TOWN OF NEDERLAND

OWNER'S PROJECT REQUIREMENTS

Nederland Pedestrian Enhancement Design (NedPeds) and Nederland Pedestrian Transportation and Storm Water Management Improvement Project

Nederland, Colorado

September 7, 2012

Revised October 4, 2012

Introduction:

The goal of the Owner's Project Requirements (OPR) is to understand the project goals for the Owner as it relates to sustainable, high performance design. The OPR also helps to influence decisions made during the design process by conveying the desires and interests of the Owner to the design team. This will be achieved through an outline of specific questions and general questions about community needs and sustainability goals and practices.

This document should be completed in the Pre-Design Phase of a project. After completion, the document should be distributed throughout the design team to increase understanding of the Owner's goals and interests.

The OPR is considered a "living document" and should be updated to include any changes to the Owner's project goals at the end of design and construction.

Location:

Nederland, Colorado

Construction:

The project is to be a 'Design-Bid-Build' construction process.

LEED Goals:

Meet the basic tenets of LEED per Town Resolution 2011-21 "*to insure that all projects developed in the Town of Nederland will comply with applicable sections of the LEED Rating System, and or other similar systems*". The project consultants should reference the "LEED Neighborhood Development Rating System" and the "Sustainable Sites Initiative Guidelines and Performance Benchmarks" to identify clear and measurable goals to increase the project's sustainability. They should also document which of these objectives could be addressed in this project and how they could be achieved.

Project Description:

The Town of Nederland has come to recognize that healthy ecosystems provide essential services that sustain life and therefore understands the importance of placing the preservation, protection, or enhancement of ecosystem services at the top of the community's priority list.

Additionally, the Town of Nederland recognizes the impact land development and management practices can have on ecosystem services.

Following is a list of ecosystem services that can be preserved, protected or enhanced through the use of sustainable land development and management practices:

1. Air and water cleansing:
    - Removing and reducing pollutants in air and water
    - Habitat functions
    - Providing refuge and reproduction habitat to plants and animals, thereby contributing to conservation of biological and genetic diversity and evolutionary process

2. Water supply and regulation:
    - Storing and providing water within watersheds and aquifers
    - Waste decomposition and treatment
    - Breaking down wastes and recycling nutrients

3. Erosion and sediment control:
    - Retaining soil within an ecosystem, preventing damage from erosion and siltation

4. Human health and well-being benefits:
    - Enhancing physical, mental and social well-being as a result of interaction with nature

5. Hazard mitigation:
    - Reducing vulnerability to damage from flooding, storm surge, wildfire and drought
    - Food and renewable non-food products
    - Producing food, fuel, energy, medicine or other products for human use

6. Pollination:
    - Providing pollinator species for reproduction of crops and other plants

7. Cultural benefits:
    - Enhancing cultural, educational, aesthetics and spiritual experiences as a result of inter- action with nature

The importance of ecosystem services were not considered in traditional land use development and management practices within the Town of Nederland. This has resulted in a loss of ecosystem functionality, including storm water management, erosion and sedimentation control.

Additionally, the Town has also come to recognize the ecological benefits of increasing the use of non-motorized transportation in Town and throughout our region.

The Town of Nederland has committed to becoming a sustainable community and has committed to move forward in a sustainable manner.

Background

A need for safe pedestrian/biking trails that would allow residents and visitors to safely and easily walk or bike between from the east to the west end of town was established by PROSAB and SAB. The central and south portions of town have been connected by a sidewalk built in 2009. The east to west connectivity is hampered by a lack of defined, non-motorized paths and increased traffic.

Several thunderstorms last summer also showed that there has been a dramatic increase in the velocity/volume of water in North Beaver Creek that caused damage to property adjacent to the creek. The eastern portion of 2nd Street is dirt, while the upper section to the west is paved. Open drainage ditches on each side of the street make crossing the street impractical for some residents and walking down the street is equally impractical due to many large pot holes that reappear after each large rain event. Children and young people going to the Family and Teen Center from other areas of town must use the center of the street for walking due to large drainage ditches on either side of the road, forcing them to walk in the middle of the street with and between cars. The need for safe pedestrian and bicycle paths is becoming more acute as development of vacant land brings more traffic and parked cars.

The Need for the Project:

Using 2nd Street to connect the Post Office to the Library will allow people living on 2nd Street to have safe, non-motorized access to both locations. Many children and families live on 2nd Street and the street has become hazardous with increased vehicular traffic, as well as from the deteriorating conditions of the road surface. The conditions of the road are unsustainable for the future due to erosion, instability, and continued maintenance.

In promoting a healthy community, Nederland strives to encourage alternative modes of transportation. The need for this is to encourage a healthier lifestyle, while also helping to decrease obesity which is a problem nationwide. Colorado's obesity rate is the lowest in the country for adults, but the obesity rate for children is rising. This is due in part to a decrease in physical activity and more passive indoor activities. In order to help lower this rate, healthy cities have adopted multi-modal forms of transportation. The proposed east/west pedestrian/biking path will help to achieve this purpose.

The need for controlling storm water in the mountains is a concern due to the severity of the storms and the spring runoff. The water from high elevations needs to be safely directed to collection points for use by cities in other parts of the state. Debris and hazardous materials need to be filtered along the riparian corridors to insure clean and healthy drinking water downstream.

This project will address two major issues for the Nederland community in its quest to becoming sustainable:

1. **Improved non-motorized circulation:**

Reducing our dependence on traditional non-renewable forms of transportation is a small but important step in becoming a sustainable community. Developing a non-motorized circulation system that allow community members to walk or bike to local destinations and to region transportation portals will result in cleaner air, healthier community members, and a greater sense of community. In order to improve non-motorized transportation, we must first understand how well our existing non-motorized transportation system functions, then determine where and how improvements should be made in order to be successful.

2. **Improved watershed functionality through focused improvements in storm water management systems:**

It is important for the town to develop and maintain a high functioning storm water management system which allows for safe transportation and protects property from damage, while also helping to retain and restore the watersheds natural ecosystem functionality. Preserving, protecting, enhancing and learning from healthy ecosystems are an essential part of becoming a sustainable community.

In order to effectively address storm water in our developed areas, the Town would like to understand how the watershed reacts naturally to storm water, then to develop solutions for managing storm water that work with the natural systems.

Therefore, tasks related to the inherent synergies of addressing non-motorized transportation and storm water management are:

- Development of a Need Statement (see Exhibit A attached) regarding non-motorized transportation and storm water management, including an explanation of the inherent synergies benefited by the chosen pathway route, with respect to existing traffic issues, and existing storm water management issues along the same corridor.
- Participation by consultants in an EPA-sponsored biomimicry workshop to determine focus of design objectives.
- Assessment of existing conditions regarding non-motorized transportation and storm water management.
- Voluntary compliance with EPA Municipal Separate Storm Sewer (MS 4) Standards.
- Development of measurable parameters that help our community determines functionality of our non-motorized transportation and storm water management systems.
- Development of design documents that result in improved non-motorized transportation and storm water management.

Funding Related Requirements:

The Town currently has funding available through the Denver Regional Council of Governments (DRCOG) that requires the following requirements which were listed in the original application for Phase II Sidewalks submitted in October 2010:

1. The project will provide an 8 ft. wide multi-use path for use by pedestrians and bicycles from East Street to Jackson Street connecting the Post Office with the Nederland Public Library and the RTD Park n Ride.
2. The path will connect to existing sidewalks and grade separation of North Beaver Creek.
3. The project will also include 20 bicycle racks (10 will be covered parking) and improved bus stops.
4. The bus stops will be improved by adding paving (currently the bus stops are dirt areas) and by providing a covered area at one stop.
5. The project will also include curb and gutter, curb ramps and crosswalk markings.

The Town intends to utilize this funding to focus on areas that offer the greatest potential for improvement to our non-motorized transportation system while at the same time addressing issues in our storm water management system.

Community Related Requirements:

• Coordination of several open community workshops geared toward better understanding of non-motorized transportation and storm water management. These workshops should be designed to encourage and improve our community's social interactions
• Protection of the town's rural and rustic character
• Protection of the environment through improved habitat and ecosystem functionality
• Utilization of local resources and labor while identifying opportunities for development of a localized economy
• Identification of opportunities for this project to further improve our community's social interactions
• Incorporating educational opportunities throughout the project
• Critical assessment of each decision for opportunities to achieve the following:
• Reduce and eventually eliminate our dependence on fossil fuels and heavy metals
• Reduce and eventually eliminate our dependence on man-made chemicals that persist in nature.
• Reduce and eventually eliminate the destruction of nature.

Project Schedule and Budget (Owner):

The expected completion of this project is fall of 2015.

The total construction budget for the project is ($) 1,005,121

Future expansion goals: Pathway standards should be able to be incorporated town-wide

Flexibility needs: The design should accommodate future development

Schedule of operation: see attached document

Sustainability Goals and Objectives (Design Team): Top 5 goals for sustainability and energy efficiency (energy, water, materials, etc.):

Energy goals: To actively limit the embodied energy use of the project

Water goals: To comply with the EPA's Life Principles of Water

Material goals: To use pervious materials as well as recycled materials to the extent possible

Other: To preserve and restore ecological functionality while increasing the quality of water flowing into North Beaver Creek

Other: To design for a 100 year flood by following best practices and maximizing groundwater infiltration while limiting erosion and sedimentation.

Green Technologies and Systems (Design Team):

Top 3 green system or technologies that should be considered for this project:

1. Biomimicry (see attached document)
2. Use of pervious pavers and porous material
3. Incorporation of green infrastructure principles

Other Requirements (Owner):

Community requirements: Construction must provide safe infrastructure that enhances connectivity in the community

Aesthetic requirements: Construction should include planting of native vegetation to enhance natural beauty

Security requirements: *requires input from Ned PD*

Accessibility requirements: Construction should incorporate ADA compliant pathways

Communication requirements: Regular educational updates and reports should be provided to elected officials and residents throughout construction

Constructability requirements: Construction costs must not exceed the project budget

Health and hygiene requirements: Construction should ensure infrastructure that promotes and supports non-motorized traffic

Capacity requirements: Construction must accommodate necessary levels of traffic volume

Warranty Requirements: *Necessary information forthcoming from PW Department*

Measure of Success in terms of Sustainability (Owner):

1. Qualitative review of flooding and erosion in the area over time
2. Qualitative review of material durability over time
3. Qualitative review of ecological functionality over time
4. Qualitative review of pedestrian use over time

Owner's Rep Process

March 12	Release/Advertise RFQ for Owner's Representation (w/addendum)
April 2	RFQs due
April 7	BOT Approval of Owner's Rep Contract

Contractor/Construction Bidding Process

March 23	Advertising for Bids
April 2	Pre-Bid Meeting
April 16	Bid Opening
April 21	BOT Award to lowest Bidder (as required by federal/state procurement law)
May 5	BOT approves Contract
May 8	Notice to Proceed

Construction: May 8- September 30th