

Outdoor Heritage Fund Grant Application



Name of Organization: **Valley City State University**

Federal Tax ID#: **45-6002482**

Contact Person/Title: **Casey Williams, PhD.**

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State: **North Dakota**

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Fax #: **na**

Co-applicants: **na**

MAJOR Directive:

Directive D. Conserving natural areas and creating other areas for recreation through the establishment and development of parks and other recreation areas.

Additional Directive:

Directive C. Developing, enhancing, conserving and restoring wildlife and fish habitat on private and public lands

Type of organization:

- State Agency
- Political Subdivision
- Tribal Entity
- Tax-exempt, nonprofit corporation.

Project Name: *Hi-Line Prairie Gardens and Orchard*

Abstract/Executive Summary:

We are requesting \$10,000 in funding through the North Dakota Outdoor Heritage Fund to support Phase Three construction and plantings of the Hi-Line Gardens and Orchard in Valley City, ND. The Hi-Line Gardens and Orchard will ultimately convert approximately 4 acres of unused property in northwest Valley City into an easily accessible outdoor recreation and educational area. Phase One of the proposed plan included planting 20 ornamental trees and 49 fruit and nut trees (apples, plums, cherries, etc.). Phase Two included the planting of 121 fruiting shrubs (juneberry, honeyberry, bush cherry, etc.), approximately 3,000 square feet of native flowering plants, and a required hillslope retaining wall. Phase Three includes the remaining site grading, construction of gravel pathways around and through the gardens and orchard, planting of a 1,300 square foot rain garden, and educational signage including tree and plant labels.

This project will serve several functions when completed. First, the gardens and orchard will greatly improve the aesthetic value of the area and provide opportunities for outdoor activities for community members, including fruit picking, planting, and just enjoying the plant life on a daily basis. This project will also provide valuable habitat and resources for native pollinator species.

The educational component of this project is a major focus and immeasurable. At a small scale, plant identification signage and descriptions will increase community knowledge of North Dakota native plant species. Available information will focus on all age groups, from elementary students to senior citizens and the location and proximity to local schools will allow for short field trips and outdoor learning experiences. On a much larger scale, this project can be used to demonstrate eco-friendly and sustainable landscape methods. For instance, native plants are adapted for our varying climate and able to resist drought, heat and cold. Once established, these species are self-sustaining and useful for low maintenance urban landscaping while maintaining beauty and native plant diversity of the Great Plains.

This project began during the summer of 2014 when Casey Williams (Valley City State University) and Valley City commissioner Madeline Luke developed the idea for a pollinator garden on an unused parcel of land in Valley City. Through community input and involvement of the Valley City Beautification Committee, the idea grew from a small native plant garden to include a large native plant area and community orchard with numerous fruiting trees. Since that time, planning has continued, a Master Plan was developed by landscape architect Hanson and Associates and Phase One of the project, the ornamental tree screening of the water detention pond and the fruit and nut tree orchard planting has been completed. Phase Two, including planting of 121 fruiting shrubs, a hillslope retaining wall, and one pollinator garden (to be planted in spring 2018) is also complete.

Project Duration:

Detailed planning and design for the Hi-Line Prairie Gardens and Orchard began in the spring of 2015. Currently, a master plan is available and a proposed timeline of construction is provided below.

- 2015: Site selection, public promotion, development of master plan (Completed)
- 2016: Phase One including pilot native species garden planting, ornamental tree screening of water retention pond, fruit and nut orchard tree planting (Completed)
- 2017: Phase Two including retaining wall, fruiting shrubs and a 3000 square foot of native flowering plants (garden constructed and will be planted in spring of 2018)
- 2018: Phase 3 including remaining site grading, gravel paths around and through the gardens and orchard, rain garden, and educational tree and shrub labels.

Amount of Grant request: \$10,000.00

Total Project Costs: \$30,636.00

Amount of Matching Funds: \$19,090.00

Additional amount of \$1546 to be raised from Valley City private sector or other grant sources

See table under “*Source of Matching Funds*”

Source(s) of Matching Funds:

<i>Hi-Line Prairie Gardens and Orchard – Project Funds</i>		
Development Corporation	\$10,000	Cash Grant - Approved
MDU ECO Fund 2017	\$2,500	Cash Grant - Pending
Valley City Private Sector	\$2,000	Cash on Hand to Date
KLJ Engineers	\$3,720	In-Kind Labor
Volunteer Labor	\$870	In-Kind Labor

Certifications *

I certify that this application has been made with the support of the governing body and chief executive of my organization.

I certify that if awarded grant funding none of the funding will be used for any of the exemptions noted on Page 1 of this application.

Narrative

Organization Information:

This project will be carried out by faculty members of the Valley City State University Fisheries and Wildlife program in conjunction with the City of Valley City and the Valley City Beautification Committee. The main project leader will be Dr. Casey Williams, Biology and Fisheries professor at VCSU. VCSU undergraduate students aided in the initial development of this project and will continue to play a large role in on-the-ground construction and maintenance, including planting, labeling, and maintaining native plant gardens. In addition, VCSU will be responsible for seeking additional funding for the project, marketing the orchard to schools and the community, and will include educational aspects into VCSU coursework.

The Valley City Beautification Committee led by Robert Falk, KLJ Engineering, and including 21 volunteer members, will be project leaders for orchard tree planting and maintenance. The Committee has agreed to coordinate additional fundraising, provide in-kind labor, materials, and cash for planting, aid in marketing the orchard to schools and the community, and drafting signage for plantings and project.

The City of Valley City has agreed to support this project by dedicating the land for the site, providing water for irrigation, maintaining trash removal, mowing unplanted areas, and supplying power to the gazebo. To date the Electrical Division of Public Works has done tree stump removal and the initial leveling for the retaining wall foundation. The Valley City Fire Department has provided watering after the initial tree and orchard planting and during the time of heat and drought this summer. The Public Works Street Department has delivered twelve truckloads of free wood mulch.

Financial requirements of this grant will be administered by the VCSU Business Office and all monetary expenditures will require approval of VCSU, the City of Valley City, and the Valley City Beautification committee.

Purpose of Grant:

PROJECT BACKGROUND

During the Fall of 2012, the VCSU Science Department's Conservation Biology (Assistant Professor Casey Williams) course was approached by the U.S. Fish and Wildlife Service (Kurt Eversman, Valley City National Fish Hatchery) concerning construction of a native plant pollinator garden to be located at the Pomeroy Estate on VC National Fish Hatchery grounds approximately four miles north of Valley City. VCSU undergraduate students prepared a grant proposal and received funding approval during early 2013. During the fall of 2013, Fisheries and Wildlife Science students completed construction on the small garden, including a gravel path and 35 native plant species. VCSU students continue to maintain the garden and it has been a success. The plants have become well established, native pollinators are present, and community members visit regularly. In addition, students involved with this project are very proud of the outcome, resulting in increased appreciation of community service among them. With support from the North Dakota Outdoor Heritage Fund, VCSU would like to replicate this

successful project on a much larger scale, in a more accessible location, and increase community support with the addition of a community orchard.

NEED FOR PROJECT

Pollinators play a crucial role in flowering plant reproduction and in the production of most fruits and vegetables. Apples, tomatoes, berries, and much more would not be available without pollination. Fruits and seeds of flowering plants are an important food source for both people and wildlife. The seeds that are utilized by people or wildlife will eventually produce new plants that will help maintain the plant population. Over 75% of all flowering plants are pollinated by animals. In 2010 in the US, pollination by honey bees contributed to over \$19 billion of crops. Pollination by other insect pollinators contributed to nearly \$10 billion of crops in 2010 (Pollinators, U.S. Fish and Wildlife Service 2015). In 2013 honey bees in North Dakota produced 33,120,000 pounds of honey valued at \$67,565,000 (National Agricultural Statistics Service, U.S. Department of Agriculture 2014).

A recent study of the status of pollinators in North America by the National Academy of Sciences found that the populations of honey bees and some wild pollinators are declining. These declines in wild pollinators may be a result of habitat loss and degradation. The population declines of managed bees are linked to introduced parasites and pathogens. (Pollinators, U.S. Fish and Wildlife Service 2015). This project is designed to educate the community on the importance of maintaining habitat for pollinators as well as providing examples of ways to naturally decrease chemical and water use in residential and commercial landscaping.

In regards to benefits that the community can experience, research has shown that children who spend time outdoors are healthier, have better grades, have longer attention spans, and are less likely to have depression than those who spend most of their time indoors (Wells, 2000).

Health professionals have found that green urban spaces and gardens increase physical activity and health of the members in that community. Urban gardens also help patients with dementia and attention-deficit-hypersensitivity disorder (Simpson, Western New England College 2011).

<http://www.fws.gov/pollinators/>

http://sfrc.ufl.edu/urbanforestry/Resources/PDF%20downloads/Wells_2000.pdf

www.honey.com/newsroom/press-kits/honey-industry-facts

http://www1.wne.edu/assets/20/pollinator_garden.pdf

GOALS

The goals of this project are many and target a variety of individuals and groups. Our major goals include providing opportunities for education and community engagement, improving the aesthetic value of our city, and providing wildlife habitat in an urban environment. These goals tie directly to the objectives of the North Dakota Outdoor Heritage Fund Program, primarily meeting **Directive D: Conserving natural areas and creating other areas for recreation through the establishment and development of parks and other recreation areas;** and

secondarily through **Directive C: Developing, enhancing, conserving and restoring wildlife and fish habitat on private and public lands.**

The City of Valley City and Valley City State University have a proven record of working together to improve our community and to provide for educational opportunities of students and citizens. The Hi-Line Gardens and Orchard is a prime example of community collaboration. This project supports the education of the value of native plants as ornamental plants and as components of the natural diversity of North Dakota. The project area is within walking distance of two elementary schools, Valley City Junior-Senior High School, and Valley City State University, allowing for quick field trips to promote plant identification skills, plant dynamics, and diversity of plants found in the Great Plains. In order to promote this education goal, appropriate educational signage will be in place permanently and VCSU will promote educational opportunities to local schools.

The Hi-Line Gardens and Orchard will also provide numerous opportunities for community engagement. In addition to providing help with planting and maintenance, community members will also be called on to help with local fundraising, educational and marketing efforts. During 2016, community members worked 154 hours for site preparation and tree planting including Boy Scouts, VCSU students, Public Works and Valley City Fire Department Employees and the Valley City Beautification Committee. A local graphic designer donated the design for our new logo. Successful orchard fruit production would promote community support through opportunities for free fruit and berry picking for personal use. These efforts continued in 2017 with over 200 hours of volunteer service by community members, VCSU students, Boy Scouts, and Valley City Public Works and Fire Department Employees.

This project will greatly improve the aesthetic value of Valley City. The site is located on the east and west side of 5th avenue in Valley City, the main route to the well-known High-Line Bridge and to Lake Ashtabula. Phase One of the project, the planting of the ornamental tree screening of the water detention pond and the fruit and nut orchard trees have already been planted in order to not lose out on previously awarded grant funding. Planting of the 69 ornamental and fruit trees has greatly increased the beauty of the area. Community members were also able to partake in fresh fruit from the orchard this year, promoting more support of this project. We would now like to continue improving the area by additional native plantings and to install walking paths to promote enjoyment of the area and to maximize handicap accessibility.

Last but not least, our goal is to improve wildlife habitat in an urban environment. Specifically, we seek to improve habitat for native butterflies, bees, birds, and other pollinator species. Plant species chosen for the garden include native species that are beneficial to pollinators. Numerous fruit species that are beneficial to birds have been planted to support birds seasonally.

STRATEGIES

The Hi-Line Gardens and Orchard will ultimately convert approximately 4 acres of a previously barren landscape in Valley City into an attractive, colorful outdoor recreational area with community and educational value. Success of this project can be used as a model for other small communities to support similar transformations of unused city areas.

In order to transform this area, we propose to establish a diverse community fruit orchard and to construct and maintain several areas consisting of native flowering plants and grasses. During the spring of 2015, project partners employed a landscape architect, Hanson Design Associates, to design a feasible landscape incorporating the requests of participating stakeholders (See Attachment 2).

The master plan for the project includes the planting of 20 ornamental trees, 39 large fruit trees, 10 nut trees, and 121 fruiting shrubs (See Table 1). The tree planting is complete, and the fruiting shrub planting is almost complete, along with construction of one large pollinator garden to be planted during the spring of 2018. In addition, approximately 15,000 square feet of the area will be used to establish more than 9,000 native flowering plants and grasses (See Table 2 for proposed plant species). Orchard areas will also be seeded with a low maintenance, drought resistant mix of grasses to provide a lush, green landscape throughout the summer. All plantings included on the Master plan will be completed except for the 7,415 square feet area of native grass (Native Grass Area #2) on the east side of 5th Ave NE.

For native flowering plants, each planting bed will be bordered by edging stones and covered by a weedbarrier and mulch to both conserve water and reduce weed growth, thus reducing required maintenance.

Once established, this project will require minimum maintenance. Selected grasses and flowering plants are drought resistant, native species that are self-sustaining. Prepared beds will include border stones, weed-barrier, and a mulch layer to hinder unwanted plant growth. Even so, periodic maintenance such as weeding, re-mulching, and repositioning of the weed barrier will be necessary and the responsibility of Casey Williams or his successor at VCSU (as per the MOU). Maintenance of the orchard trees and shrubs will be the responsibility of the VC Beautification Committee under the leadership of Robert Falk. Maintenance activities will be conducted by community volunteers and VCSU students as part of community involvement/citizenship projects. More than twenty community members representing numerous organizations have expressed interest in helping to maintain the gardens and orchard.

Table 1. Ornamental trees, fruiting orchard trees, and fruiting shrub plantings completed in the Hi-Line community orchard.

Ornamental Trees (Phase One Completed)			
Species	Number	Species	Number
Amur Maple	6	Prairie Gem Pear	5
Prairiefire Crabapple	5	Ivory Silk Lilac	4

Fruiting Orchard Trees (Phase One Completed)			
<i>Apple Trees</i>		<i>Crabapple Trees</i>	
Yellow Transparent	1	Dolgo	2
State Fair	1	Chesnut	2
Hazen	1		
Zestar!	1	<i>Pear Trees</i>	
Wolf River	1	Summer Crisp	2
Prairie Magic	1	Parker	1
Red Baron Crab	1	Luscious	1
Honeycrisp	1	Gourmet	1
Northwest Greening	1	Ure	1
Frostbite	1		
Haralred	1	<i>Plum Trees</i>	
Haralson	1	Pembina	2
Wodarz	1	Tecumseh	2
Connell Red	1	Toka	2
		Waneta	1
<i>Cherry Trees</i>		BlackIce Plum	1
Carmen Jewel	2		
Crimson Passion	2		
Evans Bali	3		
Nanking	2		

Nut Trees (Phase One - Completed)			
Hazelnut	5	Butternut	5

Fruiting Shrubs (Phase Two - Proposed)			
Chokecherry (Native)	12	<i>Honeyberry</i>	
Ben Lomand Currant	17	Borealis Haskap	6
Jewel Gooseberry	12	Indigo Gem Haskap	9
American Cranberrybush	7	Berry Blue Haskop	4
Trader Mulberry	2	Western Sandcherry (Native)	12
<i>Juneberry</i>			
Juneberry (Native)	10		
Honeywood Saskatoon	10		
Martin Saskatoon	10		
Thiesen Saskatoon	10		

Table 2. Native grass and forb species proposed for planting in the Hi-Line Garden and Orchard. Plant species are not limited to those included in the table.

Grasses	
Big Bluestem	Little Bluestem
Blue Grama	Prairie Cordgrass
Buffalo Grass	Prairie Dropseed
Canada Wild Rye	Sideoats Grama
Indian Grass	Switchgrass
June Grass	
Forbes/Flowering Plants	
American Columbine	Mountain Mint
Anise Hyssop	Narrow-leaved Coneflower
Black eyed Susan	New England Aster
Button Blazing Star	Pasque Flower
Common Ironweed	Pink New England Aster
Common milkweed	Prairie Milkweed
Compass Plant	Prairie Smoke
Cup Plant	Purple Prairie Clover
Golden Alexander	Purple Coneflower
Heath Aster	Purple Meadow Rue
Joe Pye Weed	Rose Milkweed
Large-flowered Beardtongue	Smooth Blue Aster
Leadplant	Stiff Goldenrod
Long-headed Coneflower	White Prairie Clover
Maximilian Sunflower	Wild Bergamot
Meadow Blazing Star	

TIMETABLE

Currently, Phase three construction of the Hi-Line Gardens and Orchard will begin during the summer of 2018 depending on availability of contractors required for construction. Construction will continue through 2019, depending on funding.

INNOVATIVE FEATURES

The Hi-Line Gardens and Orchard project will act as a model for smaller communities to convert unused lands into sustainable, productive community areas. In addition, this project will help to educate citizens about the value of native plants and to encourage the planting of native plants and fruit trees for both pollinator and human benefits.

Management of Project:

Valley City State University (Casey Williams) and the Valley City Beautification Committee member Bobby Koeplin will provide project oversight and maintain ultimate responsibility to ensure that the project is completed in a timely manner. However, all pertinent decisions will be based on a consensus of stakeholders, including VCSU, Valley City Beautification Committee, the City of Valley City, and community citizens.

Dr. Casey Williams – Assistant Professor, Department of Science, Valley City State University. Casey Williams and his students initiated this project based on his experience constructing a successful native plant garden on the Pomeroy Estate of the Valley City National Fish Hatchery. He has a substantial amount of experience as a grant project manager at Valley City State University and at his previous position at the Utah Water Research Lab, Utah State University (USU) in Logan, Utah. While at USU (2009-2011), Dr. Williams was in charge of the Institute for Natural Systems Engineering, supervisor of four professional employees, and manager of four grants totaling \$270,000. In conducting these grants, Dr. Williams worked closely with members of private industry (Garkane Power Company, Twin Lakes Canal Company), government agencies (Utah Division of Wildlife Resources, U.S. Forest Service) and conservation organizations (Trout Unlimited). At Valley City State University, Dr. Williams is collaborating with the United States Forest Service, Dakota Prairie Grasslands and North Dakota Game and Fish Department (Grants totaling \$148,000).

Bobby Koepplin, Advisor and active member of the Valley City Beautification Committee recently retired as Manager of Rural Development - Cass County Electric Cooperative. He has provided leadership for numerous finance, operations, fundraising, and construction committees and has supervised manufacturing, office building, tourism construction/renovation and community projects of over \$10 million. He has designed, written bid specifications, fund raised, bid, administered and actively supervised/participated in completion of 17 City tree planting projects over the past 17 years.

Dr. Madeline Luke served as a Valley City Commissioner from 2012-2016. She has been a Sanford Internist in Valley City since 1983 and was a Bush Medical Fellow 2011. Her portfolios at the city included electric, water, and public health. Dr. Luke's interests are in promoting a more resilient, environmentally friendly and healthy community. In addition to the Hi-Line Prairie Gardens and Orchard, she is working to advance green techniques to address Sheyenne River bank erosion and storm water management.

Evaluation:

Small scale progress and results of this project will be based on the successful planting of orchard trees and native plant gardens. At this scale, success is easily measured simply based on establishment and survival of plants and the occurrence of bees, birds, and native pollinators.

However, ultimate success of this project will be based on community support and involvement during planting and maintenance events. Once the orchard begins producing fruit, periodic observations of citizen activities will also be documented. In addition, educational aspects will be documented through use of organized field trip tracking and student surveys of the garden/orchard area.

Financial Information

ATTACHMENT: Project Budget

- I certify that a project budget will be sent to the Commission*

Sustainability:

The benefit of this project is that it is sustainable with very little additional funding once initial construction and planting is complete. Native plant species chosen for the project will, once established, maintain themselves. Preparation of beds will include weed barrier that limits maintenance required. In addition, grass areas will consist of drought resistant, self-seeding grass species.

Additional long-term costs associated with this project will include replacement of any orchard trees that reach the end of their lifespan. However, we expect these costs to be minimal.

To meet any long-term costs requirements that may arise, VCSU and the Valley City Beautification Committee will be responsible for fundraising through the community or available grants other than the North Dakota Heritage Fund. Replanting and further maintenance costs will be based on volunteer labor.

Partial Funding:

If less funding than requested is approved, some components of the project will be postponed until additional funding is provided through donations or other grant opportunities. Tree plantings and major native plant beds are considered the priority. Other aspects, while necessary, may be postponed until a later date.

Partnership Recognition:

If this project is supported by the North Dakota Outdoor Heritage Fund, on-site recognition of the Fund will be displayed at walkway entrances and at the major informational kiosk located in the proposed parking lot. Furthermore, a press release will be issued through the Valley City Times Record newspaper, KOVC Radio on-air and online, and through various Valley City State University media.

In order to garner community support, this project will be promoted through community events (planting days, fruit picking days) and social media. The North Dakota Outdoor Heritage Fund will be recognized as a major funding source

Awarding of Grants:

Valley City State University will be able to meet all provisions of the sample contract provided by the North Dakota Industrial Commission.

ATTACHMENTS

1. Budget Standard Form
2. Hi-Line Gardens & Orchard MASTER PLAN

Hi-Line Prairie Gardens and Orchard
PHASE THREE PROPOSED BUDGET INFORMATION

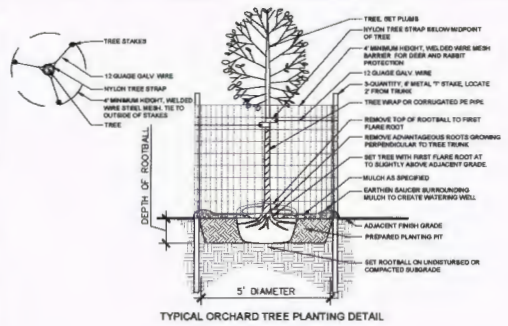
Cost Category	Phase One	Phase Two	Phase Three	Phase Four	Total	
Plant Materials	7,035.00	3,680.00	2,219.00	14,912.00	27,846.00	
Contract Labor	4,500.00	3,873.00			8,373.00	
Site Engineering	852.50	4,300.00	3,720.00		8,872.50	
Site Preparation	1,335.00	1,068.00	10,000.00		12,403.00	
Supplies	6,541.50	17,329.00	12,327.00		36,197.50	
Land Value	61,658.19				61,658.19	
Volunteer Labor	2,295.00		870	18,399.00	21,564.00	
In-Kind Supplies/Equipment	1,120.00				1,120.00	
Amenities				83,529.00	83,529.00	
Education		322.08	1,500.00	15,000.00	16,822.08	
SVCF Admin Fees		284.40			284.40	
Pilot Pollinator Garden	500.00	100.00			600.00	
Contingency				2,000.00	2,000.00	
TOTAL PROJECT COST	85,837.19	30,956.48	30,636.00	133,840.00	281,269.67	
Income Category						
Development Corporation			10,000.00		10,000.00	Cash Grant - Approved
Outdoor Heritage Fund			10,000.00		10,000.00	Cash Grant - Pending
Garrison Grant		6,457.00			6,457.00	Cash Grant - Approved
Community Orchard Project 2017		6,000.00			6,000.00	Cash Grant - Approved
Community Orchard Project 2016	9,000.00				9,000.00	Cash Grant - Approved
ND Forest Service - ATB	10,000.00				10,000.00	Cash Grant - Approved
Master Gardener Grant	500.00	100.00			600.00	Cash Grant - Approved
*US Bank		300.00			300.00	Cash Grant - Approved
*Sanford Health 2016		2,500.00			2,500.00	Cash Grant - Approved
Awesome Foundation		1,000.00			1,000.00	Cash Grant - Pending
*BEK Common Cents Grant 2016		250.00			250.00	Cash Grant - Approved
*BEK Common Cents Grant 2017		250.00			250.00	Cash Grant - Approved
*CCEC Operation Round-UP 2016		1,000.00			1,000.00	Cash Grant - Approved
*CCEC Operation Round-UP 2017		1,000.00			1,000.00	Cash Grant - Approved
*MDU ECO Fund 2016		2,000.00			2,000.00	Cash Grant - Approved
*MDU ECO Fund 2017			2,500.00		2,500.00	Cash Grant - Pending
*Valley City Private Sector		2,500.00	2,000.00		4,500.00	Cash on Hand to Date
VC Beautification Committee	411.50				411.50	Cash Grant - Approved
TOTAL CASH	19,911.50	23,357.00	24,500.00	0.00		
In-Kind						
KLJ Engineers	852.50	4,300.00	3,720.00		8,872.50	In Kind - Labor
Volunteer Labor	2,295.00	3,299.48	870.00	18,399.00	24,863.48	In Kind - Labor
In-Kind Supplies/Equipment	1,120.00				1,120.00	In Kind - Labor
City of Valley City	61,658.19				61,658.19	Land Value
TOTAL IN-KIND	65,925.69	7,599.48	4,590.00	18,399.00	96,514.17	
TOTAL PROJECT	85,837.19	30,956.48	29,090.00	18,399.00		
FUNDS TO BE RAISED	0.00	0.00	1,546.00	115,441.00		

Phase One: Boulevard & Orchard Tree Plantings

Phase Two: Fruiting Shrub & Pollinator Garden#3 Planting, and Retaining Wall

Phase Three: Site grading, walkways, rain garden, educational signage

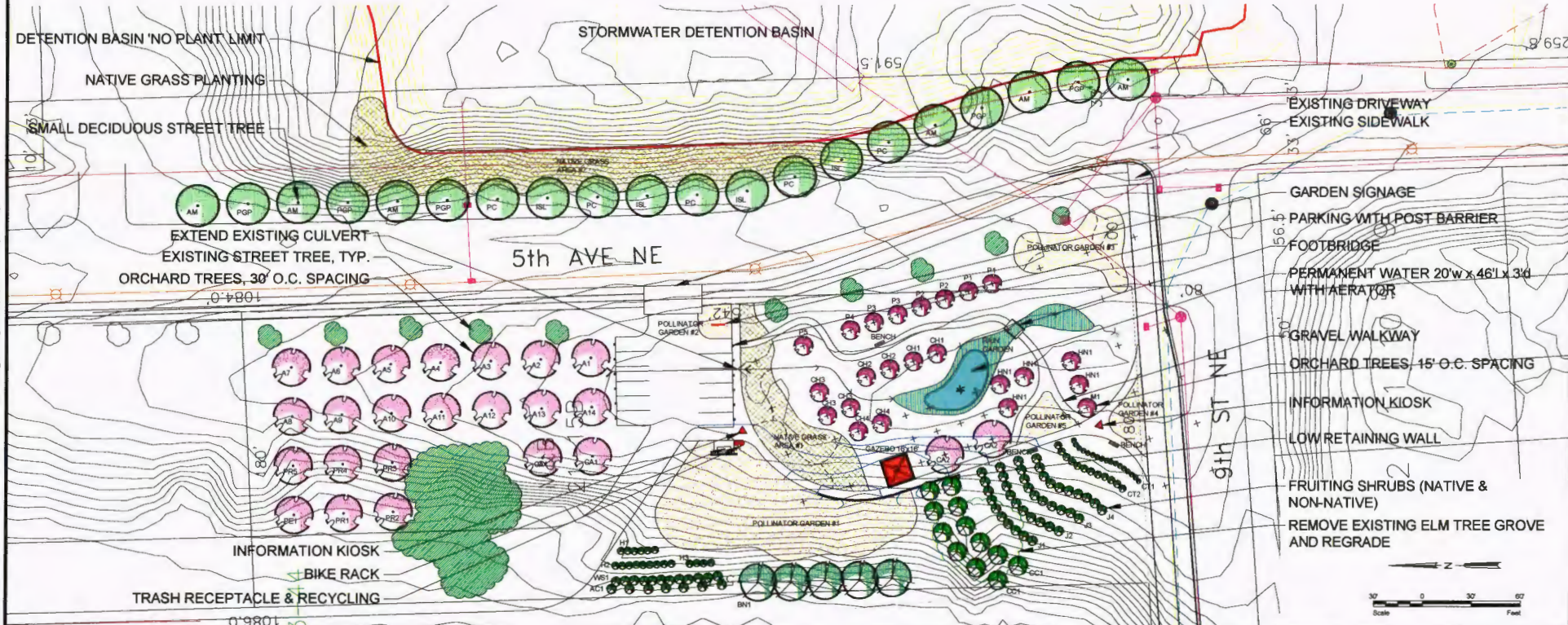
Phase Four: Gazebo, pollinator & natural grasses gardens, walkway lighting, kiosk, benches, trash & recycling receptacles, bike rack and pad, bridge over rain garden, netting



STREET TREE LEGEND

SYMBOL	NAME	COMMENTS	SIZE
SMALL DECIDUOUS STREET TREE			
AM	American Maple - <i>Acer ginnala</i>	15-20x15W	1 1/2 Caliper
PC	Prairie Crab - <i>Malus 'Pratensis'</i>	15-20x20W	1 1/2 Caliper
POP	Prairie Green Pear - <i>Pyrus ussuriensis 'MooCult'</i>	15-20x15W	1 1/2 Caliper
ISL	Ivory Silk Liboc - <i>Syringa reticulata 'Ivory Silk'</i>	25x15W	1 1/2 Caliper
ORCHARD TREE LEGEND			
APPLE TREES (A)			
A1	Yellow Transparent Apple - <i>Malus 'Yellow Transparent'</i>	Late July/Early Sept.	
A2	State Fair Apple - <i>Malus 'State Fair'</i>	Mid/Late Aug.	
A3	Hazen Apple - <i>Malus 'Hazen'</i>	Late Aug.	
A4	Zestar! Apple - <i>Malus 'Minnewashta'</i>	Late Aug.	
A5	Wolf River Apple - <i>Malus 'Wolf River'</i>	Early/Mid Sept.	
A6	Prairie Magic Apple - <i>Malus 'Prairie Magic'</i>	Mid Sept.	
A7	Red Baron Crab - <i>Malus 'Red Baron'</i>	Late Sept.	
A8	Honeycrisp Apple - <i>Malus 'Honeycrisp'</i>	Late Sept.	
A9	Northwest Greening Apple - <i>Malus 'Northwest Greening'</i>	Late Sept./Early Oct.	
A10	Frostbite Apple - <i>Malus 'Frostbite'</i>	Late Sept./Early Oct.	
A11	Harmont Apple - <i>Malus 'Lautz'</i>	Late Sept./Early Oct.	
A12	Harrison Apple - <i>Malus 'Harrison'</i>	Early Oct.	
A13	Whisper Apple - <i>Malus 'Whisper'</i>	Early Oct.	
A14	Cornell Red Apple - <i>Malus 'Cornell Red'</i>	Mid Oct.	
CRAB APPLE TREES (CA)			
CA1	Dixie Crab Apple - <i>Malus 'Dixie'</i>	16x16W	
CA2	Chester Crab Apple - <i>Malus 'Chester'</i>	16x16W	

SYMBOL	NAME	COMMENTS	SIZE
PEAR TREES (PR)			
PR1	Summer Crisp Pear		
PR2	Parlier Pear		
PR3	Luxuriosa Pear		
PR4	Comet Pear		
PR5	Urie Pear		
PEACH TREE (PE)			
PE1	Challenger Peach		
CHERRY TREES (CH)			
CH1	Carman Jewel Cherry - <i>Prunus X Kerasia 'Carman Jewel'</i>	6x10W	
CH2	Crimson Passion Cherry - <i>Prunus X Kerasia 'Crimson Passion'</i>		
CH3	Evans Ball Cherry - <i>Prunus cerasus 'Evans Ball'</i>	16x10W	
CH4	Hawking Cherry - <i>Prunus tomentosa</i>	6-10x10-10W	
PLUM TREES (P)			
P1	Pembina Plum - <i>Prunus 'Pembina'</i>	16x13W	
P2	Tecumseh Plum - <i>Prunus 'Tecumseh'</i>	13x13W	
P3	Toka Plum - <i>Prunus 'Toka'</i>	8x10W	
P4	Waneta Plum - <i>Prunus 'Waneta'</i>	16x13W	
P5	Blackice Plum - <i>Prunus 'Lydecker'</i>		
MULBERRY TREES (M)			
M1	Tracer Mulberry		
HAZELNUT (HN)			
HN1	Hazelnut		
BUTTERNUT (BN)			
BN1	Butternut - <i>Juglans cinerea</i>	45x30W	
CHOKEBERRY (CO)			
CO1	Chokeberry (Native)	12-25x10-20W	
CURRENT (CT)			
CT1	Red Leland Current	37x3W	
CT2	Jewel Gooseberry	37x3W	
CRANBERRY (HC)			
AC1	American Cranberrybush - <i>Viburnum triflorum</i>	10-12x10-12W	
JUNE BERRY (SASKATOON) (J)			
J1	Junberry (Native)	10x6W	
J2	Honeywood Saskatoon	10x6W	
J3	Marin Saskatoon	10x6W	
J4	Thiesen Saskatoon	10x6W	
HASKAP (HONEYBERRY) (H)			
H1	Bonnie Haskap - <i>Lonicera edulis</i> var. 'Bonnie'	47x4W	
H2	Indigo Gem Haskap - <i>Lonicera edulis</i> var. 'Indigo Gem'	47x4W	
H3	Berry Blue Haskap - <i>Lonicera edulis</i> var. 'Berry Blue'	47x4W	
WESTERN SANDCHERRY (WS)			
WS1	Western Sandcherry (Native)	3-4x2-4W	



		2415 3rd St. N. Fargo, ND 58102 P: 701.298.8392 C: 701.793.2759	Drawn by JH Date 10-21-15 Scale As Shown	Checked by JH	Hi-Line Prairie Gardens & Orchard Valley City, North Dakota	Master Plan PROJECT NO. 15022	SHEET 1 of 1
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No.	Revision	Date	By

C:\Users\jdm\Documents\Clients\15 022 Hi-Line City Pollinator Garden\Valley City Gardens Master Plan_CDR_1.dwg 09/13/2015 9:12 AM (88888888)

Budget Standard Form

Project Expense	OHF Request	Applicant's Match Share (Cash)	Applicant's Match Share (In-Kind)	Applicant's Match Share (Indirect)	Other Project Sponsor's Share	Total Each Project Expense
Plant Materials	\$2,219.00				\$0.00	\$2,219.00
Site Preparation	\$6,281.00				\$3,719.00	\$10,000.00
Site Engineering	\$				\$3,720	\$3,720.00
Supplies	\$				\$12,327.00	\$12,327.00
Education	\$1,500.00					\$1,500.00
Other Labor			\$870			\$870.00
Total Costs	\$10,000.00	\$0.00	\$870.00	\$0.00	\$19,766.00	\$30,636.00

REQUESTS

Plant Materials – amount requested (\$2,219.00) will be used for purchasing prairie plants and grasses to be planted into the 1,330 square foot rain garden.

Site Preparation – Site preparation includes grading of the site for gravel pathways

Education – includes cost for permanent, engraved metal and stakes for tree and fruiting shrub labels.

MATCH

Site Preparation includes grading and leveling of pathways

Site Engineering – KLJ will provide locating and staking services for all tree locations and pollinator garden perimeters

Supplies – includes costs of gravel/stone for pathways



VALLEY CITY
STATE UNIVERSITY

10/31/2017

North Dakota Industrial Commission
ATTN: Outdoor Heritage Fund Program
State Capital, 14th Floor
600 E Boulevard Avenue, Dept. 405
Bismarck, ND 58505

Dear Outdoor Heritage Fund Advisory Board,

Attached is an application from Valley City State University for a North Dakota Outdoor Heritage Fund grant to support Phase Three of the Hi-Line Gardens and Orchard in Valley City, ND. The proposed project is a collaborative effort between VCSU, the Valley City Beautification Committee, and the City of Valley City.

Participating groups, along with citizens of Valley City, have come together and with the help of Jim Hanson, Hanson Design Associates, developed a multi-faceted plan incorporating establishment of native flowering plants, orchard trees/shrubs, and outdoor amenities. Phase One of the project was completed during 2016 and included planting of a pilot pollinator garden, 20 ornamental trees and 49 fruit and nut trees. Phase Two was completed in 2017 and included construction of a hillslope retaining wall, planting of 121 fruiting shrubs, and construction of a 3,000-square foot native flowering plant garden (to be planted in spring of 2018). Phase 3 is described in the attached proposal.

The goals of this project are many, including:

- Educating youth and adults on tree care and fruit tree varieties suitable to North Dakota
- Promoting healthy eating by providing a range of fruit types
- Providing the public with appealing green space
- Educating youth and adults on plant species (grasses and flowering plants) native to the Great Plains region
- Providing habitat for native wildlife species (pollinating insects, birds)

The attached application and Master Plan details the objectives of the project, collaborative efforts of stakeholders and committees, and a detailed budget request for Phase 3 of the project. Thank you for your consideration of our funding request. If you have any questions, please contact Casey Williams (701.845.7457 or casey.williams@vcsu.edu).

Sincerely,

Casey S. Williams
Fisheries and Wildlife Science
Valley City State University
101 College St. SW
Valley City, ND 58072

Attachments:

ND Outdoor Heritage Fund Grant Application
Hi-Line Prairie Gardens & Orchard Master Plan
Memorandum of Understanding