

| INSTRUCTIONS | | | |
|--|--|---|--|
| Review ODOT's CMAQ Guidelines for allowable project types and eligibility (ODOT allows fewer project types than FHWA) | | | |
| <u>ODOT CMAQ Guidelines</u> | | | |
| PROJECT INFORMATION | | | |
| Project Title | MAX Red Line Extension | | |
| MPO (if Applicable) | Metro | STIP # | 20849 |
| Agency (applicant) | TriMet | | |
| Address | 1800 SW 1 st Avenue, Suite 300, Portland, Oregon | | |
| Primary Contact | David Unsworth | | |
| Telephone | 503-720-6091 | Public-Private Partnership? Y/N | N |
| Email | unsworl@trimet.org | | |
| Responsible Agency | TriMet | | |
| Project Location (City) | City of Portland (Portland Airport) to Fair Complex/Hillsboro Airport (Washington County) | | |
| Project Delivery | Certified Agency: X SFLP (non MPO)____ ODOT Delivered____ | | |
| PROJECT CATEGORY (Applicant Certifies by checking box that Project meets requirements as outlined in ODOT CMAQ Guidelines) | | | |
| <input checked="" type="checkbox"/> | Public Transportation Improvements | <input type="checkbox"/> | Traffic Flow Improvements for Congestion Reduction |
| <input type="checkbox"/> | Transp. Options Strategies | <input type="checkbox"/> | Vehicle and Fuel Efficiency Efforts |
| <input type="checkbox"/> | Pedestrian/Bicycle Infrastructure | <input type="checkbox"/> | Road Dust Mitigation (PM10 areas only) |
| <input type="checkbox"/> | ITS for Congestion Reduction | <input type="checkbox"/> | Project is a TCM |
| Infrastructure project is on a: __Roadway, __Bikeway or Sidewalk, __X__Transit, __Other | | | |
| Non-Infrastructure Project includes: __Operating Assistance, __Outreach/Education | | | |
| PROJECT LOCATION | | | |
| Street(s) Name (or Nearest Street): Portland Airport to Fair Complex/Hillsboro Airport Station (Hillsboro) | | Functional Class: High Capacity Transit, Fixed Guideway – Light Rail | |
| Cross Streets, Termini: Portland Airport to Fair Complex/Hillsboro Airport Station (Hillsboro) | | Total Length: Before extension: 20 miles After extension: 28 miles | |

| DETAILED COST ESTIMATE / SCHEDULE | | | | | | |
|---|--|------------------------|-----------------------|---------------|------------------|---------------|
| [Provide cost, including match, for eligible components. Use additional sheets for detailed estimate] | | | | | | |
| Phase | Program FYs (beginning and completion) | Other Federal _____ | CMAQ | Local | non Fed _____ | Total |
| Project Development | | | | | | |
| Design/ Engineering | FFY 2019, 2020 & 2021 | \$4,000,000 | | \$14,184,000 | | \$18,184,000 |
| Right of Way | FFY 2021 | \$2,608.462 | | \$2,608,461 | | \$5,216,923 |
| Construction | FFY 2021, 2022, 2023 & 2024 | \$97,391,538 | \$4,946,372 (FFY2022) | \$86,465,539 | | \$188,805,448 |
| Operating Assistance (if applicable) | | | | | | |
| Other | | | | | | |
| Totals | | \$103,999,999 | \$4,946,372 | \$103,258,000 | | \$212,204,371 |
| Duration of Project Funding (Years): 4 years (opening in 2024) Expected first year of billing: FFY2021 (NOTE: detailed cost estimate as of late April 2021. Refinements to this estimate will get finalized in mid-May and will be included in the MTIP and STIP amendment to occur after approval) | | | | | | |
| Detail any CMAQ ineligible components and how they are funded. Provide source of all local/non-federal funds | | | | | | |
| The extension of the light rail and the operational realignment at the Gateway station are eligible activities under the federal and state CMAQ eligibility requirements/guidelines. Nearly half of the MAX Red Line Extension and Reliability Improvement project is being funded with local dollars as well as funding contributions from Metro (\$4M in STBG and \$4,946,372 from CMAQ.) The remaining portion of the project is funded through the FTA Capital Investment Grant (CIG) program. | | | | | | |
| PROJECT NARRATIVE | | | | | | |
| The MAX Red Line Extension and Reliability Improvement Project is comprised of two major components. On the westside, in Beaverton and the Hillsboro area, the project will extended the MEX Red Line its current terminus from Beaverton to Fair Complex/Hillsboro Airport station resulting in the Red Line accessing existing 10 Blue Line station stops including Beaverton Central, Milikan Way, Beaverton Creek, Merlo, SW 158th, El Monica/SW170th, Willow Creek, SW 185th Transit Center, Quatama, Orenco, Hawthorn Farm and Rail Complex/Hillsboro Airport. On the eastside, at Gateway and at PDX Airport, the project will double track single track sections near Gateway/NE 99th Ave and at PDX Airport. The double track work includes track, switch, and signalization work; construction of an operator break facility at the Fair Complex/ Hillsboro Airport Station and construction of a new light rail bridge and Red Line station at Gateway along with a new pedestrian and bike path to connect the existing and new platform, stations. The purchase of new light rail vehicles is included as part of the project to address the extension of service. | | | | | | |

EMISSIONS REDUCTIONS

The Metro transportation model and the EPA approved emissions model MOVES2014a are the primary tools used in the analysis of emissions benefits for the MAX Red Line Extension and Reliability Improvements Project. The transportation model provides forecast travel volumes for opening year conditions in a build and no-build scenario for the MAX Red Line Extension and Reliability Improvements. The travel demand model accounts for land use, population, and employment to inform and generate trips and vehicle miles traveled information by link. The information on the travel forecast volumes, estimated trip shifting, origin and destination, and other related modeled travel details are then used as inputs into the MOVES2014a emissions model to help determine the amount of air pollution produced (by individual pollutant) from mobile sources of emissions. The differences between a build and no-build scenario, which looks at mobile source emissions based on conditions of whether the project is built or not built, help to determine whether there is an emission reduction benefit as a result of the project. Further details regarding the transportation modeling and emissions analysis for the MAX Red Line Extension and Reliability Improvements Project can be found as part of the supplemental materials.

The results are modeled estimates of emissions reductions are for the MAX Red Line Extension and Reliability Improvements for the opening year of service (2024).

Use the following boxes to show estimated reduction amount (kg/day).

| | | | |
|-------|------|------|-------|
| VOC | .72 | CO | 18.74 |
| NOx | 2.41 | PM10 | N/A |
| PM2.5 | N/A | CO2 | N/A |

Duration of PM10 & CO Benefit Permanent Years

SUPPORTING INFORMATION

SUPPORTING INFORMATION: List all applicable and attach documents to submittal email

- Map showing project location (required)
- Indicate what level of Operating Assistance will be required (if applicable)
- Detailed Project Cost Estimate/Budget and Schedule (required)
- Detailed Timeline for Project (required)
- Documentation if Project is a TCM in an approved SIP
- Buy America information or waiver request (if applicable)
- Cost Effectiveness Assessment (required for MPOs)
- Overview of MPO public process and criteria in project selection (required for MPOs)
- Additional quantitative or qualitative emissions analysis information
- Project Sketch/drawings or plans (required)
- Any other supporting documentation that may support successful award

SUBMISSION

| | | | |
|---------------|---|-------|-------------|
| Submitted By: | Grace Cho, Metro, Senior Transportation Planner | Date: | May 5, 2021 |
| | Name and Title | | |

Submit Completed Application to:

[E-mail: CMAQ@odot.state.or.us](mailto:CMAQ@odot.state.or.us) | [Subject Line: CMAQ \[Agency Name\] Application \[Year\]](#)

| REVIEW AND APPROVAL (ODOT USE ONLY) | | | |
|--|---------------------------------|-------|------|
| ODOT Emissions Review: | | | |
| | Air Quality Program Coordinator | | Date |
| Accept/Reject (ODOT CMAQ Program Manager): | | Date: | |
| Reason for ODOT Rejection, if applicable. | | | |
| FHWA Concurrence/ Rejection | | | |
| | FHWA CMAQ Coordinator | | Date |
| Reason for FHWA Rejection, if applicable. | | | |