1.0 | Project Summary Information

1.1 Project Name (35 letters max) Mapleton Lateral Canal Trail- Ph. 2

1.2 Limits (descriptions should be identifiable. i.e: intersections, place names, landmarks, 35 characters max) Canyon Road - Sp. Fork River Trail.

1.3 Project Description (summary of project) Connecting Phase 1 of the trail to the Hobble Creek Parkway Trail and the Spanish Fork River Trail. 10' asphalt trail.

1.4 Sponsor (jurisdiction, agency name) Mapleton City (lead agency), Springville City (co-sponsor), Spanish Fork City (co-sponsor)

1.5 Contact Information
   Project Manager Matt Brady, AICP
   Office Phone (801) 806-9108
   Cell Phone Click here to enter text.
   Fax (801) 489-5657
   Email mbrady@mapleton.org

1.6 Cost Estimate
   Total Project Cost $3,881,000
   MPO Federal Funds Request (include 6.77% local match) $3,881,000
   Non-MPO Funds Available to Project N/A
   PE Cost $221,000
   ROW Cost $402,000
   Construction $3,258,000

1.7 Regional Significance
   Is project in MPO transportation plan? Yes
   Is project on Utah State Functional Class Map? No not a highway project

1.8 Air Quality Benefit (summarize CM/AQ Report, NA for non-CM/AQ eligible projects) Approximate reduction of 64.4 kg/day for CO, and 2.8 kg/day for NOX.
2.0 | Project Scope
Enter NA for answers to questions not applicable to your project.

2.1 Describe purpose and need of project.
The purpose of the project is to provide a regional north-south trail connection through southern Utah County. Currently there are no such corridors in southern Utah County. This trail will connect to the Bonneville Shoreline Trail on the north and south ends, and will connect to the Hobble Creek Parkway Trail and Spanish Fork River Trail.

2.2 Project length in miles.
6.04 miles.

2.3 Type of facility.
Multi-use / non-motorized trail.

2.4 Width of facility.
10’-wide asphalt / 4’ wide adjacent crushed limestone surface.

2.5 Facility surface type.
Asphalt / adjacent crushed limestone surface.

2.6 Expected use of facility or program.
Pedestrians, cyclists, equestrians.

2.7 What services are provided in the operating of this project?
N/A.

2.8 Describe any equipment to be purchased (buses, ITS, etc.).
N/A.

2.9 Describe how project is consistent with local plans.
This trail is included in the Trails Master Plans of Mapleton City, Springville City, and Spanish Fork City.

2.10 Describe how project is consistent with MPO transportation plan.
This project is included on the Bicycle & Pedestrian Projects Map in the 2040 Metropolitan Transportation Plan. The southern segment between Mapleton Main Street and US-6 is further identified as a priority project in the plan.

2.11 Describe how project is consistent with Utah County ITS plan.
N/A.

2.12 If phased or segmented, describe how the phase has logical termini and what will future phases consist of.
This is Phase 2 of 2; no future phases after this phase are proposed. The proposed termini are the existing Hobble Creek Parkway Trail and the existing Spanish Fork River Trail.

2.13 Is project being coordinated with or constructed with a larger project? Another project currently being proposed for the 2012 TIP is the Spanish Fork River Trail, which would complete some of the middle segments of the Spanish Fork River Trail, extending the entire trail network.

2.14 Describe how project will alleviate congestion on this or other facilities. The trail is expected to alleviate some local vehicle trips that otherwise would have been undertaken by automobile - trips to and from schools, churches, parks, other homes, future commercial, etc. It will cross several of Mapleton's collector streets, and will provide an alternate means of transportation. The project is also expected to improve traffic safety on adjacent roads that are currently frequented by pedestrians and bicyclists but do not have sidewalks or adequate shoulders.

2.15 Describe any traffic improvements. (i.e lanes, signal coordination, ITS, turn lanes, etc.) N/A.

2.16 Describe any safety improvements for vehicular and pedestrian traffic. (i.e. raised median, channelization of turn movements, barriers, parkway strips, etc.) The majority of the trail will be completely separate from road corridors. Where it follows roads, it will be separated from the roadway by park strips or curb and gutter.

2.17 How are complete streets addressed with this project? (plan for pedestrians, bikes, transit, trails, ITS) Portions of the trail are proposed along local streets, creating areas for pedestrians and bicycles.

2.18 Describe traffic control changes at intersections. (include info to warrant changes) N/A.

2.19 What right-of-way is already secured? Segments along Springville 2900 East, Mapleton 1900 East, Mapleton 1600 North, and the canal/pipeline corridor, US Highway 6, and the Spanish Fork River bottoms area near the wind farm.

2.20 What additional right-of-way is needed? Segments along Mapleton 1900 East, Mapleton 1600 North, the canal/pipeline corridor (the majority needed is covered by development agreements), and the Spanish Fork River bottoms area near the wind farm.

2.21 Describe utility work to be performed and indicate who will do the work.
Minor utility re-locations may be required along Mapleton 1900 East Street. These would be done by the applicable franchised public utility companies.

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

2.23 Facility Design

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<th></th>
<th>Current Conditions</th>
<th>Design Year Click here to enter</th>
<th>Design Year w/o Improvements</th>
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<tbody>
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<td>Average Daily Traffic</td>
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<td>Design Speed</td>
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<td>*Accident Rate</td>
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<td>N/A</td>
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<td>N/A</td>
</tr>
<tr>
<td>Ped/Trail Usage</td>
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<td>N/A</td>
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<tr>
<td>Park and Ride Usage</td>
<td>N/A</td>
<td>N/A</td>
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</tbody>
</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.

3.1 Congestion Relief (25 Points)
Explain if the project...

a) Provides an alternate transportation facility that corrects an identified congested problem?
No.

b) Reduces congestion by reducing the number of vehicles.
Yes - according to Susan Hardy with MAG, this project is assumed to provide similar benefits to other trail facilities throughout Utah County.
c) Reduces the need for additional highway lanes for peak hour capacity. 
N/A.

d) Increases the efficiency of transportation system through traffic management measures. 
N/A.

e) Adds turning movements to relieve a congested intersection. 
N/A.

3.2 Mode Choice (25 points)
Explain if the project...

a) Benefits multiple transportation systems (transit and highway, pedestrian and transit). 
Yes - benefits road and pedestrian facilities.

b) Promotes alternative transportation solution to SOV use. 
Yes.

c) Creates or improves linkages between transportation modes. 
Yes - created linkages between automobile and pedestrian modes.

d) Reduces physical, psychological, or economic barriers to carpool, bike, walk, or transit use. 
Yes - reduces physical and psychological barriers to bike or walk.

e) Provides incentives to carpool, bike, walk, or transit use. 
Yes - provides incentives to bike or walk.

3.3 Environmental Quality (15 points)
Explain if the project...

a) Provides cost effective emission reductions (amount of reduction justifies cost). 
Yes - according to Susan Hardy with MAG, this project is assumed to provide similar benefits to other trail facilities throughout Utah County.

b) Helps efforts to attain and maintain national air quality standards. 
Yes, this project does provide an overall benefit to national air quality standards, specifically carbon monoxide (CO) and nitrogen oxides (NOx).

c) Minimizes environmental impacts or reduces existing impacts (e.g. air/water/noise pollution). 
This is a non-motorized trail, which should reduce VMT, resulting in less air, water, and noise pollution which result from motor vehicle travel.

d) Enhances the natural, cultural, or historic environment.
This project enhances access to Hobble Creek and the Spanish Fork River. It also provides the opportunity to highlight the historical importance of the Mapleton Lateral Canal and the Strawberry Valley water project in the settlement of southern Utah Valley.

e) Mitigates invasive impacts to existing neighborhoods/commercial areas (minimal relocations).
The trail corridor is to be built primarily on a previously piped canal corridor and along local streets. There are no residential or commercial relocations needed.

3.4 Safety (20 points)
Explain if the project...

a) Corrects/improves a verified or potential safety or accident problem.
The trail corrects potential vehicle-pedestrian safety problems along Springville 2900 East, Mapleton 1900 East, Mapleton 1600 North, and US Highway 6 where there are currently no sidewalks or other pedestrian facilities.

b) Improves information/communications for traffic operations and emergency responders.
N/A.

c) Reduces severity of crashes.
The project provides trail separated from road traffic, which should reduce conflicts between vehicles and non-motorized users.

d) Enhances safe movement of pedestrian, bicycle traffic.
Yes - provides a safe north-south corridor through the entire length of Mapleton and portions of Spanish Fork and Springville.

e) Provides an intermodal safety improvement (e.g. separation of vehicles-trains, vehicles-pedestrian).
Yes - provides vehicle-pedestrian separation.

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

a) Effectively distributes funding throughout the MPO area.
Yes - historically, most TIP funds have been distributed to cities in northern Utah County rather than southern Utah County. This project is part of southern Utah County. Mapleton has only received TIP funds once before. The same is true generally of most of the other southern Utah County cities. This should be given particularly high consideration.

b) Phases project in a manner that the MPO can use limited funds efficiently.
Yes. This project provides logical termini for the Mapleton Lateral Canal Parkway Trail - Phase 1, and creates trail network connections totalling 16.68 miles (potentially several more miles if the concurrently proposed Spanish Fork River Trail project is funded this TIP cycle).

c) Cost effectiveness is appropriate for the amount of improvement made.  
   Yes.

d) Benefits transportation users from adjacent municipalities.  
   This project benefits users in 3 municipalities: Springville, Mapleton, and Spanish Fork.

e) Is supported by elected officials.  
   Yes.
4.0 | Air Quality Report
All projects that are eligible for CM/AQ funds must complete this report.

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 (O\textsubscript{3}), Carbon monoxide (CO), Particulate Matter - 10 microns (PM\textsubscript{10}), and PM\textsubscript{2.5} non-attainment and maintenance areas. The city of Provo is a maintenance area for CO and Utah County is a non-attainment area for PM\textsubscript{10} and PM\textsubscript{2.5}.

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): N/A
   Average distance of trips reduced: N/A
   Emission reduction per average weekday: N/A

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

C) Vehicle Speed
   Average change in vehicle speed (speed before and after): N/A
   Number of vehicles affected: N/A
   Emission reduction per average workday: Approximate reduction of 64.4
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.

Sections 4.4 (a-c) above are mostly applicable to roads projects rather than trails projects. In consultation with MAG, it is assumed that this trail will provide a comparable air quality benefit to other trails in Utah County. It is estimated that the Phase 1 and 2 of the trail, when completed at approximately 9.2 miles, trail will provide an approximate reduction of 64.4 kg/day for CO, and 2.8 kg/day for NOX.
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. 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 $221,000
b) Environmental Work (Included in construction category.)
c) Construction $3,439,000
d) UDOT Review (project cost <$500k = $5k, >500K = $10k) (Included in construction category.)
e) Construction Engineering $221,000
f) Subtotal $3,881,000
g) Inflated Cost Factor (inflate to year of construction) All figures listed are inflated costs.
h) Total Cost $3,881,000
i) Non-MPO Funds Available to Project N/A.
j) MPO Federal Funds Request (includes 6.77% local match) $3,881,000

6.0 | Supplemental Information

Please submit any supporting documentation including maps, diagrams, charts, cost estimates, etc. that will allow MPO staff and the MPO 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 to Mountainland

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 deliver your report in electronic format (CD, DVD, Flash Drive) to Mountainland by the required due date.

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
### PIN  ----  PROJECT #  ---- MAPLETON LATERAL CANAL TRAIL-PH. 2

**Cost Estimate - Concept Level**

#### Pre-Prepared By: Mapleton City

- **Date:** 5/7/2012

#### Approximate Route Reference Post (BEGIN) =  (END) =

- **Accumulated Mileage (BEGIN) =** (END) =

  - **Project Length:** 6.043 miles, 31,905 ft
  - **Current Year:** 2012
  - **Assumed Construction Year:** 2015

#### Construction Items Inflation Factor = 1.28

- 3 yrs for inflation

#### Assumed Yearly Inflation for Engineering Services (P.E and CE) (%/yr) = 2.5%

- Assumed Yearly Inflation for Urban Residential Right of Way (%/yr) = 0.0%
- Assumed Yearly Inflation for Urban Commercial Right of Way (%/yr) = 0.0%
- Assumed Yearly Inflation for non-Urban Right of Way (%/yr) = 0.0%

#### Items not Estimated (% of Construction) = 15.0%

- Preliminary Engineering (% of Construction + Incentives) = 10.0%
- Construction Engineering (% of Construction + Incentives) = 10.0%

### Construction Items

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<tr>
<th>Description</th>
<th>Cost</th>
<th>Remarks</th>
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<td>Roadway and Drainage</td>
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<td>Traffic and Safety</td>
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<td>Structures</td>
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<td>ITS</td>
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Subtotal: $1,780,486

- Items not Estimated (15%) $267,073

Construction Subtotal: $2,047,559

#### P.E. Cost

- P.E. Subtotal: $204,756 (10%)

#### C.E. Cost

- C.E. Subtotal: $204,756 (10%)

#### Right of Way Urban/Suburban Residential/Industrial

- Right of Way Subtotal: $401,600

#### Right of Way Urban Suburban Commercial

- Right of Way Subtotal: $0

#### Right of Way non-Urban/Suburban

- Right of Way Subtotal: $0

#### Utilities

- Utilities Subtotal: $0

#### Incentives

- Incentives Subtotal: $0

#### Miscellaneous

- Miscellaneous Subtotal: $0

### Cost Estimate (ePM screen 505)

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<th>Description</th>
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**TOTAL** $3,179,770

### PROPOSED COMMISSION REQUEST

**TOTAL** $3,179,770
NOTES:
1. ALL TREES, SHRUBS AND OTHER VEGETATION SHALL BE REMOVED FROM THE CLEAR ZONE.
2. CITY SHALL INSPECT EACH BASE COURSE OR FABRIC LAYER BEFORE COVERING.
3. ALL WEEDS SHALL BE SPRAYED AND KILLED WITH ROUNDUP OR AN APPROVED EQUIVALENT ONE WEEK BEFORE ANY WORK MAY BE PERFORMED, AND WITHIN 3 WEEKS OF THE PLACEMENT OF UNTREATED BASE COURSE.
4. TRAIL Lanes SHALL BE DELINEATED BY A CENTER, SINGLE, DASHED, YELLOW LINE.
Overall Trail Distance:
Phase 1: 3.16 miles (In Progress)
Phase 2: 6.04 miles (0.82 mi. North + 5.22 mi. South)
TOTAL: 9.20 miles

Regional Trail Connections:
Phases 1 & 2: 9.20 miles
Existing Hobble Creek Parkway Trail: 4.52 miles
Existing (East) Spanish Fork River Trail: 2.96 miles
TOTAL REGIONAL CONNECTIONS: 16.68 miles

North End of Phase 2 at Hobble Creek Parkway Trail (Adjacent to Canyon Road) Within Springville City
Trailhead (Approx. 8 spaces) proposed on former equipment staging area (Phase 1)
Phase 1
(Funded / In Progress)
3.16 miles
Phase 2
(Southern Segment)
5.22 miles
Phase 2
(Northern Segment)
0.82 miles
South End of Phase 2 Connects to the existing Spanish Fork River Trail south of Spanish Oaks Golf Course
Proposed Pedestrian Bridge Over Union Pacific Railroad
Connection to Spanish Fork via former railroad spur under US-6
Proposed Phase 2 (Asphalt) Trail
Existing Asphalt Trail
Other Proposed Asphalt Trail
Proposed Gravel or Dirt Trail
Phase Breaklines
US or State Highway
Local Roads
Local Roads - Unpaved
Railroads
City Boundaries
Parcels as of 12-20-11
Public Park
Legend

Map created by Mapleton City Community Development Department. Mapleton City makes no warranty with respect to the accuracy, completeness, or usefulness of this map. Mapleton City assumes no liability for direct, indirect, special, or consequential damages resulting from the use or misuse of this data.