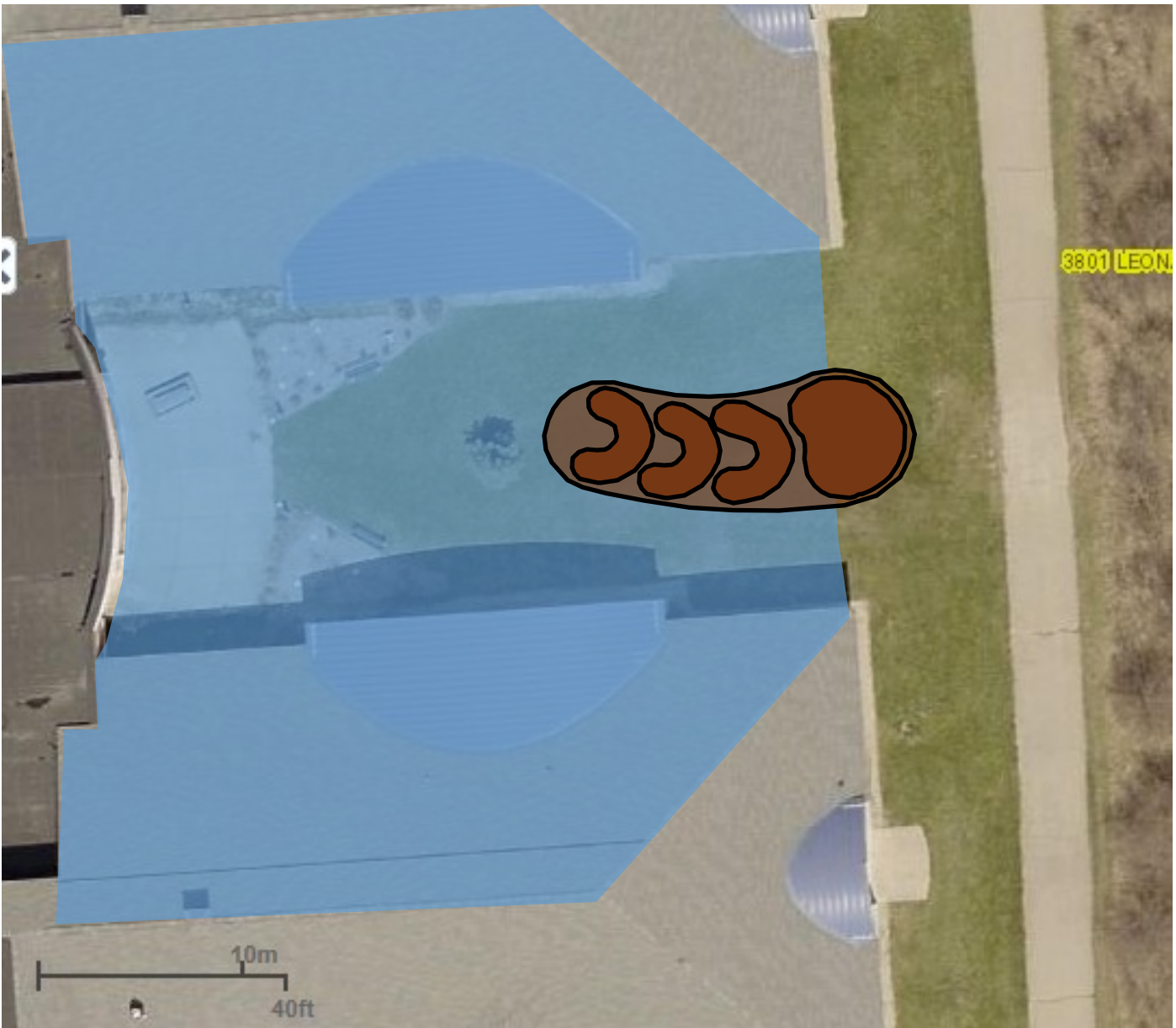
This rain garden would be installed behind the media center. This existing swale gathers runoff from the courtyard and directs it into the drain which leads to the scum-filled wetland behind the school.



## Description

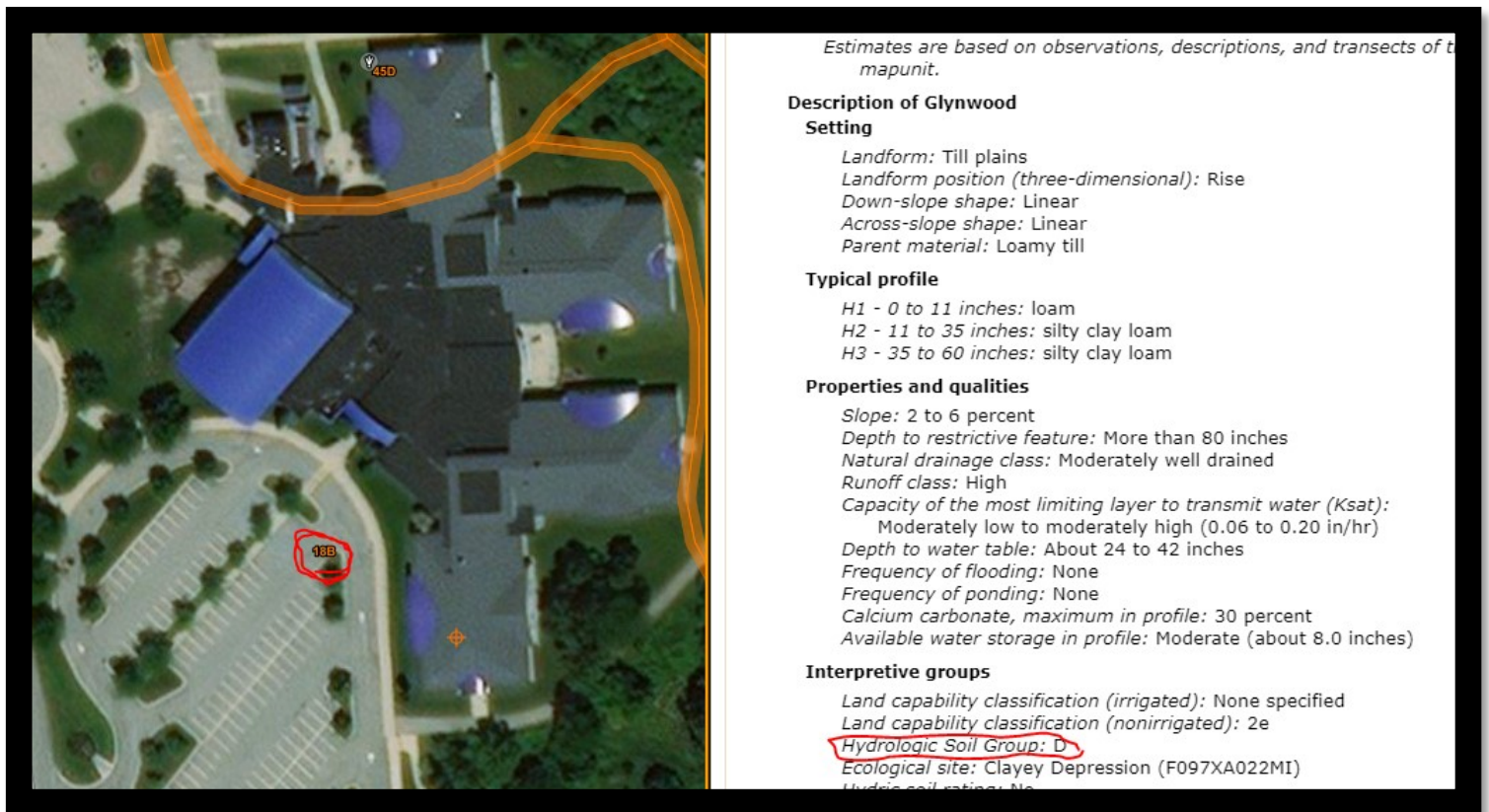
The Atlas 14 2-year rainfall depth(2.57in) was used in the NCRCS CN Method to calculate increase runoff due to construction of the school. The difference in predevelopment hydrology and current of the site is **1493cf** , the rain garden is designed to capture the full amount. The tributary area of the rain garden includes roofs on both sides, concrete patio, and grassed area. Total contributing tributary area is **16424.7sf** (5442sf grassed and 10982.7sf impervious) seen in blue below.

Engineered Plans show the size of rain garden , this scale is not exact.

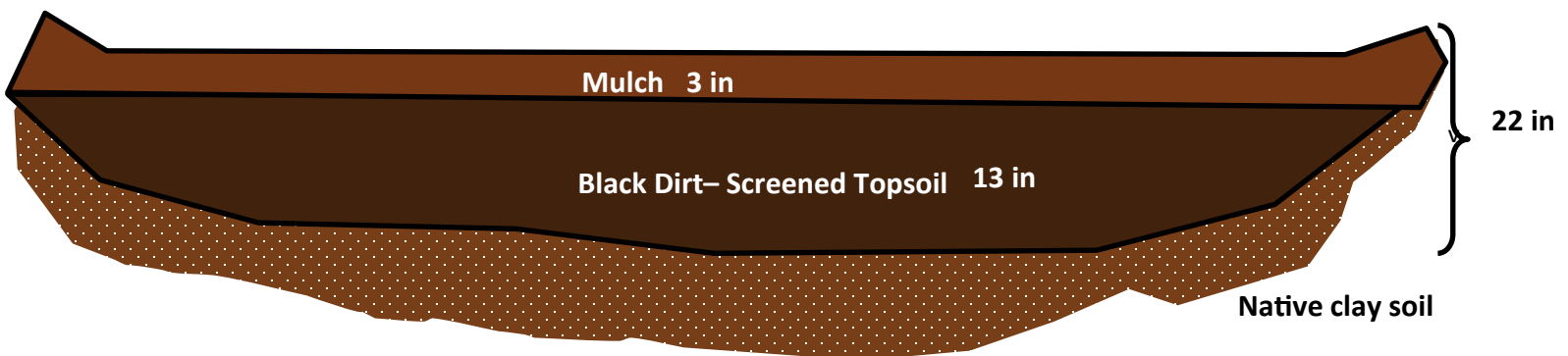


# Soil

According to Web Soil Survey the soil class of the rain garden area is 18B(Glynwood loam 2-6% slopes). The soil map features below show us that they Hydrologic Soil Group is D. This heavy clay does not percolate water well which is why we created such a large and shallow basin of the rain garden.



Amending the soil is vital to increase infiltration . The plan is to remove the top 22 inches of clay and fill in with screened 13 inches yards of top soil place 3 inches of mulch on top. See engineering plans for exact cross section



# Soil Log

5ft soil core was taken on site Dec, 26, 2019, which confirmed type D soils.

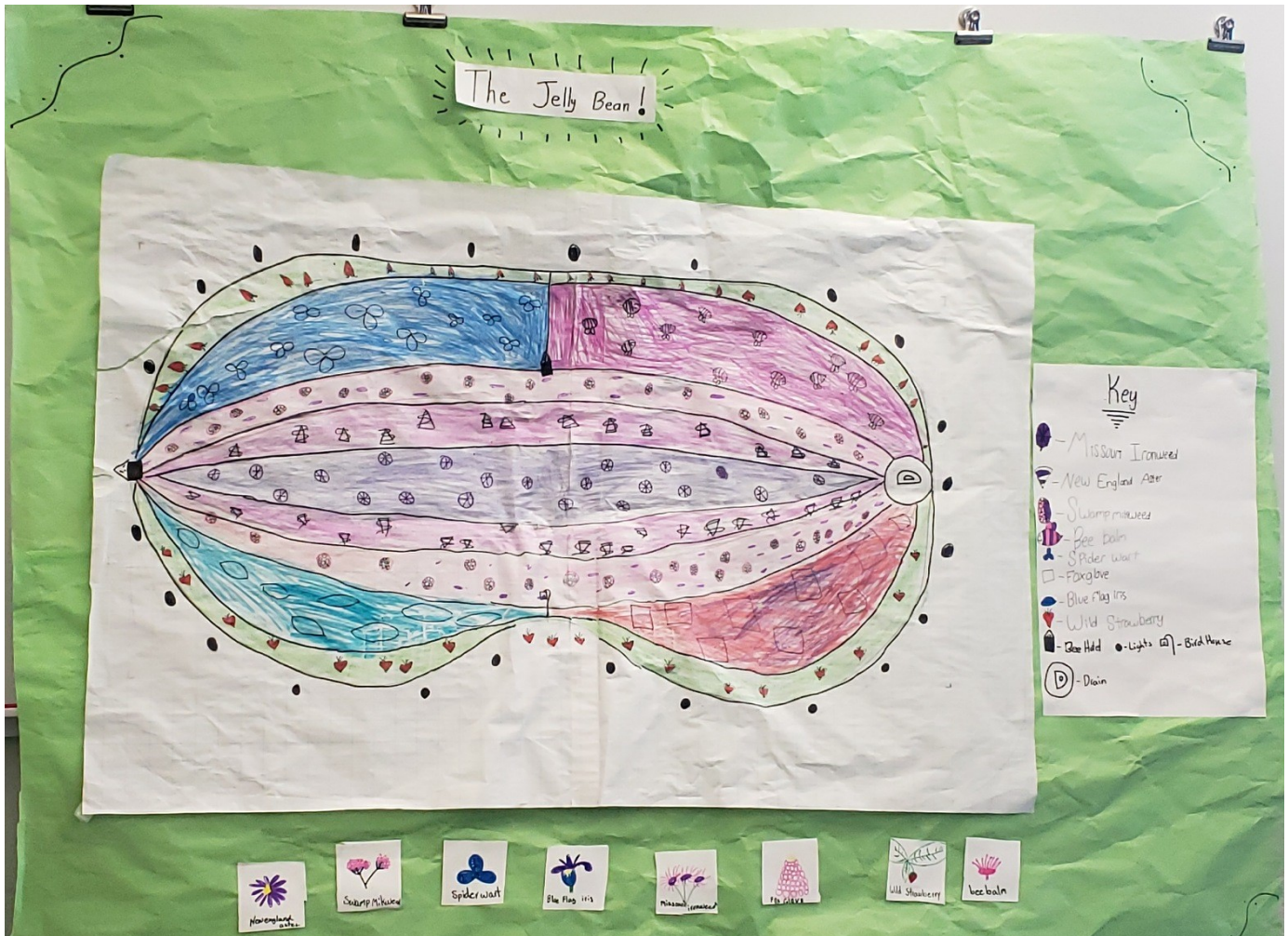




# Planting Plan: The Jelly Bean Rain Garden

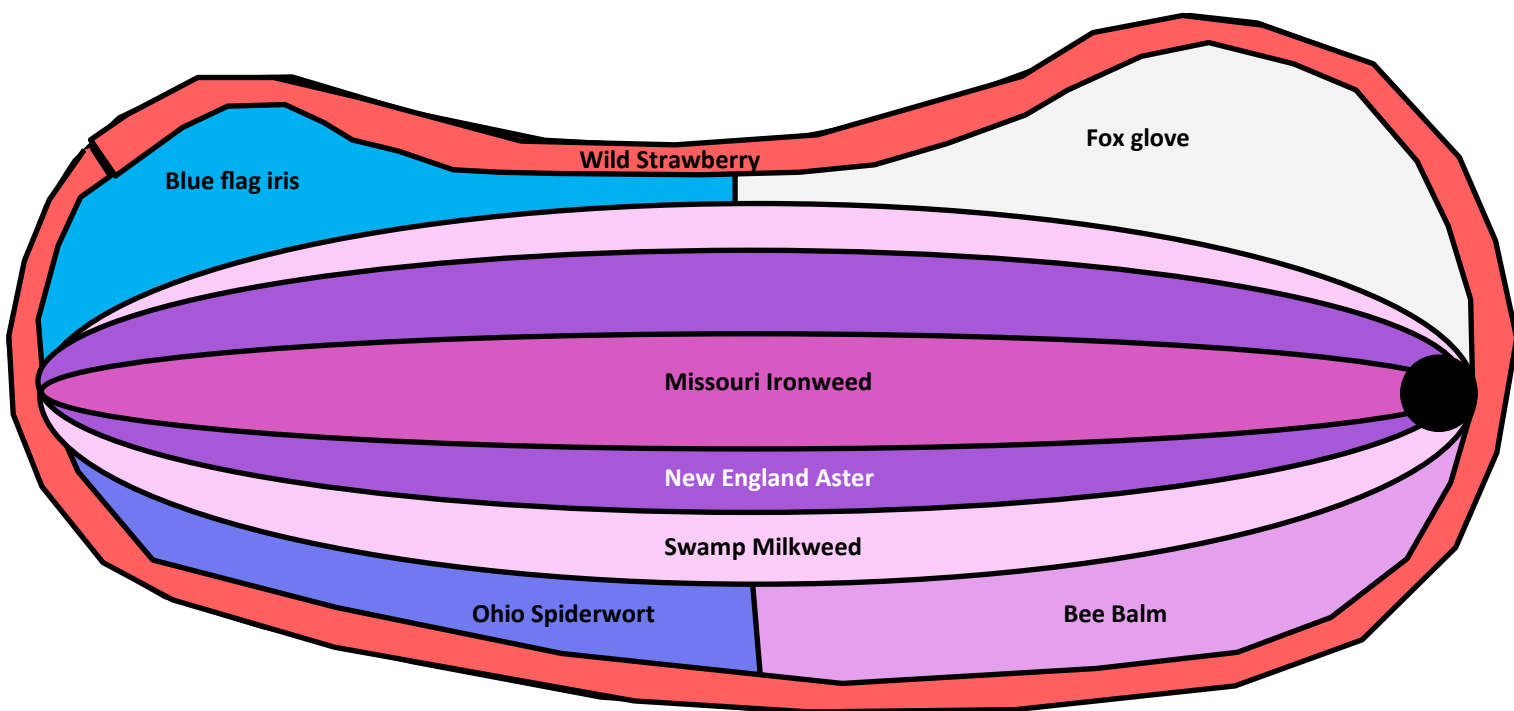
Species to be included in the planting are Missouri ironweed, Swamp milkweed, New England Aster, Bee balm, Blue flag Iris, Wild strawberry, Ohio spiderwort, and Foxglove beard tongue.

About three flats of each plant

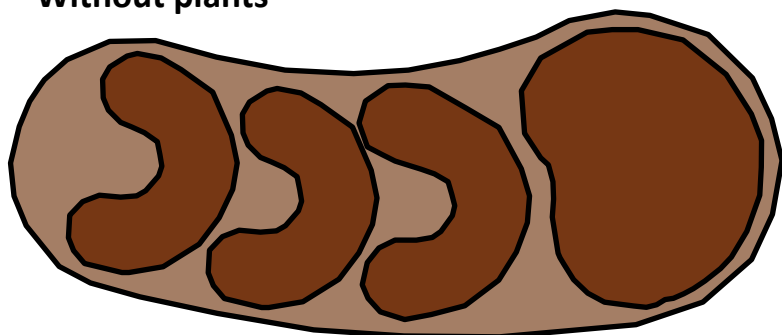


The winning design

# Planting Plan



## Without plants



## Estimated Budget

Size 2,000sf

Engineering design.....\$700

Excavator .....\$2000

Black dirt- 70ish yards.....\$1800

Mulch-18yds.....\$500

Plants(30 flats).....\$1350

**Total: \$6,350**

The features such as benches, birdhouses, bug water-  
ers etc... will not be purchased with EGLE funds.

# EGLE Grant(2018-004) LGREEN-Year 1 Northern Trails Rain Garden

## Planting plan

Native soils are clay but will be replaced with topsoil(13"). The rain garden will contain 'check dams' to ensure runoff capture of the 2-year 2.57inch storm. Planting plan includes all plugs no seeding. Plants used in the garden must tolerate 'wet feet' for the lower areas, slightly drier for the side slopes. Plants with deep roots are vital to ensure survivorship amidst fluctuating conditions. Table 1. Shows the preferred species for the chosen by the students and approved by Plaster Creek Stewards. If for some reason the quantities or species are un-available, Plaster Creek Stewards will select a suitable clay tolerant substitute from the list in Table 2. that can handle fluctuations in conditions. Native plant species that will installed in a plug style planting 1 plant every 1.5 sf. The slopes on each side will be planted with species that are shorter and prefer slightly drier conditions.

## Maintenance plan

- Water daily for 1 month after initial planting to encourage quick establishment.

Twice a year

- Inspect the basin for invasive species for three years after construction.
  - o Remove any invasive vegetation if found.

Quarterly

- Inspect inlet and outlet area for hydraulic function.
  - o Remove sediment and debris from rocks used in check dams
  - o Remove debris from storm drain grate.
  - o Remove sediment and debris from rock near catch basin (outlet area).
- Replace vegetation if 20% or more of planted native vegetation dies off.

**Planting plug lists contains wetland and upland species**

<b><u>Scientific name</u></b>	<b><u>Common name</u></b>
<i>Vernonia missurica</i>	Missouri Ironweed
<i>Asclepias incaranta</i>	Swamp Milkweed
<i>Symphyotrichum novae-angliae</i>	New England Aster
<i>Mondarda fistulosa</i>	Bee Balm
<i>Iris virginica</i>	Blue Flag Iris
<i>Fragaria virginiana</i>	Wild Strawberry
<i>Tradescantia ohioensis</i>	Ohio Spiderwort
<i>Penstemon digitalis</i>	Foxglove Beard Tongue

**Table 2. Native plant species**

<u>Scientific name</u>	<u>Common name</u>
<b>Grasses and Sedges</b>	
<i>Agrostis scabra</i>	Ticklegrass
<i>Andropogon gerardii</i>	Big bluestem
<i>Andropogon virginicus</i>	Broosedge
<i>Aristida purpurascens</i>	Three-awned grass
<i>Avenella flexuosa</i>	Hair grass
<i>Bouteloua curtipendula</i>	Side oats grama
<i>Brachyelytrum aristosum</i>	Northern Shorthusk
<i>Brachyelytrum erectum</i>	Long-awned wood grass
<i>Bromus ciliatus</i>	Fringed brome
<i>Bromus kalmii</i>	Prairie brome
<i>Bromus latiglumis</i>	Ear-leaved brome
<i>Bromus pubescens</i>	Canada brome
<i>Calamagrostis canadensis</i>	Bluejoint
<i>Calamagrostis stricta</i>	Narrow-leaved reedgrass
<i>Calamovilfa longifolia</i>	sand reed grass
<i>Hystrix patula</i>	Sedge
<i>Carex annectens</i>	Sedge
<i>Carex aquatilis</i>	Sedge
<i>Carex arctata</i>	Sedge
<i>Carex atherodes</i>	Sedge
<i>Carex aurea</i>	Sedge
<i>Carex blanda</i>	Sedge
<i>Carex brevior</i>	Sedge
<i>Carex buxbaumii</i>	Buxbaum's sedge
<i>Carex castanea</i>	Sedge
<i>Carex cephalophora</i>	Sedge
<i>Carex communis</i>	Sedge
<i>Carex comosa</i>	Sedge
<i>Carex crinita</i>	Sickle sedge
<i>Carex cristatella</i>	Sedge

<i>Carex davisii</i>	Davis' sedge
<i>Carex deweyana</i>	Sedge
<i>Carex diandra</i>	Sedge
<i>Carex eburnea</i>	Sedge
<i>Carex flava</i>	Sedge
<i>Carex foenea</i>	Sedge
<i>Carex gracillima</i>	Graceful sedge
<i>Carex granularis</i>	Sedge
<i>Carex grayi</i>	Gray's sedge
<i>Carex grisea</i>	inflated narrow-leaf sedge
<i>Carex hirtifolia</i>	Sedge
<i>Carex hitchcockiana</i>	Sedge
<i>Carex hystericina</i>	Porcupine sedge
<i>Carex intumescens</i>	Sedge
<i>Carex lacustris</i>	Lake sedge
<i>Carex lasiocarpa</i>	Wiregrass sedge
<i>Carex laxiflora</i>	Sedge
<i>Carex leptalea</i>	Sedge
<i>Carex leptonevia</i>	Sedge
<i>Carex lupulina</i>	Sedge
<i>Carex lurida</i>	Sedge
<i>Carex molesta</i>	Sedge
<i>Carex muehlenbergii</i>	Sedge
<i>Carex muskingumensis</i>	Sedge
<i>Carex normalis</i>	Sedge
<i>Carex oligosperma</i>	Sedge
<i>Carex pellita</i>	Sedge
<i>Carex pennsylvanica</i>	Pennsylvania sedge
<i>Carex plantaginea</i>	Sedge
<i>Carex prairea</i>	Prairie sedge
<i>Carex prasina</i>	Sedge
<i>Carex retrorsa</i>	Sedge
<i>Carex rosea</i>	Sedge

<i>Carex rostrata</i>	Sedge
<i>Carex scabrata</i>	Sedge
<i>Carex scoparia</i>	Sedge
<i>Carex sp (Ovales)</i>	Sedge
<i>Carex sparganioides</i>	Sedge
<i>Carex sprengei</i>	Sedge
<i>Carex sterilis</i>	Sedge
<i>Carex stipata</i>	Sedge
<i>Carex stricta</i>	Tussock sedge
<i>Carex swanii</i>	Sedge
<i>Carex tribuloides</i>	Sedge
<i>Carex tuckermanii</i>	Sedge
<i>Carex umbellata</i>	sedge
<i>Carex vulpinoidea</i>	Sedge
<i>Cinna arundinacea</i>	Wood reed grass
<i>Cladium mariscoides</i>	Twig rush
<i>Cyperus bipartitus (C rivularis)</i>	Brook nut sedge
<i>Cyperus filliculmis</i>	Toad rush
<i>Cyperus houghtonii</i>	Smooth sand sedge
<i>Cyperus schweinitzii</i>	Rough sand sedge
<i>Cyperus strigosus</i>	Long-scaled nut sedge
<i>Danthonia spicata</i>	Poverty oat-grass
<i>Deschampsia cespitosa</i>	Hair grass
<i>Diarrhena obovata</i>	Beak grass
<i>Dichanthelium columbianum</i>	Panic Grass
<i>Dichanthelium commonsianum</i>	Panic Grass
<i>Dichanthelium depauperatum</i>	Panic Grass
<i>Dichanthelium dichotomum</i>	Panic Grass
<i>Dichanthelium implicatum</i>	Panic grass
<i>Dichanthelium latifolium</i>	Panic grass
<i>Dichanthelium linearifolium</i>	Panic grass
<i>Dichanthelium meridionale</i>	Panic grass
<i>Dichanthelium oligosanthos</i>	Panic Grass

<i>Dichanthelium sp</i>	Panic grass
<i>Dichanthelium sphaerocarpon</i>	Panic Grass
<i>Dichanthelium xanthophysum</i>	Panic Grass
<i>Dulichium arundinaceum</i>	Three-way sedge
<i>Eleocharis obtusa</i>	Spike-rush
<i>Elymus canadensis</i>	Canada wild-rye
<i>Elymus riparius</i>	Riverbank wild-rye
<i>Elymus villosus</i>	Silky wild-rye
<i>Elymus virginicus</i>	Virginia wild-rye
<i>Eragrostis spectabilis</i>	Purple lovegrass
<i>Eriophorum virginicum</i>	Tawny cotton-grass
<i>Festuca obtusa</i>	Nodding fescue
<i>Festuca saximontana</i>	Fescue
<i>Festuca subverticillata</i>	Nodding fescue
<i>Glyceria canadensis</i>	Rattlesnake grass
<i>Glyceria grandis</i>	Reed Manna Grass
<i>Glyceria striata</i>	Fowl manna grass
<i>Hystrix patula</i>	Bottlebrush grass
<i>Juncus articulatus</i>	Jointed rush
<i>Juncus balticus</i>	Rush
<i>Juncus biflorus</i>	Two-flowered rush
<i>Juncus canadensis</i>	Canadian rush
<i>Juncus dudleyi</i>	Path rush
<i>Juncus effusus</i>	Soft-stemmed rush
<i>Juncus nodosus</i>	Joint rush
<i>Juncus tenuis</i>	Path rush
<i>Juncus torreyi</i>	Rush
<i>Koeleria macrantha</i>	June grass
<i>Leptoloma cognatum</i>	Witch grass
<i>Luzula multiflora</i>	Wood rush
<i>Milium effusum</i>	Wood millet
<i>Muhlenbergia frondosa</i>	Common satin grass
<i>Muhlenbergia glomerata</i>	Marsh Timothy



<i>Oryzopsis asperifolia</i>	Rough leaved rice-grass
<i>Panicum rigidulum</i>	Panic grass
<i>Panicum virgatum</i>	Switchgrass
<i>Paspalum setaceum</i>	Hairy lens grass
<i>Piptatherum racemosum</i>	Rice-grass
<i>Rhynchospora capitellata</i>	Beak-rush
<i>Schizachne purpurascens</i>	False melic
<i>Schizachyrium scoparium</i>	Little bluestem
<i>Schoenoplectus acutus</i>	Hardstem bulrush
<i>Schoenoplectus pungens</i>	Threesquare
<i>Schoenoplectus tabernaemontani</i>	Softstem bulrush
<i>Scirpus atrovirens</i>	Green bulrush
<i>Scirpus cyperinus</i>	Wool-grass
<i>Scirpus expansus</i>	Bulrush
<i>Scirpus pedicellatus</i>	Wool-grass
<i>Scirpus pendulus</i>	Bulrush
<i>Sorghastrum nutans</i>	Indian grass
<i>Sparganium americanum</i>	American bur-reed
<i>Sparganium eurycarpum</i>	Common bur-reed
<i>Spartina pectinata</i>	Prairie cordgrass
<i>Sphenopholis intermedia</i>	Slender wedge grass
<i>Sporobolus cryptandrus</i>	Sand dropseed
<i>Sporobolus heterolepis</i>	Prairie dropseed
<i>Stipa avenacea</i>	Black oat grass
<i>Stipa spartea</i>	Porcupine grass
<i>Tridens flavus</i>	Purpletop
<b>Herbaceous Forbs</b>	
<i>Acorus americanus</i>	Sweet flag
<i>Actaea pachypoda</i>	Doll's eyes
<i>Actaea rubra</i>	Red baneberry
<i>Agastache nepatoides</i>	Yellow giant hyssop
<i>Agrimonia gryposepala</i>	Tall agrimony

<i>Agrimonia pubescens</i>	Soft agrimony
<i>Alisma plantago-aquatica</i>	Water plantain
<i>Allium canadense</i>	Wild garlic
<i>Allium cernuum</i>	Nodding wild onion
<i>Allium tricoccum</i>	Wild leek
<i>Anaphalis margaritacea</i>	Pearly everlasting
<i>Anemone canadensis</i>	Canada anemone
<i>Anemone cylindrica</i>	Thimbleweed
<i>Anemone virginiana</i>	Thimbleweed
<i>Angelica atropurpurea</i>	Angelica
<i>Antennaria parlinii</i>	Pussytoes
<i>Apocynum cannabinum</i>	Dogbane; Indian hemp
<i>Aquilegia canadensis</i>	Wild columbine
<i>Aralia nudicaulis</i>	Wild sarsaparilla
<i>Aralia racemosa</i>	Spikenard
<i>Arisaema dracontium</i>	Green dragon
<i>Arisaema triphyllum</i>	Jack-in-the-Pulpit
<i>Artemisia campestris</i>	Wormwood
<i>Asarum canadense</i>	Wild ginger
<i>Asclepias amplexicaulis</i>	Winged milkweed
<i>Asclepias exaltata</i>	Poke milkweed
<i>Asclepias incarnata</i>	Swamp milkweed
<i>Asclepias syriaca</i>	Common milkweed
<i>Asclepias tuberosa</i>	Butteflyweed
<i>Asclepias verticillata</i>	Whorled milkweed
<i>Asclepias viridiflora</i>	Green milkweed
<i>Aster firmus</i>	Smooth swamp aster
<i>Aster laevis</i>	Smooth aster
<i>Aster macrophyllus</i>	Big-leaved aster
<i>Aster novae-angliae</i>	New England aster
<i>Aster oolentangiensis</i>	Prairie heart-leaved aster
<i>Aster puniceus</i>	Swamp aster
<i>Aster sagittifolius x cordifolius</i>	Hybrid aster

<i>Aster umbellatus</i>	Flat-topped aster
<i>Aureolaria flava</i>	Smooth false foxglove
<i>Aureolaria pedicularia</i>	Annual false-foxglove
<i>Blephilia ciliata</i>	Ohio horse mint
<i>Boechera stricta</i>	Drummond's rock cress
<i>Boehmeria cylindrica</i>	False nettle
<i>Brickellia eupatorioides</i>	False boneset
<i>Cacalia atriplicifolia</i>	Pale Indian plantain
<i>Calla palustris</i>	Wild calla; Water-arum
<i>Caltha palustris</i>	Marsh marigold
<i>Campanula rotundifolia</i>	Harebell
<i>Campanulastrum americanum</i>	Tall bellflower
<i>Caulophyllum thalictroides</i>	Blue cohosh
<i>Chamerion angustifolium</i>	Fireweed
<i>Chelone glabra</i>	Turtlehead
<i>Cicuta maculata</i>	Water hemlock
<i>Cirsium muticum</i>	Marsh thistle
<i>Cirsium pitcheri</i>	Pitcher's thistle
<i>Clematis virginiana</i>	Clematis
<i>Clintonia borealis</i>	Yellow bead lily
<i>Comandra umbellata</i>	Bastard toadflax
<i>Coptis trifolia</i>	Goldthread
<i>Coreopsis lanceolata</i>	Lance-leaved coreopsis
<i>Coreopsis tripteris</i>	Tall coreopsis
<i>Dentaria laciniata</i>	Cut-leaved toothwort
<i>Desmodium canadense</i>	Showy tick-trefoil
<i>Desmodium cuspidatum</i>	Smooth-bracted tick-trefoil
<i>Desmodium glutinosum</i>	Clustered-leaved tick-trefoil
<i>Desmodium illinoense</i>	Illinois tick-trefoil
<i>Desmodium marilandicum</i>	Small-leaved tick-trefoil
<i>Desmodium paniculatum</i>	Panicled tick-trefoil
<i>Desmodium sessilifolium</i>	Sessile-leaved tick-trefoil
<i>Dioscorea villosa</i>	Wild yam

<i>Drosera rotundifolia</i>	Sundew
<i>Echinacea purpurea</i>	Purple coneflower
<i>Echinocystis lobata</i>	Wild-cucumber
<i>Eryngium yuccifolium</i>	Rattlesnake master
<i>Eupatorium maculatum</i>	Joe-pye weed
<i>Eupatorium perfoliatum</i>	Common boneset
<i>Eupatorium purpureum</i>	Woodland Joe-pye
<i>Euphorbia corollata</i>	Flowering spurge
<i>Euthamia graminifolia</i>	Grass-leaved goldenrod
<i>Filipendula rubra</i>	Queen of the prairie
<i>Galium cirzaecens</i>	Wild white licorice
<i>Galium pilosum</i>	Hairy bedstraw
<i>Galium tinctorium</i>	Bedstraw
<i>Gentiana andrewsii</i>	Bottled gentian
<i>Gentianopsis virgata</i>	Fringed gentian
<i>Geranium maculatum</i>	Wild geranium
<i>Geum aleppicum</i>	Yellow avens
<i>Geum laciniatum</i>	Rough avens
<i>Helenium autumnale</i>	Sneezeweed
<i>Helianthemum canadense</i>	Common rockrose
<i>Helianthus divaricatus</i>	Woodland sunflower
<i>Helianthus giganteus</i>	Tall sunflower
<i>Helianthus hirsutus</i>	Sunflower
<i>Helianthus occidentalis</i>	Western sunflower
<i>Heliopsis helianthoides</i>	Ox-eye sunflower
<i>Heracleum maximum</i>	Cow parsnip
<i>Heuchera americana</i>	Alum root
<i>Hibiscus moscheutos</i>	Swamp mallow
<i>Hieracium venosum</i>	Rattlesnake-weed
<i>Hieracium gronovii</i>	Hairy Hawkweed
<i>Hieracium scabrum</i>	Rough hawkweed
<i>Hydrophyllum appendiculatum</i>	Great waterleaf
<i>Hypericum ascyron</i>	Giant St. John'swort

<i>Hypericum punctatum</i>	Spotted St. John'swort
<i>Iris virginica</i>	Blue flag iris
<i>Isopyrum biternatum</i>	False rue anemone
<i>Lechea intermedia</i>	Intermediate pinweed
<i>Lechea mucronata</i>	Pinweed
<i>Lespedeza capitata</i>	Round-headed bush-clover
<i>Lespedeza hirta</i>	Hairy bush-clover
<i>Lespedeza virginica</i>	Slender bush-clover
<i>Liatris aspera</i>	Rough blazing star
<i>Liatris scariosa</i>	Northern blazing star
<i>Liatris spicata</i>	Marsh blazing star
<i>Lilium michiganense</i>	Michigan lily
<i>Lithospermum canescens</i>	Hoary puccoon
<b><i>Lithospermum latifolium</i></b>	<b>American gromwell</b>
<i>Lobelia cardinalis</i>	Cardinal flower
<i>Lobelia inflata</i>	Indian-Tobacco
<i>Lobelia siphilitica</i>	Great blue lobelia
<i>Ludwigia alternifolia</i>	Seedbox
<i>Lupinus perennis</i>	Wild lupine
<i>Luzula multiflora</i>	Common woodrush
<i>Lycopus americanus</i>	Common water horehound
<i>Lysimachia ciliata</i>	Fringed loosestrife
<i>Maianthemum canadense</i>	Canada mayflower
<i>Maianthemum racemosum</i>	False spikenard
<i>Maianthemum stellatum</i>	Starry false Solomon-seal
<i>Medeola virginiana</i>	Indian cucumber-root
<i>Mentha arvensis</i>	Marsh mint
<i>Menyanthes trifoliata</i>	Buckbean, Bogbean
<i>Mertensia virginica</i>	Virginia bluebells
<i>Mimulus ringens</i>	Monkey flower
<i>Mitella diphylla</i>	Bishop's cap
<i>Monarda fistulosa</i>	Wild bergamot
<i>Monarda punctata</i>	Horse mint

<i>Monotropa uniflora</i>	Indian pipe
<i>Oenothera clelandii</i>	Evening-primrose
<i>Opuntia humifusa</i>	Prickly pear
<i>Osmorhiza claytonii</i>	Hairy sweet cicely
<i>Osmorhiza longistylis</i>	Smooth sweet cicely
<i>Oxypolis rigidior</i>	Cowbane
<i>Pedicularis canadensis</i>	Wood betony
<i>Pedicularis lanceolata</i>	Swamp betony
<i>Peltandra virginica</i>	Arrow arum, Tuckahoe
<i>Penstemon digitalis</i>	Foxglove beard-tongue
<i>Penstemon hirsutus</i>	Hairy beard-tongue
<i>Penthorum sedoides</i>	Ditch stonecrop
<i>Persicaria amphibia</i>	Water smartweed
<i>Phlox divaricata</i>	wild blue phlox
<i>Podophyllum peltatum</i> L	May apple
<i>Polygonatum biflorum</i>	Solomon's seal
<i>Polygonum virginiana</i>	Jumpseed
<i>Pontedaria cordata</i>	Pickerel-weed
<i>Potamogeton natans</i>	Pondweed
<i>Potentilla anserina</i>	Silver weed
<i>Potentilla palustris</i>	Marsh cinquefoil
<i>Prenanthes alba</i>	White lettuce
<i>Prenanthes altissima</i>	White lettuce
<i>Proserpinaca palustris</i>	Mermaid weed
<i>Pycnanthemum virginianum</i>	Mountain mint
<i>Ranunculus abortivus</i>	Small-flowered buttercup
<i>Ranunculus hispidus</i>	Swamp buttercup
<i>Ranunculus recurvatus</i>	Hooked crowfoot
<i>Ratibida pinnata</i>	Yellow coneflower
<i>Rudbeckia fulgida</i>	Black-eyed susan
<i>Rudbeckia hirta</i>	Black-eyed susan
<i>Rudbeckia laciniata</i>	Cut-leaved coneflower
<i>Rudbeckia triloba</i>	Black-eyed susan

<i>Rumex orbiculatus</i>	Great water dock
<i>Rumex verticillatus</i>	Water dock
<i>Sagittaria latifolia</i>	Arrowleaf
<i>Sanguinaria canadensis</i>	Bloodroot
<i>Sanicula marilandica</i>	Maryland black snakeroot
<i>Saururus cernuus</i>	Lizard's tail
<i>Scrophularia marilandica</i>	Late figwort
<i>Scutellaria lateriflora</i>	Mad dog skullcap
<i>Senecio aureus</i>	Golden ragwort
<i>Senecio obovatus</i>	Round-leaved Ragwort
<i>Senecio pauperculus</i>	Balsam ragwort
<i>Senna hebecarpa</i>	Wild senna
<i>Silphium integrifolium</i>	Rosinweed
<i>Silphium laciniatum</i>	Compass plant
<i>Silphium perfoliatum</i>	Cup plant
<i>Silphium terebinthinaceum</i>	Prairie dock
<i>Sisyrinchium angustifolium</i>	Stout blue-eyed grass
<i>Solidago caesia</i>	Blue-stemmed goldenrod
<i>Solidago flexicaulis</i>	Zig-zag goldenrod
<i>Solidago gigantea</i>	Late goldenrod
<i>Solidago juncea</i>	Early goldenrod
<i>Solidago nemoralis</i>	Gray goldenrod
<i>Solidago ohioensis</i>	Ohio goldenrod
<i>Solidago patula</i>	Swamp goldenrod
<i>Solidago riddellii</i>	Riddell's goldenrod
<i>Solidago rigida</i>	Stiff goldenrod
<i>Solidago rugosa</i>	Rugose goldenrod
<i>Solidago simplex var gillmanii</i>	Gillman's goldenrod
<i>Solidago simplex var simplex</i>	Gillman's goldenrod
<i>Solidago speciosa</i>	Showy goldenrod
<i>Solidago uliginosa</i>	Bog goldenrod
<i>Solidago ulmifolia</i>	Elm-leaved goldenrod
<i>Stylophorum diphyllum</i>	Wood poppy

<i>Symplocarpus foetidus</i>	Skunk cabbage
<i>Tephrosia virginiana</i>	Goat's rue
<i>Teucrium canadense</i>	Wood sage
<i>Thalictrum dasycarpum</i>	Tall meadow rue
<i>Tradescantia ohiensis</i>	Spiderwort
<i>Trientalis borealis</i>	Star flower
<i>Trillium grandiflorum</i>	Common trillium
<i>Triosteum aurantiacum</i>	Horse gentian
<i>Uvularia grandiflora</i>	largeflower bellwort
<i>Verbena hastata</i>	Blue vervain
<i>Verbena stricta</i>	Hoary vervain
<i>Vernonia missurica</i>	Missouri ironweed
<i>Veronica beccabunga</i>	Marsh speedwell
<i>Veronicastrum virginicum</i>	Culver's root
<i>Viola canadensis</i>	Canada violet
<i>Viola pedata</i>	Bird's foot violet
<i>Viola pubescens</i>	Downy Yellow Violetoet
<i>Viola sagittata var ovata</i>	Arrow leaf violet
<i>Zizia aptera</i>	Prairie golden alexanders
<i>Zizia aurea</i>	Golden alexanders