1.0 | Project Summary Information

1.1 Project Name (35 letters max) 800 North Trail

1.2 Project Type

1.3 Limits (descriptions should be identifiable. i.e: intersections, place names, landmarks, 35 characters max) 600 West to 900 West

1.4 Project Description (summary of project) Orem City proposes to construct a 10-foot wide trail on the north side of 800 North from 600 West to 900 West, a distance of 0.4 miles in two separate phases. Phase 1 includes constructing a new trail from 600 West to 675 West; Phase 2 proposes to construct the trail by widening the existing sidewalk from 675 West to 900 West. With the completion of these phases, the entire 800 North Trail would extend from I-15 to the mouth of Provo Canyon.

1.5 Sponsor (jurisdiction, agency name) Orem City, Utah County

1.6 Contact Information

Project Manager Paul Goodrich
Office Phone (801) 229-7320
Cell Phone Click here to enter text.
Fax (801) 229-7031
Email prgoodrich@orem.org

1.7 Cost Estimate

Total Project Cost Phase 1: $131,100; Phase 2: $428,300; Total: $559,400
PE Cost Phase 1: $11,000; Phase 2: 37,300; Total: $48,300
ROW Cost Phase 1: $18,000; Phase 2: $58,800; Total: $76,800
Construction Cost Phase 1: $94,200; Phase 2: $315,900; Total: $410,100
Funds already available to project Click here to enter text.
Soft Match proposed for project Click here to enter text.

1.8 Regional Significance

Is project in MPO transportation plan? Yes
Is project on a corridor on the Utah State Functional Class Map? No not a highway project
1.9 Air Quality Benefit (summarize CM/AQ Report, NA for non-CM/AQ eligible projects)

Based on a NOx emissions factor of 0.3 kg/mile, a CO emissions factor of 7.6 kg/mile, and a total project length of 0.4 miles, the total reduction in emissions for this project is 0.12 kg for NOx and 3.04 kg for CO.
2.0 | Project Scope
Enter NA for answers to questions not applicable to your project.

2.1 Describe purpose and need of project.
800 North is an important vehicular and pedestrian connector in Orem. The 800 North Trail provides a safe, separate facility for pedestrians adjacent to the roadway. However, there is a gap in the trail between 600 West and 900 West. The purpose of the project is to improve connectivity of pedestrian facilities in order to reduce safety conflicts.

2.2 Describe existing service/conditions
An existing trail extends along the north side of 800 North between I-15 and 900 West, and between 600 West and Provo Canyon.

2.3 Highway Project Information

- SR# or FA#
  NA

- Beginning Mile Post
  NA

- End Mile Post
  NA

- Length of project
  NA

- Existing number of Travel Lanes
  NA

- Width of facility.
  NA

- Facility surface type.
  NA

2.4 Transit / Pedestrian Facility Project Information

- Route#
  NA

- Length of project
  0.4 miles

- What is the expected use of the facility or program?
Multi-use pedestrian.

**What services are provided in the operating of this project?**
Pedestrian access and connectivity.

**2.5 Describe any equipment to be purchased** (buses, ITS, etc.).
NA

**2.6 Describe how project is consistent with local plans.**
Project is listed in the Orem Bike and Trails Master Plan.

**2.7 Describe how project is consistent with Utah County ITS plan.**
NA

**2.8 If phased or segmented, describe how the phase has logical termini and what will future phases consist of.**
The project connects existing segments of a trail. This project will complete the main trail between I-15 and Provo Canyon, but spur trails may also be constructed at a later date.

**2.9 Is project being coordinated with or constructed with a larger project?**
No.

**2.10 Describe how project will alleviate congestion on this or other facilities.**
Lack of connectivity along the trail limits its utility to trail users in replacing single-occupancy vehicle trips. By connecting trail segments the project will allow users to use alternative modes of transportation.

**2.11 Describe any traffic improvements.** (i.e lanes, signal coordination, ITS, turn lanes, bus pullouts, etc.)
NA

**2.12 Describe any safety improvements for vehicular and pedestrian traffic.** (i.e. raised median, channelization of turn movements, barriers, parkway strips, etc.)
By providing a multi-use pedestrian trail, the project will provide cyclists and pedestrians with an alternative to using busy streets.

**2.13 How are complete streets addressed with this project?** (plan for pedestrians, bikes, transit, trails, ITS)
The project is planned entirely for pedestrians and cyclists.

**2.14 Describe traffic control changes at intersections.** (include info to warrant changes)
NA

**2.15 What right-of-way is already secured?**
No right-of-way has been secured.
2.16 What additional right-of-way is needed?
Trail easements or right-of-way purchases will be required from three parcels.

2.17 Describe utility work to be performed and indicate who will do the work.
NA

2.18 What type of environmental work will most likely be needed?
Categorical Exclusion

2.19 Facility Design

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<th>Design Year Click here to enter</th>
<th>Design Year w/o Improvements</th>
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<td>Park and Ride Usage</td>
<td>NA</td>
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</table>
3.0 | Project Ranking

The following categories will be used by MPO staff to score each project. The points associated with each category show what total points MPO staff can give. MPO staff’s recommendations will be made available to the MPO TAC Committee for their use in making final project selection recommendations. MPO staff ranking is a tool to aid the MPO TAC Committee in their final selection. The committee is not required to pick projects solely on MPO staff ranks. Please note, if questions pertinent to the project are not answered, zero points will be given.

3.1 Congestion Relief (25 Points)

Explain if the project...

a) Provides an alternate transportation facility that corrects an identified congested problem? Areas of congestion have not been identified. However, completing these trail segments would increase both connectivity and access. This would result in increased use of the trail, removing vehicles from the road.

b) Reduces congestion by reducing the number of vehicles. Lack of connectivity along the trail limits its utility to trail users in replacing single-occupancy vehicle trips. By connecting trail segments the project will allow users to use alternative modes of transportation, reducing the number of vehicles.

c) Reduces the need for additional highway lanes for peak hour capacity.
   NA

d) Increases the efficiency of transportation system through traffic management measures.
   NA

e) Adds turning movements to relieve a congested intersection.
   NA

f) Design year number of users. Users include the average AADT for highways and users per day for transit, trails, and other projects.
   Click here to enter text.

g) 2020 V/C data (computed by MPO staff)
   NA

3.2 Mode Choice (25 points)

Explain if the project...

a) Benefits multiple transportation systems (transit and highway, pedestrian and transit). The project provides a multi-use pedestrian trail which completes a larger system and allows access to other trail systems. It will provide access to a future FrontRunner station and reduce the number of vehicles on the roadway.
b) Promotes alternative transportation solution to SOV use.

   By providing enhanced pedestrian access, the project promotes alternative transportation uses.

c) Creates or improves linkages between transportation modes.
   The project links to a planned future commuter rail stop at the Geneva Steel site in Vineyard. It also provides pedestrian connections to the local bus system.

d) Reduces physical, psychological, or economic barriers to carpool, bike, walk, or transit use.
   The project reduces barriers to bike, walk, and transit use, by providing a non-road trail for pedestrians.

e) Provides incentives to carpool, bike, walk, or transit use.
   The project provides incentives to bike and walk by providing an increase in trail length and better connections between areas.

3.3 Environmental Quality (15 points)

Explain if the project...

a) Provides cost effective emission reductions (amount of reduction justifies cost).
   The project will encourage the use of alternative transportation modes, reducing the number of vehicles on the road and contributing to the effort to maintain national air quality standards.

b) Helps efforts to attain and maintain national air quality standards.
   The project will encourage the use of alternative transportation modes, reducing the number of vehicles on the road and contributing to the effort to maintain national air quality standards.

c) Minimizes environmental impacts or reduces existing impacts (e.g. air/water/noise pollution).
   The project is expected to have minimal environmental impacts.

d) Enhances the natural, cultural, or historic environment.
   The project will enhance the cultural environment of the areas surrounding it by improving pedestrian accessibility.

e) Mitigates invasive impacts to existing neighborhoods/commercial areas (minimal relocations).
   There will be no relocations as a result of this project.

3.4 Safety (20 points)

Explain if the project...

a) Corrects/improves a verified or potential safety or accident problem.
   Click here to enter text.

b) Improves information/communications for traffic operations and emergency responders.
   NA
c) Reduces severity of crashes.
   This project will separate motorists and pedestrians/bicyclists, which is an especially effective
   safety tool as pedestrian-vehicle crashes are often among the most severe.

d) Enhances safe movement of pedestrian, bicycle traffic.
   The project will enhance safe movement of pedestrian and bicycle traffic by providing a
   separated multi-use non-motorized trail for their use.

e) Provides an intermodal safety improvement (e.g. separation of vehicles-trains, vehicles-
   pedestrian).
   The project provides a separate trail, separating vehicles from pedestrians.

3.5 Other Considerations (15 points)
   Explain if the project...

a) Effectively distributes funding throughout the MPO area.
   The project will complete a trail connecting Vineyard, Orem, and Provo.

b) Phases project in a manner that the MPO can use limited funds efficiently.
   The project will complete the trail, providing an important transportation linkage at little cost.

c) Cost effectiveness is appropriate for the amount of improvement made.
   The project can be constructed at a reasonable cost for the length of improvements made and
   will provide an important connection for the cost.

d) Benefits transportation users from adjacent municipalities.
   The project will benefit transportation users from Vineyard, Orem, and Provo by completing the
   800 North Trail between I-15 and Provo Canyon.

e) Is supported by elected officials.
   The project is supported by the Orem City Council, Utah County, and the Utah Department of
   Transportation.
4.0 | Air Quality Report
All projects that are eligible for CM/AQ and CM/AQ-PM2.5 funds must complete this report. These funds are eligible for projects and programs countywide.

4.1 Eligibility
CM/AQ funds can only be used for projects and programs that a direct benefit to air quality can be demonstrated. Highway expansion, such as new single occupancy vehicle lanes, is not eligible. Turn lanes at congested intersections, transit programs, pedestrian and trail projects, signal modernization, ITS, and IM programs are typical eligible CM/AQ projects.

4.2 CM/AQ Program
The purpose of the CM/AQ program is to fund transportation projects or programs that will contribute to attainment or maintenance of the National Ambient Air Quality Standards (NAAQS) in Ozone (O₃), Carbon monoxide (CO), Particulate Matter – 10 microns (PM₁₀), and PM₂.₅ non-attainment and maintenance areas. The city of Provo is a maintenance area for CO and Utah County is a non-attainment area for PM₁₀ and PM₂.₅.

4.3 Completing this Report
All projects eligible for CM/AQ funds must complete this report. Completing this report can be quite technical, Susan Hardy, Air Quality Coordinator at Mountainland, can help with filling out this report. Contact her at 801/229-3842 or shardy@mountainland.org

4.4 Quantitative Analyses
A quantitative assessment of how a proposed project or program is expected to reduce emissions is important to assist in selecting the most effective use of this fund. List below all travel benefits directly related to this project. Air quality benefit calculations must utilize Mobile 6. The air quality analysis should include assessing emission reductions of transit, traffic flow improvements, ITS projects and programs, ridesharing, bicycle and pedestrian improvements. Complete at least one of the sections below. If quantitative analyses cannot be done, do a qualitative assessment in 4.3.

   a) Vehicle Miles Traveled
   Number of Vehicle Miles Traveled reduced (VMT): NA
   Average distance of trips reduced: NA
   Emission reduction per average weekday: NA

   b) Idling Time
   Average idling time per vehicle reduced: NA
   Number of vehicles with reduced idling time: NA
   Emission reduction per average weekday: NA

   C) Vehicle Speed
   Average change in vehicle speed (speed before and after): NA
   Number of vehicles affected: NA
   Emission reduction per average workday: NA
4.5 Qualitative Assessment

Although a quantitative analyses of air quality impacts is required whenever possible, some improvements may not lend themselves to rigorous quantitative analysis, because of the projects characteristics or because practical experience is lacking to adequately analyze the project. In these cases, a qualitative assessment based on a reason and logical examination of how the project or program will decrease emissions and contribute to attainment or maintenance of a NAAQS is appropriate.

Based on a NOx emissions factor of 0.3 kg/mile, a CO emissions factor of 7.6 kg/mile, and a total project length of 0.4 miles, the total reduction in emissions for this project is 0.12 kg for NOx and 3.04 kg for CO.
5.0 | Project Cost Estimate

To develop a project cost estimate, please supply a detailed cost breakdown of your unit costs, inflation, equipment, right-of-way, contingency, etc. To do so, use the Concept Costs Estimate Excel form provided by UDOT (available on Mountainland.org website). Non-construction projects such as equipment purchases, operations, administration programs, studies, etc. can use other methods to show their estimated costs. All sheets or methods used should be submitted as part of the Supplemental Information accompanying the Concept Report.

5.1 Cost Summary
Summarize the information from the Costs Estimate Excel form or other method. Enter NA for items that do not apply to the project.

a) Preliminary Engineering Phase 1: $11,000; Phase 2: 37,300; Total: $48,300
b) Environmental Work Phase 1: $3,700; Phase 2: $12,400; Total: $16,100
c) Construction Phase 1: $94,200; Phase 2: $315,900; Total: $410,100
d) UDOT Review (project cost <$500k = $5k, >500K = $10k) Phase 1: $5,000; Phase 2: $5,000; Total: $10,000
e) Construction Engineering Phase 1: $11,000; Phase 2: $37,300; Total: $48,300
f) Subtotal Phase 1: $124,900; Phase 2: 407,900; Total: $532,800
g) Inflated Cost Factor (inflate to year of construction) Phase 1: $6,200; Phase 2: $20,400; Total: $26,600
h) Total Cost Phase 1: $131,100; Phase 2: $428,300; Total: $559,400
i) Non-MPO Funds Available to Project Click here to enter text.
j) MPO Federal Funds Request (includes 6.77% local match) Click here to enter text.

6.0 | Supplemental Information
Please submit any supporting documentation including maps, diagrams, charts, cost estimates, etc. that will allow MPO and UDOT staff and any Technical Advisory Committee to make an informed decision regarding the proposed project. Keep Supplemental Information submittals to 8 pages total.

6.1 Concept Report Submittal
In order to facilitate the distribution of the Concept Reports and any supplemental information, all Concept Reports shall be combined with any supplemental information and saved in PDF format as one document. Please note that this might create a large data file that might be too large to emailed. Plan accordingly to submit your report in electronic format (CD, DVD, Flash Drive) by the required due date. Concept Reports are due by Thursday 24 April 2014 at 6pm.

6.2 Contacts, Questions
For help with the Concept Report or questions, please contact:

Shawn Eliot, AICP
586 East 800 North, Orem, UT  84097
p.801/229-3841   f.801/229-3801
email seliot@mountainland.org
### CONCEPTUAL COST ESTIMATE

**Project:** 800 North Trail Phase I (600 W to 675 W)

**Date:** 4/15/2014

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**CONSTRUCTION COSTS**

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**SUBTOTAL**

**TOTAL COST**

**Assumptions**

- Quantities are approximate and intended for planning purposes only.
- Concrete trail behind utility poles, similar to trail between 400 W and 600 W.
## CONCEPTUAL COST ESTIMATE

**Project:** 800 North Trail PH II (675 W to 900 W)

**Date:** 4/15/2014

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**CONSTRUCTION COSTS** $315,900

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**SUBTOTAL** $407,900

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**TOTAL COST** $428,300

 Assumptions
- Quantities are approximate and intended for planning purposes only.
- Concrete trail behind utility poles, similar to trail between 400 W and 600 W.