



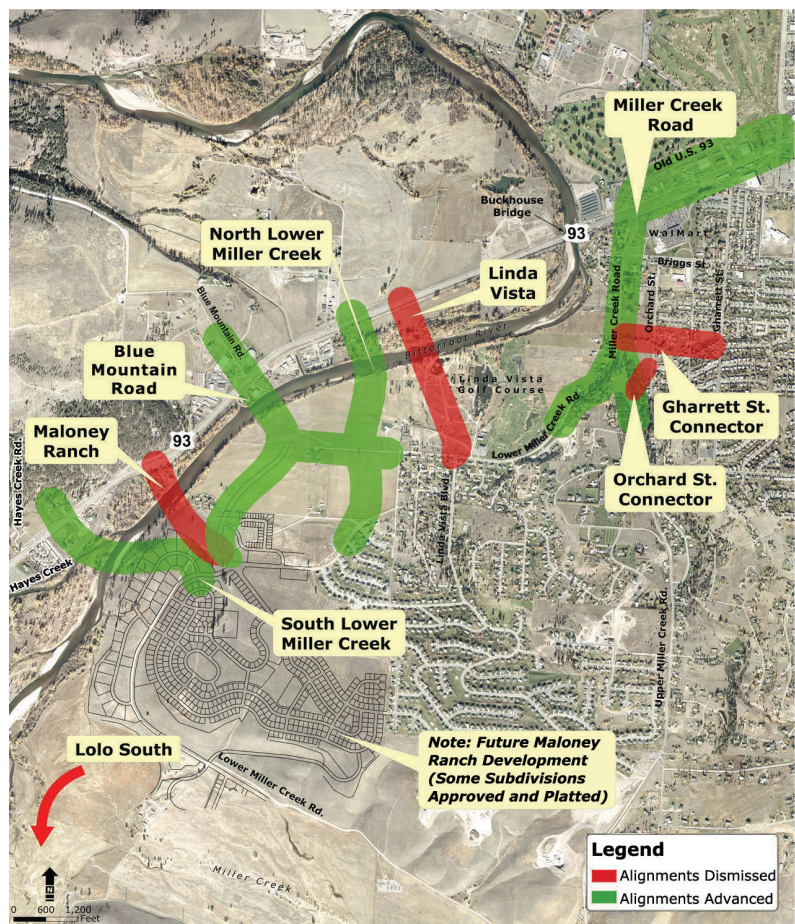
access to and from the project area is *at capacity*, and traffic volumes are expected to increase over the next 20 years with expected full build-out of the Miller Creek area. The following summarizes the needs for a safe and improved access between the Miller Creek area and US 93.

- Address high congestion levels at the Miller Creek Road/US 93 intersection.
- Address roadway deficiency and safety concerns at the Upper Miller Creek Road and Lower Miller Creek Road "Y" intersection, at the Miller Creek Road and US 93 intersection, and on US 93.
- Provide pedestrian and bicycle facilities and public transportation access.
- Improve access for emergency service providers.

## ES.2 Alternatives

The alternatives presented in this FEIS were developed through an extensive public and agency coordination process combined with thorough environmental and engineering analysis. Nine corridors were identified as potential alignments to meet purpose and need within the project area (**Figure ES-1**). These alignment corridors were evaluated for fatal flaws, refined, and combined with US 93 connection options that then became the range of alternatives considered. These alternatives were evaluated for feasibility and reasonableness, after which five alternatives were dropped from further consideration. The outcome of this process was four build alternatives that best could meet the purpose and need by providing safe and improved access between the Miller Creek area and US 93. **Miller Creek Road At-Grade Intersection - Alternative 5A has been identified as the Preferred Alternative.** The four build alternatives and the No-Action Alternative are described below.

Figure ES-1  
Initial Alignment Corridors



Three build alternatives were developed that provide a second access to the Miller Creek area from US 93 and require a new structure over the Bitterroot River. The bridge alternatives: North Lower Miller Creek Grade-Separated Intersection (Alternative 2B), Blue Mountain Road Grade-Separated Intersection (Alternative 3B), and South Lower Miller Creek Interchange (Alternative 4C) all include the Limited Improvements to Miller Creek Road (see **Figure 2-6, page 2-20**). The Miller Creek Road At-Grade Intersection (Alternative 5A) would upgrade the existing access along Miller Creek Road. Miller Creek Road would be widened to four lanes with additional turn lanes at Briggs and US 93.



corridor. This alternative is fully evaluated in the FEIS and is used as a “baseline” against which the build alternatives are compared. The No-Action Alternative is assumed to include locally funded widening improvements to Miller Creek Road.

### ES.3 Summary of Impacts

The existing social, economic, environmental, and transportation conditions within the project area are described in Chapter 3.0 of this FEIS. Chapter 4.0 presents a thorough discussion of potential consequences, both adverse and beneficial, that could reasonably be expected to result from each of the alternatives considered. Chapter 4.0 also discusses potential mitigation measures to offset impacts that could occur with the No-Action Alternative and four build alternatives.

<b>Alternatives Carried Forward for Analysis in this FEIS</b>
Alternative 1: No-Action Alternative
Alternative 2B: North Lower Miller Creek Grade-Separated Intersection
Alternative 3B: Blue Mountain Road Grade-Separated Intersection
Alternative 4C: South Lower Miller Creek Interchange
Alternative 5A: Miller Creek Road At-Grade Intersection (Preferred Alternative)

The major environmental impacts discussed in this document are summarized in **Table ES-2, page ES-13**.

### ES.4 Mitigation

Mitigation measures in this document are generally described for impacts that could result from the build alternatives under consideration in **Table ES-2, page ES-13**.

### ES.5 Identification of Preferred Alternative

#### **Comparison of Alternatives**

This section and **Table ES-2, page ES-13** describe the major impacts associated with all of the alternatives evaluated in this FEIS. While Alternative 5A has been identified as the Preferred Alternative because it meets the purpose and need for the project, was found to be acceptable when evaluated against criteria established for the project (see **Table 2-2, page 2-13**), and is supported by the assessment conclusions documented in Chapter 4, other alternatives have strengths that are worthy of mention. The bridge alternatives (2B, 3B, and 4C) provide the additional emergency evacuation benefits associated with a second access.

Alternative 5A provides the best operational performance for US 93 based upon future traffic projections, costs the least, and has the least impact to the human and natural environment. Moreover, Alternative 5A would improve traffic operations on Miller Creek Road and the US 93/ Miller Creek Road intersection over the No-Action Alternative. In addition, the US Army Corps of Engineers (USACE) regulations require selecting the Least Environmentally Damaging Practicable Alternative for issuance of a 404 Permit, which was Alternative 5A (see Section 4.10.9, page 4-101).



Based upon the projected increase in traffic on US 93, traffic modeling shows the majority of traffic exiting the Miller Creek area via a second bridge (Alternatives 2B, 3B, and 4C) during the AM peak period would be forced to merge into a long queue of traffic extending to, or past Blue Mountain Road. Furthermore, most drivers would still have to travel through the Miller Creek intersection.

Alternative 5A is expected to function at an acceptable LOS during typical weekday peak travel periods through the year 2025. However, a second connection to the Miller Creek area and other system improvements (including measures to reduce travel demand and/or increase capacity on the US 93 corridor) may be warranted if future traffic volumes on US 93 and Miller Creek Road exceed the year 2025 forecasts. If needed, the second connection and other system improvements will be complimentary to Alternative 5A.

**Project Purpose:** The purpose of the Miller Creek Road project is to provide for safe and improved access between US 93 and the Miller Creek area. The Miller Creek area is situated in one of the fastest growing areas in Missoula County. Population growth is expected to continue into the future, and current development plans would result in approximately 3,000 dwelling units by 2025, thereby affecting the capacity, mobility, and safety of project area roads, including US 93 and Miller Creek Road. The existing primary roadway access to and from the project area is at capacity and traffic volumes are expected to increase over the next 20 years with expected full build-out of the Miller Creek area.

**Table ES-1** compares all the build alternatives to the project needs and summarizes the reasons and findings for Alternative 5A as best meeting the project needs.

In addition, the social, economic, transportation and environmental assessments documented in Chapter 4 support identifying Alternative 5A as the Preferred Alternative.

- All of the build alternatives would require acquisition of private property for right-of-way purposes. Alternative 5A would require acquisition of the least amount of private property with 7.9 acres, and would not require any commercial relocations. Alternative 2B would require 24.2 acres, Alternative 3B would require 35.8 acres, and Alternative 4C would require 66.7 acres of private property. In addition, Alternatives 3B would require 4 commercial relocations and Alternative 4C would require 3 commercial relocations; both of these alternatives would also require more access closures.

**Table ES-1  
Comparison of Project Needs and the Build Alternatives**

Project Needs		Build Alternatives Comparison
1.	Address high congestion levels on Miller Creek Road and at the Miller Creek Road/US 93 intersection.	Compared to the No-Action Alternative, all alternatives have comparable intersection operations at US 93/Miller Creek Road. Alternative 5A addresses the high congestion issue with fewer impacts to the natural area than other build alternatives. Additionally, Alternative 5A, as compared to other build alternatives, will result in higher VMT on collector/local roadways within the Miller Creek area and a reduction in VMT along US 93 (i.e., less congestion compared to other build alternatives) east/south of the Miller Creek Road/US 93/Old US 93 intersection (see <b>Table 4-7, page 4-23</b> ).

**Table ES-1  
Comparison of Project Needs and the Build Alternatives**

Project Needs	Build Alternatives Comparison
2. Address roadway deficiency and safety concerns at the Upper Miller Creek Road and Lower Miller Creek Road "Y" intersection, at the Miller Creek Road and US 93 intersection, and on US 93.	All of the alternatives would enhance safety at the north "Y" intersection of Upper Miller Creek Road and Lower Miller Creek Road with the addition of a traffic signal and reconfiguration of the intersection. Compared to Alternatives 2B and 4C, Alternative 5A would not include a new connection to US 93 and thus would not introduce interruption to the traffic flow along US 93. Minimizing interruptions to traffic flow is especially important along congested roadways because interruptions slow down traffic when merging is required or a signal is present and thus increases the crash potential in the area of the interruption. Compared to the other build alternatives, Alternative 5A would have the least impact to traffic operations on US 93.
3. Provide pedestrian and bicycle facilities and public transportation access.	All of the alternatives would provide pedestrian and bicycle facilities along Miller Creek Road and would remove existing roadway deficiencies (i.e., narrow width and lack of pedestrian facilities) that could discourage future expansion of transit service. Alternative 5A would not provide a second connection to US 93 and would potentially limit viable circulation route options for public transit; however, there is no current transit service to the area.
4. Improve access for emergency service providers	Compared to the No-Action Alternative, all of the build alternatives would result in improved traffic conditions and reduced traffic travel times, thus improving emergency response times. Alternative 5A would not provide a second connection to US 93 for emergency service providers, whereas the other build alternatives would provide a second access via the new bridge. However, the new fire station in the Miller Creek area (see <b>Figure 3-4, page 3-14</b> ) completed in March 2007 and traffic lanes being added to Miller Creek Road will improve emergency response times and help during emergency evacuation.

- Alternative 5A would convert the fewest amount of residential and commercial land to a transportation use with 7.9 acres. Alternatives 2B, 3B, and 4C would result in the direct conversion of 24.2 acres, 35.8 acres, and 66.7 acres, respectively, of residential, commercial, agricultural, open space, and undeveloped land to a transportation use.
- Alternative 5A and 4C would not require conversion of farmlands. Alternatives 2B and 3B would directly impact 7.6 and 4.8 acres, respectively, of Farmland of Prime, Statewide, and/or Local Importance by converting land to a non-agricultural use.
- Alternatives 3B and 5A are most effective at improving overall operations on US 93 and key intersections. Alternative 3B would enhance traffic flow along the rural segment of US 93 south/west of Buckhouse Bridge to greatest extent, and Alternative 5A would most effectively improve traffic flow and operations through the US 93 intersections at Miller Creek Road/Old US 93 and Brooks/Reserve Streets. Alternative 5A adequately accommodates and enhances mobility and safety for multiple transportation modes through 2025.
- Alternatives 2B, 3B and 5A would impact the fewest acres of wetlands with 0.2 acre of impact each. Alternative 4C would impact 0.3 acre of wetlands. However, Alternatives 2B, 3B, and 4C would also impact minor amounts of riparian vegetation along the Bitterroot River associated with bridge construction.

















This table provides a summary of impacts and mitigation for each resource by alternative to distinguish the alternatives from each other. Impacts shown for the No-Action Alternative include impacts associated with planned locally funded improvements to Miller Creek Road only for comparison purposes. These improvements are not a part of this federally funded project. Impacts shown for Alternatives 2B, 3B, and 4C include the impacts for the Bitterroot River bridge crossing and new roadway, the intersection/interchange with US 93, improvements on Old US 93, and the Miller Creek Road Limited Improvements. Impacts shown for Alternative 5A include impacts on Old US 93 and Miller Creek Road. For a complete description of impacts and mitigation for each resource, please refer to Chapter 4.0 of this document.

**Table ES-2  
Summary of Impacts and Mitigation**

Alternative 1 No-Action	Alternative 2B North Lower Miller Creek Grade-Separated Intersection	Alternative 3B Blue Mountain Road Grade-Separated Intersection	Alternative 4C South Lower Miller Creek Interchange	Alternative 5A Miller Creek Road At-Grade Intersection (Preferred Alternative)
<b>Land Use</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>No change to population growth trends or development patterns.</li> <li>No changes to existing land uses and zoning designations.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Direct conversion of 24.2 acres of land from residential, commercial, agricultural, open space, and undeveloped use to transportation use.</li> <li>Promotes new development in undeveloped areas.</li> <li>Could accelerate planned development.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Same as Alt. 2B, except 3B would impact 35.8 acres and have greater impact to land use character.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Same as Alt. 2B, except 4C would impact 66.7 acres and have greatest impact to land use character at Hayes Creek Road area.</li> <li>Would bisect a Maloney Ranch conservation easement located along east bank of Bitterroot River.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Converts 7.9 acres of residential and commercial land to transportation use.</li> </ul>
<p><b>Mitigation:</b></p> <ul style="list-style-type: none"> <li>No mitigation is necessary.</li> </ul>				
<b>Farmland/Agriculture</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>None</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>7.6 acres of Farmland of Local Importance.</li> <li>Bisects 100-acre agricultural/ranch property.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>4.8 acres of Farmland of Local Importance.</li> <li>Acquisition of approximately 8 acres of agricultural/ranch property.</li> <li>Bisects 2 agricultural/ranch properties.</li> <li>Relocation of irrigation ditch near Bitterroot River where proposed bridge would touch down.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>None.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>None.</li> </ul>
<p><b>Mitigation:</b></p> <ul style="list-style-type: none"> <li>No mitigation is required.</li> </ul>				

**Table ES-2  
Summary of Impacts and Mitigation**

Alternative 1 No-Action	Alternative 2B North Lower Miller Creek Grade-Separated Intersection	Alternative 3B Blue Mountain Road Grade-Separated Intersection	Alternative 4C South Lower Miller Creek Interchange	Alternative 5A Miller Creek Road At-Grade Intersection (Preferred Alternative)
<b>Social and Environmental Justice</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>No change to projected population increases.</li> <li>One residential relocation.</li> <li>No disproportionate impacts to minority or low-income Environmental Justice populations.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Improved capacity on Miller Creek Road due to Miller Creek Limited Improvements.</li> <li>No disproportionate impacts to minority or low-income Environmental Justice populations.</li> <li>Second access would improve emergency access.</li> <li>One residential relocation.</li> <li>Signal at Briggs Street and Miller Creek Road could encourage cut-through traffic. However, capacity improvements on Miller Creek Road would reduce the likelihood for cut-through traffic.</li> </ul> <p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>No mitigation is necessary.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Similar to Alt. 2B, except has more residential right-of-way and access impacts at US 93/Blue Mountain Road intersection.</li> <li>No disproportionate impacts to minority or low-income Environmental Justice populations.</li> <li>Removal of signal at Blue Mountain Road makes access to and from Hayes Creek Rd. neighborhoods more challenging.</li> <li>Second access would improve emergency access.</li> <li>Two residential relocations.</li> <li>Signal at Briggs Street and Miller Creek Road could encourage cut-through traffic. However, capacity improvements on Miller Creek Road would reduce the likelihood for cut-through traffic.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Similar to Alt. 2B, except Alt. 4C has most social impacts of build alternatives (12 residential relocations, including one trailer home).</li> <li>No disproportionate impacts to minority or low-income Environmental Justice populations.</li> <li>Second access would improve emergency access.</li> <li>Impacts to trailer park have been minimized.</li> <li>Signal at Briggs Street and Miller Creek Road could encourage cut-through traffic. However, capacity improvements on Miller Creek Road would reduce the likelihood for cut-through traffic.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Fewer overall right-of-way and access impacts than other build alternatives.</li> <li>No disproportionate impacts to minority or low-income Environmental Justice populations.</li> <li>One residential relocation.</li> <li>Emergency access capacity out of Miller Creek is improved over the No-Action Alternative.</li> <li>Signal at Briggs Street and Miller Creek Road could encourage cut-through traffic. However, capacity improvements on Miller Creek Road would reduce the likelihood for cut-through traffic.</li> </ul>

**Table ES-2  
Summary of Impacts and Mitigation**

Alternative 1 No-Action	Alternative 2B North Lower Miller Creek Grade-Separated Intersection	Alternative 3B Blue Mountain Road Grade-Separated Intersection	Alternative 4C South Lower Miller Creek Interchange	Alternative 5A Miller Creek Road At-Grade Intersection (Preferred Alternative)
<b>Transportation</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>• Congestion would continue to worsen with reasonably foreseeable build-out of Miller Creek area.</li> <li>• Potential for vehicles to get trapped on tracks would increase as traffic volume and congestion increase.</li> <li>• Minimal to no improvement to emergency access.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>• Most evenly distributes traffic between Miller Creek Road and second access.</li> <li>• Reduces traffic volume along Miller Creek Road to greatest extent.</li> <li>• Worst impact to US 93 traffic flow.</li> <li>• Worst operations on US 93.</li> <li>• Adds signal and potential conflict locations at new intersection on US 93.</li> <li>• Reduces travel across railroad track.</li> <li>• Enhances potential transit and ride-sharing route options and circulation.</li> <li>• Provides additional grade-separated crossing of US 93.</li> <li>• Traffic signal would reduce potential vehicle/train conflicts at Miller Creek Rd./US 93.</li> <li>• Least impacts to rail service. No new grade crossing.</li> <li>• Second access would improve emergency access.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>• Least impact to US 93 traffic flow in rural section south of Buckhouse Bridge.</li> <li>• Best overall operations on major roadways and at major intersections in Miller Creek area.</li> <li>• Introduces traffic to high-speed section of US 93.</li> <li>• Eliminates signal, secondary approaches, and provides grade-separated access to Blue Mountain Road.</li> <li>• Adds at-grade railroad crossings.</li> <li>• May provide best potential transit route circulation in Miller Creek area.</li> <li>• Traffic signal would reduce potential vehicle/train conflicts at Miller Creek Rd./US 93.</li> <li>• New modified at-grade MRL track crossing. Potential for vehicle/train conflicts greater due to higher traffic volumes at new crossing.</li> <li>• Second access would improve emergency access.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>• Greatest travel shift from local system to US 93.</li> <li>• Least shift of traffic from Miller Creek Road to second access.</li> <li>• Worst roadway and intersection operations of build alternatives.</li> <li>• Introduces traffic to high-speed section of US 93.</li> <li>• Provides grade-separated access to Hayes Creek Road from Miller Creek area.</li> <li>• Second access likely outside Missoula Urban Transportation District (MUTD).</li> <li>• Provides best access to Hayes Creek Road for ride-sharing.</li> <li>• Provides best access between Miller Creek area and Hayes Creek Road.</li> <li>• High-speed interchange not desirable for nonmotorized travel.</li> <li>• Traffic signal would reduce potential vehicle/train conflicts at Miller Creek Rd./US 93.</li> <li>• New access road to US 93 would cross over MRL track, avoiding an at-grade crossing.</li> <li>• Second access would improve emergency access.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>• Best overall traffic performance.</li> <li>• Maintains current travel patterns in area.</li> <li>• Least impact to US 93 traffic volumes and overall flow.</li> <li>• Best operations at US 93/Miller Creek Road intersection.</li> <li>• Highest volumes at US 93/Miller Creek Road intersection.</li> <li>• Greatest number of travel lanes on Miller Creek Road crossing railroad track.</li> <li>• Route options for future bus access to/from the Miller Creek area would be limited to Miller Creek Road.</li> <li>• Greatest width and number of lanes to cross on Miller Creek Road.</li> <li>• Traffic signal would reduce potential vehicle/train conflicts at Miller Creek Rd./US 93.</li> <li>• Increase in traffic and number of lanes on Miller Creek Road would result in increased risk of vehicle/train conflicts at MRL crossing on Miller Creek Rd.</li> <li>• Miller Creek Road improvements provide additional lane on Miller Creek for improved emergency access.</li> </ul>
<p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>• Measures to minimize adverse transportation impacts are incorporated into conceptual design of each alternative. No additional transportation mitigation measures have been identified.</li> </ul>				
<b>Right-of-Way and Utilities</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>• No right-of-way acquisitions, easements, or construction permits for federal action.</li> <li>• Right-of-way and relocations would occur as part of locally funded improvements along Miller Creek Road (3.7 acres and one residential relocation).</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>• 1 residential relocation</li> <li>• 1 undeveloped acquisition.</li> <li>• 24.2 acres required.</li> <li>• Railroad easement (2 crossings).</li> <li>• Construction easements may be required.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>• 4 commercial relocations.</li> <li>• 2 residential relocations.</li> <li>• 35.8 acres required.</li> <li>• Railroad easement (2 crossings).</li> <li>• Construction easements may be required.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>• 3 commercial relocations.</li> <li>• 12 residential relocations.</li> <li>• 66.7 acres required.</li> <li>• Railroad easement (2 crossings).</li> <li>• Construction easements may be required.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>• 1 residential relocation.</li> <li>• 7.9 acres required.</li> <li>• Railroad easement (one crossing).</li> <li>• Construction easements may be required.</li> </ul>
<p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>• Right-of-way acquisition will be done in compliance with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.</li> </ul>				

**Table ES-2  
Summary of Impacts and Mitigation**

Alternative 1 No-Action	Alternative 2B North Lower Miller Creek Grade-Separated Intersection	Alternative 3B Blue Mountain Road Grade-Separated Intersection	Alternative 4C South Lower Miller Creek Interchange	Alternative 5A Miller Creek Road At-Grade Intersection (Preferred Alternative)
<b>Economic</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>No impact to economic growth trends or businesses in or adjacent to the project area.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>All parking that is currently occurring on the gravel shoulder within the Old US 93 right-of-way would be eliminated.</li> <li>The US 93/Yuhas Ranch Lane access would be relocated.</li> <li>No commercial relocations.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Same as Alt. 2B, plus business accesses US 93 northwest of Blue Mountain Road intersection would be consolidated.</li> <li>Changes in access to properties south of US 93 could result in temporary loss of business.</li> <li>Removal of signal at Blue Mountain Road may impact access to businesses along US 93, due to loss of gap in traffic that results from signal.</li> <li>4 commercial relocations.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Same as Alt. 2B, plus requires some out-of-direction travel for Miller Creek residents traveling to Missoula.</li> <li>3 commercial relocations in Hayes Creek Road area.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>No commercial relocations.</li> <li>All parking that is currently occurring on the gravel shoulder within the Old US 93 right-of-way would be eliminated.</li> </ul>
<p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>Mitigation for permanent and temporary construction-related economic impacts include maintaining accurate and up-to-date information for businesses and the public.</li> <li>Business accesses would remain open to the maximum extent possible and closures kept to a minimum.</li> <li>Signage indicating changes in access to businesses will be installed when needed and as determined practicable.</li> </ul>				
<b>Air Quality</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Same or higher levels of localized carbon monoxide (CO) concentrations compared to build alternatives.</li> <li>Increased congestion can lead to higher localized pollutant concentrations, particularly in winter months.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Air quality impacts from increased CO concentrations are not anticipated under the build alternatives. Further, signalized intersection operation improves in almost all cases between the No-Action Alternative and the build alternatives.</li> <li>There would be a small reduction in regional and project-area vehicle miles traveled (VMT).</li> <li>There is generally little difference between the alternatives related to air quality. The degree to which differences in VMT and intersection operation vary under each alternative is relatively minor, and is unlikely to have much effect on pollutant concentrations. Air quality is therefore unlikely to be a significant factor in selecting a build alternative.</li> </ul>			
<p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>No mitigation is necessary.</li> </ul>				
<b>Noise</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>28 residential noise-related impacts.</li> <li>1 church would receive noise impacts.</li> <li>3 commercial properties receive noise impacts.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>14 residences impacted.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>14 residences impacted.</li> <li>3 businesses impacted.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>20 residences impacted.</li> <li>1 church impacted.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>19 residences impacted.</li> <li>1 church impacted.</li> </ul>
<p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>No mitigation is recommended.</li> </ul>				



**Table ES-2  
Summary of Impacts and Mitigation**

Alternative 1 No-Action	Alternative 2B North Lower Miller Creek Grade-Separated Intersection	Alternative 3B Blue Mountain Road Grade-Separated Intersection	Alternative 4C South Lower Miller Creek Interchange	Alternative 5A Miller Creek Road At-Grade Intersection (Preferred Alternative)
<b>Water Resources and Water Quality</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>No impacts to water resources and water quality.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Requires 2 piers in Bitterroot River.</li> <li>Increase in impervious surface area is 13.5 acres.</li> <li>Additional surface water runoff is 15 acre feet.</li> <li>Improvements on Old US 93 include storm sewer connection along both sides.</li> </ul> <p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>Incorporation of BMPs and SWPPP.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Requires 2 piers in Bitterroot River.</li> <li>Increase in impervious surface is 19.0 acres.</li> <li>Additional surface water runoff is 21 acre feet.</li> <li>Improvements on Old US 93 include storm sewer connection along south side.</li> <li>No impacts to Big Flat Canal.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Improvements on Old US 93 include storm sewer connection along south side.</li> <li>Requires 3 piers in Bitterroot River.</li> <li>Increase in impervious surface is 14.5 acres.</li> <li>Additional surface water runoff is 14 acre feet.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>No impacts to Bitterroot River.</li> <li>Increase in impervious surface is 6.0 acres.</li> <li>Additional surface water runoff is 7 acre feet.</li> </ul>
<b>Wetlands</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Could directly impact &lt;0.2 acre of wetlands as part of locally funded project.</li> <li>No wetland impacts as part of federal action.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Directly impacts 0.2 acre of non-jurisdictional Wetland #13.</li> <li>Requires 2,700 cu. yds. of dredge/fill material in Waters of the United States.</li> </ul> <p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>No compensatory mitigation is proposed.</li> <li>Schedule construction when sites are dry to minimize sedimentation during construction.</li> <li>Use acceptable erosion control devices and install best management practices (BMPs) at edge of wetlands and Waters of the US prior to construction.</li> <li>Prepare Stormwater Pollution Prevention Plan (SWPPP).</li> <li>Temporarily disturbed wetland areas would be revegetated with desirable species at earliest practicable date following disturbance.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Directly impacts 0.2 acre of non-jurisdictional wetland.</li> <li>Requires 2,700 cu. yds. of dredge/fill material in Waters of the United States.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Directly impacts 0.3 acre of wetland (of which 0.1 acre is a jurisdictional wetland).</li> <li>Requires 4,050 cu. yds. of dredge/fill material in Waters of the United States.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Directly impacts 0.2 acre of non-jurisdictional wetland.</li> </ul>

**Table ES-2  
Summary of Impacts and Mitigation**

Alternative 1 No-Action	Alternative 2B North Lower Miller Creek Grade-Separated Intersection	Alternative 3B Blue Mountain Road Grade-Separated Intersection	Alternative 4C South Lower Miller Creek Interchange	Alternative 5A Miller Creek Road At-Grade Intersection (Preferred Alternative)
<b>Vegetation, Wildlife and Aquatics</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Wildlife mortality rates could increase as traffic volumes increase on US 93.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>0.1 acre riparian impacts.</li> <li>15 acres grassland.</li> <li>Terrestrial wildlife: riparian zone along Bitterroot River is winter range for deer and other wildlife.</li> <li>Wildlife crossing would be accommodated under bridge along Bitterroot River.</li> <li>Aquatic impacts: 2 bridge piers in river below the ordinary high water mark (OHWM).</li> </ul> <p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>Stormwater treatment and use of BMPs.</li> <li>In-water permits</li> <li>Re-establishment of riparian habitat.</li> </ul> <p>Enhancements Identified for the Bridge Alternatives:</p> <ul style="list-style-type: none"> <li>Incorporation of bat-friendly habitat features.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>0.2 acre riparian impacts.</li> <li>19 acres grassland.</li> <li>Terrestrial wildlife: wildlife mortality along US 93 could increase with Alt. 3B.</li> <li>Wildlife crossing would be accommodated under bridge along Bitterroot River.</li> <li>Aquatic impacts: 2 bridge piers in river below OHWM.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>0.3 acre riparian impacts.</li> <li>28 acres of grassland.</li> <li>Terrestrial wildlife: same as Alt. 3B.</li> <li>Wildlife crossing would be accommodated under bridge along Bitterroot River.</li> <li>Aquatic impacts: 3 bridge piers in river below OHWM.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>No riparian or grassland impacts.</li> <li>Minor terrestrial wildlife impacts.</li> <li>No impacts to Bitterroot River.</li> </ul>
<b>Floodplains</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>0.5 acre of fill within floodplain would be associated with locally funded project along Miller Creek Road.</li> <li>No impacts from federal action.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>3.1 acres of fill within floodplain.</li> <li>8 bridge piers in floodway.</li> </ul> <p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>Design will seek to minimize impacts to floodplains in compliance with Federal Highway Administration (FHWA), Federal Emergency Management Agency (FEMA), and Missoula County requirements.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>4.1 acres of fill within floodplain.</li> <li>4 bridge piers in floodway.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>0.7 acre of fill within floodplain.</li> <li>4 bridge piers in floodway.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>0.6 acre of fill within floodplain.</li> </ul>
<b>Threatened, Endangered or Sensitive Species</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>No impacts to bull trout or bald eagle.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Bull trout: may affect, likely to adversely affect.</li> <li>Bald eagle habitat: may affect, not likely to adversely affect.</li> </ul> <p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>Bull trout: conservation measures include in-water work timing restrictions; implement SWPPP; install erosion control devices and BMPs; develop revegetation and erosion control plans; revegetate disturbed wetland areas with desirable species; contain wet concrete and wash water; protect inlets/catchments from fresh concrete, tackifier, paving, or paint striping; clean all equipment prior to use below OHWM; fuel and maintain equipment 100 feet away from river, prevent ground disturbance outside project limits, grub vegetation only from areas undergoing permanent alteration.</li> <li>Bald eagle: conservation measures include raptor-proofing relocated overhead power lines and locate construction-related activities in compliance with all laws.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Bull trout: no effect.</li> <li>Bald eagle habitat: may affect, not likely to adversely affect.</li> </ul> <p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>Bald eagle: Same as Alts. 2B, 3B, and 4C.</li> </ul>		

**Table ES-2  
Summary of Impacts and Mitigation**

Alternative 1 No-Action	Alternative 2B North Lower Miller Creek Grade-Separated Intersection	Alternative 3B Blue Mountain Road Grade-Separated Intersection	Alternative 4C South Lower Miller Creek Interchange	Alternative 5A Miller Creek Road At-Grade Intersection (Preferred Alternative)
<b>Cultural Resources</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>2 National Register of Historic Places (NRHP)-eligible properties would be affected by locally funded project along Miller Creek Road.</li> <li>No impacts from federal action.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>2 NRHP-eligible properties impacted.</li> <li>Section 4(f) analysis determined "de minimis" impacts.</li> </ul> <p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>No mitigation is necessary.</li> <li>In the event that previously unrecorded cultural material is found during construction, activities would be halted and the project archaeologist would be contacted to assess the find.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>2 NRHP-eligible properties impacted.</li> <li>Section 4(f) analysis determined "de minimis" impacts.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>3 NRHP-eligible properties impacted.</li> <li>Section 4(f) analysis determined "de minimis" impacts.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>2 NRHP-eligible properties impacted.</li> <li>Section 4(f) analysis determined "de minimis" impacts.</li> </ul>
<b>Hazardous Waste</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>2 hazardous waste sites would be affected by locally funded project.</li> <li>No impacts from federal action.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>5 hazardous waste sites impacted.</li> </ul> <p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>Phase II environmental investigation would be conducted prior to construction.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>9 hazardous waste sites impacted.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>7 hazardous waste sites impacted.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>5 hazardous waste sites impacted.</li> </ul>
<b>Visual</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>No impacts.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Widening Old US 93: impacts Missoula Country Club Golf Course hedge; widened pavement along Old US 93 and Brooks/Reserve Street; a retaining wall along Larchmont Golf Course property and Missoula Country Club.</li> <li>New bridge structure over Bitterroot River may block views and cause shading beneath it.</li> <li>Limited Improvements along Miller Creek Road would cause additional loss of vegetation and wider pavement; includes sidewalk and bike lanes with boulevard treatment.</li> </ul> <p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>Where new right-of-way or a construction easement is needed on Missoula Country Club property and the fence and/or hedge is impacted, replacement fencing and/or landscaping would be installed in coordination with the property owner.</li> <li>Provide architectural interest or color in retaining wall design, bridges, and other structural features to blend with natural surroundings.</li> <li>Revegetate disturbed areas with desirable species as soon as practicable consistent with adjacent landscape features.</li> </ul>			<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Widening Old US 93: impacts Missoula Country Club Golf Course hedge; widened pavement along Old US 93 and Brooks/Reserve Street; a retaining wall along Larchmont Golf Course and Missoula Country Club property.</li> <li>Miller Creek Road widening would cause additional loss of vegetation and wider pavement; includes sidewalk and bike lanes with boulevard treatment.</li> </ul>

**Table ES-2  
Summary of Impacts and Mitigation**

Alternative 1 No-Action	Alternative 2B North Lower Miller Creek Grade-Separated Intersection	Alternative 3B Blue Mountain Road Grade-Separated Intersection	Alternative 4C South Lower Miller Creek Interchange	Alternative 5A Miller Creek Road At-Grade Intersection (Preferred Alternative)
<b>Parks and Recreation</b>				
<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>No impacts to public parks and public recreation facilities.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>No impacts to Lolo National Forest or Blue Mountain Recreation Area.</li> <li>Indirect effects to future Maloney Ranch Park.</li> <li>Old US 93 impacts: impacts Missoula Country Club (private) entrance and landscaping; no impacts to Larchmont Golf Course.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>No impacts to Lolo National Forest or Blue Mountain Recreation Area.</li> <li>Minor indirect effects to future Maloney Ranch Park.</li> <li>Indirect effects to Buckhouse Bridge Boat Camp and Montana Fish, Wildlife &amp; Parks (MFWP) Parcel 4.</li> <li>Old US 93 impacts: same as 2B.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>No impacts to Lolo National Forest or Blue Mountain Recreation Area.</li> <li>Indirect effect to MFWP Parcel 4.</li> <li>Old US 93 Impacts: Same as 2B.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Old US 93 impacts: impacts Missoula Country Club (private) entrance and landscaping; no impacts to Larchmont Golf Course.</li> <li>No impacts to Lolo National Forest or Blue Mountain Recreation Area.</li> </ul>
<p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>Where new right-of-way or a construction easement is needed on Missoula Country Club property and the fence and/or hedge is impacted, replacement fencing and/or landscaping would be installed in coordination with the property owner.</li> <li>Design and construction of any improvements along Old US 93 would include appropriate signage to alert drivers on Old US 93. Such signage could likely include a "Do Not Block Driveway" sign on Old US 93 to alert southbound (westbound) drivers of the need to maintain access to the Missoula Country Club driveway. A traffic management plan may be needed if large events like tournaments are expected to start or end during rush hour.</li> </ul>				
<b>Construction</b>				
<p><b>Impacts</b></p> <p>No impacts.</p>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Decreased mobility during construction, dust, noise, runoff, detours and traffic delays, construction vehicle emissions, temporary access restrictions, visual intrusions to motorists and residents, vegetation removal, construction debris, and risk of accidental hazardous material spills like fuel or oil.</li> <li>Short-term construction impacts to business access.</li> <li>Average traffic-related impacts and time frame to construct.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Decreased mobility during construction, dust, noise, runoff, detours and traffic delays, construction vehicle emissions, temporary access restrictions, visual intrusions to motorists and residents, vegetation removal, construction debris, and risk of accidental hazardous material spills like fuel or oil.</li> <li>Worst construction-related traffic impacts.</li> <li>Potential for economic losses both during and after construction due to access changes for businesses near the intersection.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Decreased mobility during construction, dust, noise, runoff, detours and traffic delays, construction vehicle emissions, temporary access restrictions, visual intrusions to motorists and residents, vegetation removal, construction debris, and risk of accidental hazardous material spills like fuel or oil.</li> <li>Would have the longest time frame to construct.</li> </ul>	<p><b>Impacts</b></p> <ul style="list-style-type: none"> <li>Decreased mobility during construction, dust, noise, runoff, detours and traffic delays, construction vehicle emissions, temporary access restrictions, visual intrusions to motorists and residents, vegetation removal, construction debris, and risk of accidental hazardous material spills like fuel or oil.</li> <li>Fewest construction-related traffic impacts of build alternatives.</li> <li>Would have the shortest construction period.</li> </ul>
<p><b>Mitigation</b></p> <ul style="list-style-type: none"> <li>Mitigation measures for impacts to air quality, noise, water quality, traffic control, and visual quality have been identified under individual resources.</li> </ul>				