

Air Quality Report

OR126B & McVay Highway: Mississippi Avenue – UPRR Tracks, Lane County (KN 18865)

Prepared by ODOT Air Quality Specialists August 17, 2016

Summary

An air quality analysis was performed as part of the environmental review process for OR126B and McVay Highway: Mississippi Avenue – UPRR Tracks Project in Lane County, Oregon. The project is located in the Eugene-Springfield PM₁₀ (particulate matter 10 microns in diameter or less) Limited Maintenance Area. The Lane Council of Governments (LCOG) is responsible for regional conformity in the Eugene Springfield PM₁₀ Limited Maintenance Area. This analysis shows that this project is not “a project of local air quality concern” and the requirements of the Clean Air Act Amendments (CAAA) and 40 CFR 93.116 are met without requiring a PM₁₀ hot-spot analysis. All other criteria pollutants are in attainment with the NAAQs.

The project area Mobile Sources Air Toxic (MSAT) emissions are expected to decrease in the future relative to existing conditions.

Project Description

The City of Springfield is proposing road improvements along Franklin Boulevard (OR126B), located in the southwestern corner of the City of Springfield, Lane County, Oregon. The Franklin Boulevard Project (Project) is located in the southern half of Section 34 of Township 17 South, Range 3 West, Willamette Meridian.

The first phase of the project will reconfigure Franklin Boulevard between Mississippi Avenue and McVay Highway (approximately 1,700 feet) to better accommodate the wide range of existing and future capacity needs on the street. Franklin Boulevard, also known as the McKenzie Highway, OR 126B, is currently a five-lane arterial that connects Eugene and Springfield. The Project is intended to improve traffic flow, streamline Lane Transit District’s Emerald Express (EmX) bus rapid transit service, improve sidewalks and pedestrian crossings/connectivity, improve water quality from road runoff, provide separated bicycle ways, and support redevelopment of the Glenwood Riverfront. Future phases will reconstruct Franklin Boulevard between Glenwood Boulevard and Mississippi Avenue.

The proposed project is a key component of the City’s Glenwood Refinement Plan to transform Franklin Boulevard from an outdated state highway into a modern urban hybrid multi-way boulevard corridor that enhances the safety, comfort, and convenience of pedestrians, bikes, buses, trucks, and motor vehicles.

The proposed project includes the following components:

- Grading, base, paving and drainage of approximately 1,700 feet of roadway.
- Replacement of existing intersection at Franklin Blvd/McVay Highway with modern roundabouts.
- Removal of existing traffic signals at Franklin Blvd/Brooklyn and Franklin Blvd/McVay Highway.
- Access road with on-street parking between Mississippi Avenue and McVay Highway.
- Low Impact Development Approaches to water quality for roadway runoff.
- Improved sidewalks; separated bikeways for eastbound and westbound bike traffic.
- New roadway and pedestrian level decorative lighting.
- Landscaping.

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- Relocated overhead utilities (work to be done by utility companies, including the Springfield Utility Board).

Figure 1 shows the project design and area of potential impact.

Traffic Analysis

Traffic data for this project was provided by the City of Springfield for existing year (2016), opening year (2018) and design year (2036). Traffic data was provided for two sections of Franklin Boulevard at the Brooklyn Street and Springfield Railroad (SPRR). Build annual average daily traffic (AADT) is the same as No Build and therefore no significant changes are expected in PM₁₀ emission from the construction of this project. The highest diesel truck percent is 4.8%. The growth rate in the project area is 1%. Table 1 summarizes the project traffic data.

Table 1. OR126B & McVay Highway: Traffic Data			
Scenario	Analysis Year		
	2016	2018	2036
Brooklyn Street			
Build and No Build AADT	17,645	18,000	21,530
Diesel Truck Percentage	0.63%		
SPRR			
Build and No Build AADT	12,023	12,264	14,670
Diesel Truck Percentage	4.8%		
Posted Speed			
AADT- Annual Average Daily Volumes, VMT- Vehicle Miles Traveled			

PM₁₀ Analysis

This project involves modernization to improve traffic flow with the removal of two existing signals and replacement with roundabouts and transit, pedestrian and bike improvements therefore the project is subject to both project level and regional conformity. The project is a categorical exclusion under 23 CFR 771.117 (c)(26). Project level conformity requires consideration of the local effects of this project with respect to PM₁₀ concentrations and a hot spot analysis must be performed. The highest Build AADT volumes are at Brooklyn Street and are Opening Year (2018) 18,000 and Build Design Year (2036) 21,530 vehicles. These volumes are well below the EPA guidance threshold of 125,000 AADT for projects of local air quality concern. Therefore, following the EPA transportation Conformity Guidance for Quantitative Hot Spot Analysis in PM₁₀ nonattainment and maintenance areas, this project is not a project of local air quality concern.

Since the project is not a project of local air quality concern, the requirement of the Clean Air Act and Amendments (CAAA) and 40 CFR 93.116 are met without a hot-spot analysis. The project is designed to improve traffic flow with roundabouts, streamline bus rapid transit service and improve pedestrian and bike facilities which would be expected to have a neutral or positive influence on PM₁₀ emissions. The percentage of diesel vehicles is below 8% and is not expected to be a concern for PM₁₀ emissions.

Mobile Source Air Toxics Analysis (MSAT)

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The purpose of this project is to improve traffic flow with roundabouts, streamline bus rapid transit service and improve pedestrian and bike facilities. Following the Federal Highway Administration's (FHWA) Interim Guidance on Air Toxic Analysis in NEPA documents dated December 6, 2012, this project has a low potential for MSAT effects because the project will slightly change the roadway alignment with the addition of roundabouts.

A qualitative analysis provides a basis for identifying and comparing the potential differences among MSAT emissions, if any, from No Build to Build. The qualitative assessment presented below is derived in part from a study conducted by the FHWA entitled *A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives*, found at:

www.fhwa.dot.gov/environment/air_quality/air_toxics/research_and_analysis/methodology/methodology00.cfm.

For each alternative, the amount of MSAT emitted would be proportional to the vehicle miles traveled, or VMT, assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for the Build Alternatives can be slightly higher than that for the No Build Alternative, because the project increases the efficiency of the roadway and attracts trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions for the Build Alternative along the highway corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to EPA's MOVES model, emissions of all of the priority MSAT decrease as speed increases.

However, for this project the estimated 2036 VMT (21,530 miles per day) near Brooklyn Street for the No Build and Build are the same, therefore it is expected there would be no appreciable difference in overall MSAT emissions between No Build and Build. Also, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 80 percent between 2010 and 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

The realigned travel lanes near the roundabout contemplated as part of the project will have the effect of moving some traffic closer to nearby homes and businesses; therefore, under the Build there may be localized areas where ambient concentrations of MSAT could be higher than the No Build Alternative. However, the magnitude and the duration of these potential increases compared to the No Build alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific MSAT health impacts. In sum, when a highway is widened and realigned, the localized level of MSAT emissions for the Build Alternative could be higher relative to the No Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSAT will be lower in other locations when traffic shifts away from them. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today.

Construction

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During construction CO and particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (PM₁₀) are expected to increase. These increased emissions are due to heavy construction vehicles, lowered traffic speeds, and earth excavation. These emissions create temporary impacts on the ambient air quality

Construction Mitigation

Construction contractors are required to comply with Division 208 of OAR 340, which addresses visible emissions and nuisance requirements. Subsection of OAR 340-208 places limits on fugitive dust that causes a nuisance or violates other regulations. Violations of the regulations can result in enforcement action and fines. In addition, contractors are required to comply with ODOT standard specifications. Section 290 of the specifications has requirements for environmental protection, which include air pollution control measures.

Project Level Conformity Determination with the State Implementation Plan (SIP)

The OR126B & McVay Highway Project as described is the same in design concept and scope as the project that is listed in the 2035 Regional Transportation Plan (RTP) and 2015-2018 Metropolitan Transportation Improvement Program (MTIP project #10). The air quality conformity finding for the RTP was issued by FHWA and FTA on October 2nd, 2014 and the air quality conformity finding for the MTIP was issued on May 20, 2015.

This project is not a project of local air quality concern and the requirements of the CAAA and 40 CFR 93.116 are met without requiring a hot-spot analysis. The project will not cause or contribute to any new violations of any standard, increase the frequency or severity of any existing violation or any standard or delay timely attainment of the National Ambient Air Quality Standards (NAAQs) or any transportation control measures.

Consequently, the project is in conformance with the State Implementation Plan for the Eugene-Springfield Particulate Matter (PM₁₀) Limited Maintenance Plan, May 13, 2013.

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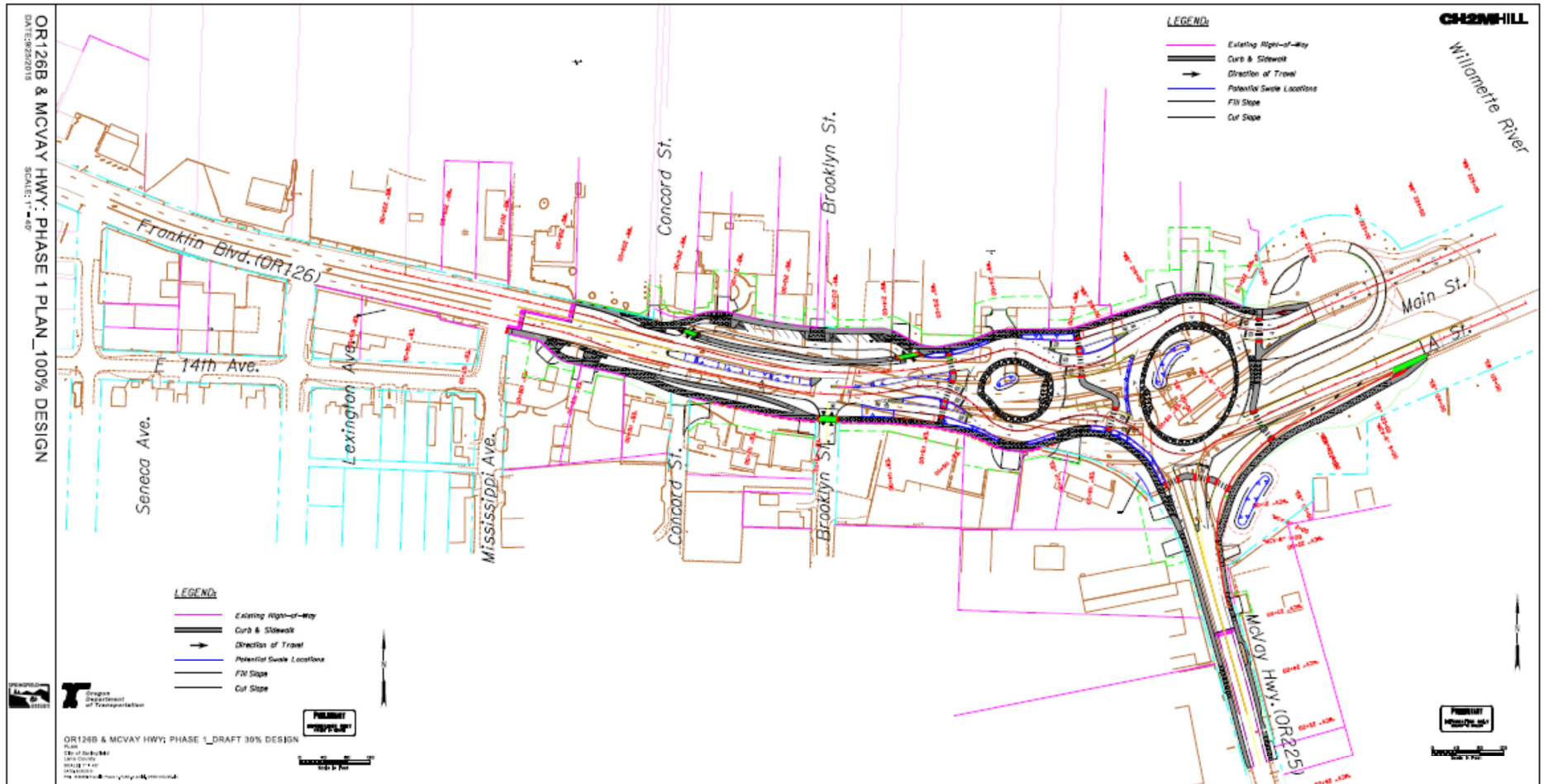


Figure 1. Project Design and Area of Potential Impact