



Transportation Project Sponsors

1. Project Sponsor (must be a public agency)–REQUIRED

Organization Name: Oregon Parks and Recreation Department	
Contact Person Name: Rocky Houston	Title: Park Trails Specialist
Street Address: 725 Summer St NE, Suite C	Phone:
City, State Zip:	
E-mail: rocky.houston@state.or.us	

2. Co-Sponsor(s)

List the organization names for any Co-Sponsors of this project:

Transportation Project Information

3. Project Name–REQUIRED

Project Name: Estacada to Boring Deep Creek Crossing - Cazadero Trail

4. Project Budget Summary - This table will automatically fill in.

	Project Funds	% of Project Costs
Total Costs	\$6,776,750	
Non-Eligible Costs		
Total Transportation Project Cost	\$6,776,750	100%
Matching Funds	\$700,000	10.33%
Requested Funds	\$6,076,750	89.67%

5. Provide a brief summary of the project (max 800 characters)–REQUIRED:

Construct a connection between one four mile and one three mile section of the Estacada to Boring segment of the Cazadero State Trail by constructing two Bicycle/Pedestrian Bridges across Deep Creek, and by constructing a bicycle/pedestrian crossing facility at Oregon 224. This connection will help link up this trail with the 23-mile Springwater Corridor, significantly expanding the area in Clackamas County served by this alternative transportation route.

6. Is this project a continuation of a previous Statewide Transportation Improvement Program (STIP) Project?

- Yes No



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If yes, describe the status of the previous STIP project.

7. Does this project complement or enhance an existing or planned STIP project? For example, does it provide a more complete solution for an existing project or is it intended to work with another planned project, including a "Fix-It" STIP project?

- Yes No

If yes, describe the relationship of this proposed project to the other, including planned timing of both projects.

This project works with the previous STIP projects to pave a portion of the Springwater Corridor in Clackamas County.

8. Project Problem Statement–REQUIRED

Provide a paragraph explaining the problem or transportation need the project will address:

Currently, there is a gap in the alternative transportation system. The gap is a crossing of two (2) creeks and Oregon 224. This project will complete the gap by constructing two (2) bicycle/ pedestrian bridges and a bicycle/pedestrian crossing of Oregon 224 at Barton.

9. Transportation Project Location–REQUIRED

City: <input style="width: 90%;" type="text" value="Barton"/>	County: <input style="width: 90%;" type="text" value="Clackamas"/>
MPO: <input style="width: 90%;" type="text" value="N/A"/>	Special District: <input style="width: 90%;" type="text" value="N/A"/>

Project Location Detail: (include as appropriate: road and milepost range, rail line and milepost range, GPS coordinates, bus route and stops, bike path or multipurpose trail locations, sidewalk locations, or other location detail)

Oregon 224 MP 14.6 ; Longitude -122.4080867017 Latitude 45.3894459370

10. Maps and Plans (Project Site and Vicinity Maps are required for all construction projects. Include other applicable maps or drawings, if available.)

<input checked="" type="radio"/> Attached/Upload <input type="radio"/> Not Applicable	Vicinity Map (8.5x11) (may be inset on site map page)
<input checked="" type="radio"/> Attached/Upload <input type="radio"/> Not Applicable	Site map/air photo (showing existing site) (8.5x11)
<input checked="" type="radio"/> Attached/Upload <input type="radio"/> Not Applicable	Site map (showing proposed construction area clearly marked) (8.5x11)



<input type="radio"/> Attached/Upload	Typical Cross Section Drawings (showing proposed construction funded by the requested funds clearly marked) (8.5x11)
<input type="radio"/> Not Applicable	

11. Project Description–REQUIRED

Clearly describe the work to be funded and describe what will be built, any services that will be provided, what equipment will be purchased, or project planning or environmental document efforts that will be paid for with Requested Funds. Include whether [Practical Design](#) considerations have been applied to the proposed project. Identify if the project can be completed in phases, and whether the project or phase will provide a complete, useful product or service. (Maximum 4000 characters)

OPRD completed an engineering feasibility study in 2008 of the Deep Creek Crossing bridge needs. The study looked at practical design solutions to minimize environmental impacts, contractibility factors and future maintenance of the bridges. The assessment allowed for the reduction in span for the Deep Creek bridge from 1,240 ft to 172 ft, for example. This proposed project requests funds to construct the most feasible bridge options for these two crossings.

What will be built:

The following will have construction drawings, permitting, construction and construction engineering completed as part of this project:

- 1 - Construct (1) 436 foot x 14 foot bridge over North Fork Deep Creek.
- 2 - Construct (1) 172 foot x 14 foot bridge over Deep Creek.
- 3 - Construct (1) pedestrian crossing of Hwy 224 @ Barton. A traffic study will determine if one of the following is the best approach: Hawk pedestrian crossing warning system, Signalized Intersection at Baker's Ferry Road and Hwy 224, Pedestrian under crossing, Pedestrian over crossing.

The bridges will be concrete and have an expected operational life of 50-75 years. The bridges will comply with the standards required by the American Association of State Highway and Transportation Officials (AASHTO), the Americans with Disabilities Act (ADA), Department of State Lands (DSL) / U.S. Army Corps of Engineers (USCOE), and all state and local requirements.

The bridge width is governed by the trail width, ADA requirements and typical emergency vehicle dimensions. The bridge length is governed by the width of the creeks to be crossed. The proposed bridge siting has been determined through the preliminary surveying and mapping, and the site alternatives study previously completed by OPRD.

Phasing:

The project could be phased, but would have implications to the usefulness of the multi-modal transportation facility.

Option 1 - Fund the P&E phase, which would provide construction ready documents and permits for a future funding cycle or source.



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Option 2 - Fund North Fork Deep Creek Bridge. This could create a connection with a surface street (SE Yewwood Dr). This connection is not ideal. However, this bridge is the most critical due to it's length and complexity.

12. Primary Project Mode(s)

<input type="checkbox"/> Passenger Rail	<input type="checkbox"/> Light Rail	<input type="checkbox"/> Bus/Transit
<input checked="" type="checkbox"/> Pedestrian	<input checked="" type="checkbox"/> Bike	<input type="checkbox"/> Highway/Road
<input type="checkbox"/> Other:		

13. Project Activities

<input checked="" type="checkbox"/> Infrastructure Engineering, Design, or Construction	<input type="checkbox"/> Project Planning and Development	<input type="checkbox"/> Operations/Service Delivery
<input type="checkbox"/> Capital Equipment Purchases	<input type="checkbox"/> Transportation Demand Management	<input type="checkbox"/> Other

Timetable and Readiness Information

14. Indicate anticipated timing for the following activities, as applicable. Provide a date, if known, or year-REQUIRED.

Anticipated Dates	Activity
2016	Requested STIP Funding Year (e.g. 2016, 2017, 2018) - REQUIRED
10/2015	Bid Let Date
5/2017	Construction Contract Award
11/2017	Construction Complete
	Capital Equipment Purchase
12/2017	Operations/Service Begin
1/2017	Other Major Milestone:
3/2018	Project Completion/End of Activities funded through this request - REQUIRED

15. Is the proposed project consistent with adopted plans? (Plans may include, for example, transportation plans, mode plans such as bike/ped or transit plans, economic development plans, comprehensive plans, corridor plans or facility plans.)-REQUIRED

- Yes
 No



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Describe how the proposed project is consistent with adopted plans. List plans that include the project (with page numbers if possible) or describe how the project meets plan intent. If the project is not consistent, explain how and when plans will be amended to include the project.

This project will provide a critical connection required to create seamless link the corridor from Portland to Estacada. The project is identified in or consistent with the following plans:
2035 Clackamas County Transportation Plan (In Process of Updating, 2012);
2035 Metro Regional Transportation Plan;
2008 OPRD Development Plan for Cazadero Trail;
2008 Blue Ribbon Committee identified Urban to Rural Trail Priority Trail (Metro);
2008 Statewide Comprehensive Outdoor Recreation Plan;
2008 Oregon Statewide Physical Activity Plan;
2006 Metro Natural Area Bond - identified as "Great Eight" Regional Trail Projects;
2003 Clackamas County Transportation System Plan: Bicycle Master Plan;
2005 Oregon Trails 2005-14: A Statewide Action Plan; and
1994 Metro Trails and Greenspaces Plan.

16. Is the proposed Transportation Project consistent with Major Improvement Policies including [OTP Strategy 1.1.4](#) and [OHP Action 1G.1](#)?—REQUIRED

- Yes No

Describe how the proposed investment is consistent with OTP Strategy 1.1 and for highway projects, OHP Action 1G.1. If the project corresponds to a later priority in these strategies, describe how higher priority solutions have already been tried or why they are not applicable or not appropriate to the location.

The proposed investments in the Estacada to Boring segment of the Cazadero Trail are consistent with OTP Strategy 1.1 by doing the following:

- Manages existing transportation system effectively by addressing alternative mode crossing need, which will address traffic flow and efficiency and separate use.
- Makes minor improvement to the transportation system that will greatly improve connectivity and the alternative mode system's efficiency and operational capacity, while improving Oregon 224 traffic flow.
- Adds capacity to the alternative mode transportation system in rural Clackamas County
- Adds a new alternative mode transportation system for Clackamas County.

The proposed investment is consistent with OHP Action 1G.1 by doing the following:

- Protects the existing system through preserving the functionality of Oregon 224 by addressing the pedestrian crossing, meeting the alternative transportation mode demands while improving traffic operations by separating use and controlling bicyclists and pedestrians crossing a rural highway.
- Improves efficiency of the existing highway facility by making a minor improvement to the alternative mode crossing of the highway and creating connections to the larger alternative mode corridor.
- Adds a new facility to the system by adding the bridges and highway crossing to an alternative mode facility.

Project Benefit Information

Questions 17 through 26: Describe how the proposed solution will help achieve the outcomes listed below. Describe the benefits that the proposed solution is expected to achieve and provide documentation of those benefits where available, such as summaries of data analysis or modeling results, or letters of commitment from participants or employers. Where appropriate, also include in the description whether the proposal will mitigate or prevent a negative impact to the desired outcome.

This information and information throughout the application will be used as input to the STIP decision process. It is not expected that every solution will help achieve every benefit. Different types of solutions are likely to have different kinds of benefits and no type of solution or benefit is assumed to be more important than others. Please provide a realistic description of expected benefits of the proposed solution and feel free to use N/A where the benefit or outcome listed does not apply to the proposal.

17. Benefits to State-Owned Facilities

Outcome sought: preserve public investment by maintaining efficient operation of state-owned highways and other facilities through operational improvements, local connectivity, congestion-reducing projects and activities, etc.

For example, will the solution:

- Provide an alternative to travel on state owned facilities?
- Cost less than a state facility improvement with equal benefits?
- Include local efforts to protect the investment such as an Interchange Area Management Plan?
- Plan for or contribute to development of a seamless multimodal transportation system?
- Complete or extend a critical system or modal link?

This project supports the regional vision of creating an extensive intermodal transportation route in the greater Portland Metro area. This vision is incrementally on its way to being realized, with this project continuing OPRD's efforts to build out the Estacada to Boring Trail, a segment of the Cazadero Trail. The project will connect the urban trailhead facilities at Boring and Barton Park developed through the efforts of Metro partners. The intersection of Baker's Ferry Road and Oregon 224 is a congested intersection, especially at peak traffic hours and during the summer months. This project will help assure a seamless multi-modal transportation system by creating a separated pathway system that connects with downtown Portland (some 26 miles away), while crossing Oregon 224 safely and creating a connection to an additional four mile separated path.

18. Mobility

Outcome sought: provide mobility for all transportation system users and a balanced, efficient, cost-effective and integrated multimodal transportation system.

For example, will the solution:

- Improve or better integrate passenger or freight facilities and connections, including multimodal connections, to expedite travel and provide travel options?
- Improve or provide a critical link in the transportation system or connection between modes for travelers or goods?

The two bridges and crossing of Oregon 224 will solve a critical link in the multi-modal transportation system, connecting the Estacada to Boring Trail through the Boring and Barton Park trailheads. The project will also address the safety and flow of traffic on Oregon 224 by separating and controlling the crossing. This critically needed connection will extend the trail and provide trail users with transportation, commuting and recreation options.

19. Accessibility

Outcome sought: ensure appropriate access to all areas with connectivity among modes and places and enable travelers and shippers to reach and use various modes with ease.

For example, will the solution:

- Improve connections within residential areas and/or to schools, services, transit stops, activity centers and open spaces, such as by filling a gap in bicycle, pedestrian, or transit facilities?
- Improve or expand access to employers, businesses, labor sources, goods or services?
- Plan for or contribute to expanding transportation choices for all Oregonians?

A bicycle/pedestrian gap along this alternative transportation route will be completed to assure improved connections not only on the trail, but to other urban amenities. This completed project will allow a complete, alternative mode transportation system from downtown Portland to the Clackamas River, a total distance of 30 miles. The project will connect several communities to businesses, services, other transit modes and open spaces on a safe, separated-use corridor. Trails like this one provide separated, green and safe experiences for riding a bike or walking, and for making connections to other green spaces that offer camping and recreational amenities, such as Barton or Milo McIver parks.

20. Economic Vitality

Outcome sought: expand and diversify Oregon's economy by efficiently transporting people, goods, services and information.

For example, will the solution:

- Support, preserve, or create long-term jobs and capital investment? Will it do so in an economically distressed area?
- Enhance opportunities for tourism and recreation?
- Plan for or contribute to linking workers to jobs?

This project will link urban residents to natural areas and recreation sites. It will also link rural residents with urban sites and transit options. The project will serve both transportation and recreation needs appealing to residents and tourists, with a projected 327,000 annual trips. Many of the users will access the trail coming from the Springwater Corridor, the cities of Portland, Damascus, Gresham, and neighboring communities. These users will spend money in the adjacent communities, enhancing the local economy by about \$1 million annually (Metro 2008). Parks, trails, and open space can have a positive effect on adjacent property values, with nationwide studies showing those values to range as high as 20 percent greater than properties not in proximity to such areas. In turn, local governments will realize proportionately higher tax revenues.

A 2008 review by Metro identified that the completed link would generate over \$3 million in savings in avoided car crashes, reduced traffic congestion, and prevented road damage. Local residents would also stand to save over \$5 million on transportation costs and \$2 million in healthcare costs.

21. Environmental Stewardship

Outcome sought: provide an environmentally responsible transportation system that does not compromise the ability of future generations to meet their needs and encourage conservation of natural resources.

For example, will the solution:

- Use design, materials or techniques that will more than meet minimum environmental requirements or mitigate an existing environmental problem in the area?
- Help meet air or water quality, energy or natural resource conservation, greenhouse gas reduction or similar goals?
- Plan for or contribute to the use of sustainable energy sources for transportation?

A 2008 review by Metro identified that this project could lead to local residents driving 20 million fewer miles over the long term preventing over 17 million pounds of carbon dioxide emissions over a 20 year period. The Estacada to Boring segment of the Cazadero Trail contributes to the overall environmental quality of the region by encouraging area residents to bicycle or walk instead of using personal occupancy vehicles. The Trail will serve to connect area residents to the natural environment and special places. The bridges will span the river using state of the art design standards, and construction activities will meet all environmental requirements required by law to protect water quality and natural resource conservation.

22. Land Use and Growth Management

Outcome sought: support existing land use plans and encourage development of compact communities and neighborhoods that integrate land uses to help make short trips, transit, walking and biking feasible.

For example, will the solution plan for or contribute to:

- Efficient development and use of land as designated by comprehensive or other land use plans?
- Community revitalization including downtowns, economic centers and main streets?
- Compact urban development and mixed land uses?

Clackamas County is one of the most populous and fastest growing areas of the state, and will accommodate a large percentage of the Portland-Metro region's future growth. This growth will bring an increased demand for the more cost effective bicycle and pedestrian facilities for both transportation and recreational use. A lane of roadway will accommodate five to ten times more pedestrian and bicycle traffic than driving, and the cost of bicycling and pedestrian infrastructure is just a small fraction of that of building highways. This infrastructure will offer efficient connections to transit, reducing the need for expensive and land-gobbling park-and-ride stations. This trail will provide transportation connection from Portland and Gresham to the Village of Boring and eventually Estacada.

Multi-use trails are a draw for businesses looking to locate or expand to new areas, who understand trail users usually spend money in small businesses, and do so more frequently than automobile drivers. This leads to a diverse mix of shopping, housing, restaurants, workplaces, and recreation developing near the trail, resulting in a dynamic community environment.

This project will enhance local emergency and fire access along the corridor. Currently, access is through one point, a residential driveway, to an abbreviated portion of the trail. The bridges will allow emergency personnel access, and assist fire personnel in implementing the newly adopted Clackamas Wildland Fire Plan.

23. Livability

Outcome sought: promote solutions that fit the community and physical setting, enable healthy communities and serve and respond to the scenic, aesthetic, historic, cultural and environmental resources.

For example, will the solution:

- Enhance or serve unique characteristics of the community?
- Use context sensitive principles in design and minimize impacts on the built and natural environment?
- Encourage a healthy lifestyle and enable active transportation by enhancing biking and walking networks and connections to community destinations or public transit stops or stations?
- Include elements that will make the facility or service more attractive, enjoyable, comfortable or convenient for potential users?

A key issue for getting citizens to engage in alternative modes of transportation is having a safe facility to use. This project opens up and addresses key safety concerns, providing a safe alternative transportation corridor that extends for over 30 miles. The Estacada to Boring State Trail provides physical activity and fitness opportunities by providing more miles of safe, attractive and desirable routes for users, including physically challenged individuals. Studies show that the presence of walking and cycling facilities in a community encourages people to incorporate those activities into their lives to a greater degree. This project will provide Metro-area residents just such an opportunity for exercise. Residents will be able to use the trail for travel to work or shopping, or for recreational purposes. In turn, the trail will promote a healthy lifestyle that contributes to community wellness and the emotional well-being of residents. The Trail also offers the opportunity to interpret the importance of this historic rail line, and to interpret and educate users about the natural resources and the local economy.

24. Safety and Security

Outcome sought: Investment improves the safety and security of the transportation system and takes into account the needs of potential users.

For example, will the solution:

- Improve safety by using designs or techniques that exceed minimum requirements for safety and are likely to reduce the frequency or severity of crashes?
- Help reduce crashes involving vulnerable road users such as bicyclists and pedestrians?
- Improve the ability to respond to an emergency and quickly recover use of the facility or service?

This project addresses the key safety concerns at the crossing of Oregon 224 at Baker's Ferry Road. A pedestrian was killed at this site in December 2011. The section of Oregon 224 from 232nd Street to Oregon 211 has been identified as having a volume-to-capacity ratio of over 0.80 and as a safety audit corridor. This project will create a crossing for alternative mode travelers, enhancing safety for both motorists, and bike and pedestrian users. With highway speeds of over 55 miles per hour, providing the crossing will reduce the potential for crashes involving those vulnerable users like that which occurred in December of 2011. The project will also provide the creek crossings needed to connect seven miles of separated travel corridor for bicyclists and pedestrians. These enhancements will result in higher use by residents and tourists. This increased use can result in enhanced security by deterring crime and illicit activities on and adjacent to this transportation corridor. Additionally, increased physical activity on the part of neighbors improves or creates social networks, promotes social cohesion, and facilitates positive relationships. The project will also enhance local emergency and fire access to the trail segment south of Boring for quick response to emergencies on and along the trail.

25. Equity

Outcome sought: promote a transportation system with multiple travel choices for potential users and fairly share benefits and burdens among Oregonians.

For example, will the solution:

- Benefit a large segment of the community?
- Benefit one or more transportation disadvantaged populations?
- Improve environmental justice or economic equity of the community or region?

The current update of the Clackamas County Transportation Plan has identified this area of Clackamas County as a transportation disadvantaged population. This project will add the amenities needed to help address this limitation by giving those who can not afford to drive or are under 16 years of age an alternative transportation facility.

26. Funding and Finance

Outcome sought: investment uses funding structures that will support a viable transportation system and are fair and fiscally responsible.

For example, will the solution:

- Have ongoing funding available for operations and maintenance?
- Support the continued use of prior investments or reduce the need for future investments?

OPRD has a dedicated budget and staff committed to ongoing annual maintenance and operation of the facility. The project supports previous investments made to create critical connections along the alternative transportation corridor, including the State's acquisition of this segment, planning efforts, and infrastructure development. The project will also support the anticipated future investments that will help achieve the goal of extending this corridor to Estacada.



Budget Information

27. Estimated Project Costs–REQUIRED

List estimated costs for the various activities listed below, as applicable to proposed project. Shaded fields are automatically calculated.

	Enter Values in this Column	Total Column
Project Administration	\$20,000	
Staff Costs (for Service/Educational Projects)		
Project development and PE	\$1,751,750	
Environmental Work		
Coordination and Outreach		
Leased Space		
Building purchase and/or Right of Way		
Capital Equipment		
Non-Construction Project Costs Total		\$1,771,750
Utility Relocation		
Construction	\$5,005,000	
Construction Project Costs Total		\$5,005,000
Total Eligible Project Cost		\$6,776,750
Non-Eligible Costs (other project non-transportation expenditures, e.g. un-reimbursable utilities)		

28. Project Participants and Contributions–REQUIRED

List expected project participants and their contributions in the table below. Begin with the amount contributed by the Sponsor and include contributions from Project Co-Sponsor and other participants, if applicable. Sponsor and participant contributions must add to at least 10.27% of Total Transportation Project Costs. This is the amount of matching funds typically required for most federal funding programs. The specific amount of matching funds required for the proposed project may be more or less than 10.27%, depending on its funding eligibility. Specific match requirements will be determined during application review.



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Participant Role	Participant Name	Project Funds Contribution	Percent of Transportation Project Total Cost
Sponsor	OPRD	\$700,000	10%
Co-Sponsor			0%
Participant	ODOT	\$0	0%
Participant			0%
Total		\$700,000	10%

If you have more co-sponsors and participants than lines in the table above, list their names and contribution amounts in the box below and enter the totals of Co-Sponsor and Participant contributions in the appropriate spaces in the table above.



Submittal Approval

29. Project Sponsor Signature Authority Information–REQUIRED

The Authorizing Authority identified below approved the submittal of this application on behalf of the Project Sponsor. Project sponsors other than the Oregon Department of Transportation will be required to sign an Intergovernmental Agreement (IGA) with ODOT prior to receiving any project funds. The IGA with the state will detail the requirements for the use and management of requested funds.

Authorizing Authority Name:

Authorizing Authority Title:

Electronic submittal was approved by the identified authorizing individual. No signature needed if checked.

Signature: Date:

30. Co-Sponsor Signature Authority Information

The signature below demonstrates support of this application on behalf of the Co-Sponsor:

Authorizing Authority Name:

Authorizing Authority Title:

Signature: Date:

If you have more than one Co-Sponsor, list further Co-Sponsors' submittal authority names and titles in the box below and ask those named to provide their signatures and the date signed by their names.

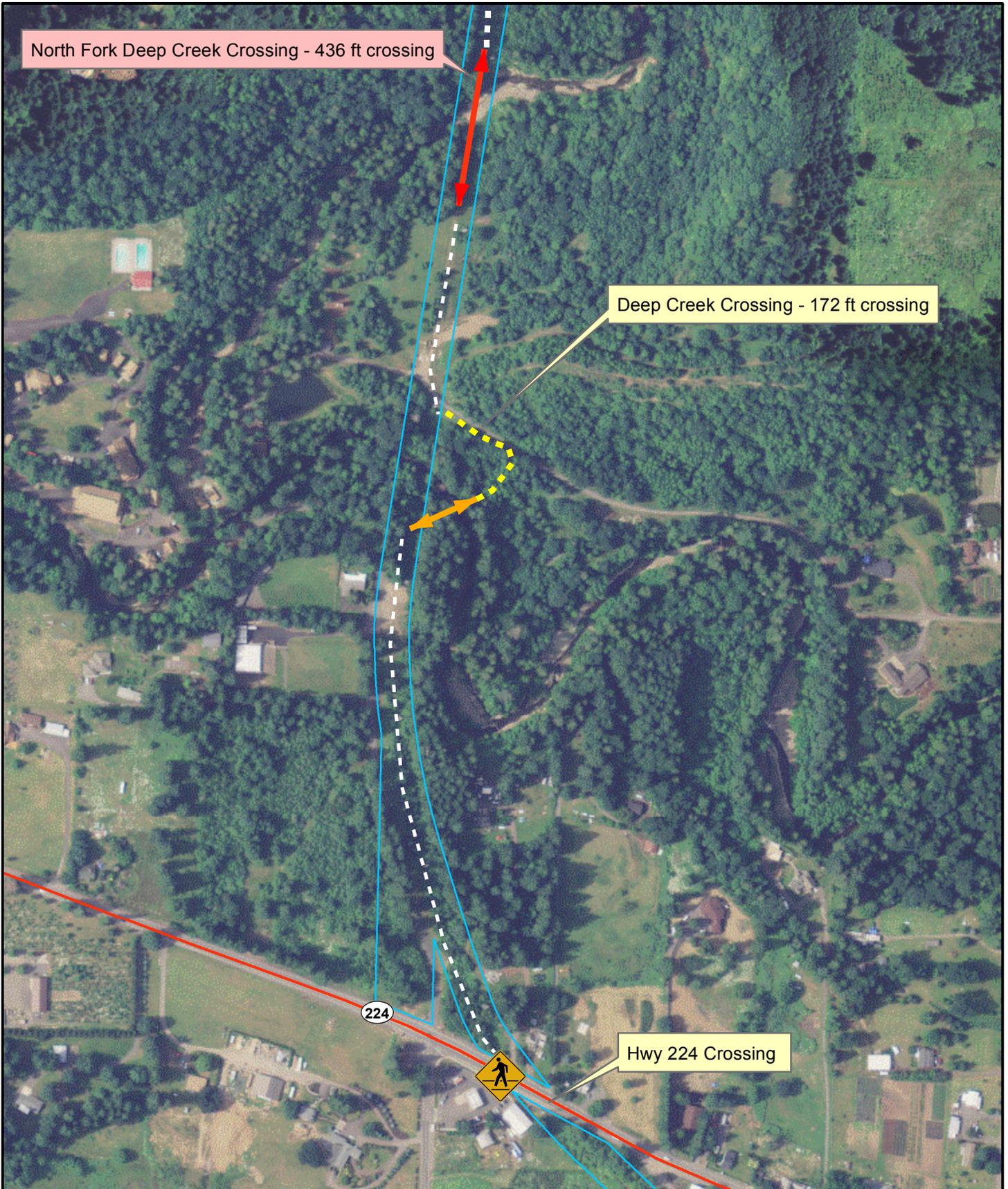
Electronic submittal was approved by the identified authorizing individuals. No signatures needed if checked.

Cazadero Trail - Deep Creek Section

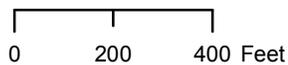
Oregon Parks & Recreation Dept.
725 Summer St. NE, Suite C
Salem OR, 97301



Nature
HISTORY
Discovery



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NMOB-2745 6/4/2012

E:11/8/2012

P:never

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**Existing Conditions –
North Fork Deep
Creek**



**Existing Conditions –
Deep Creek**



**Existing Conditions –
Hwy 224 Crossing**

