

Air Quality

Analysis

Air quality analysis remains one of the most critical components of the environmental study and is a key concern for local residents, CDOT and FHWA (Federal Highway Administration). CDOT must follow the Clean Air Act requirements and guidance from the U.S. Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment (CDPHE). The 4-acre park over I-70 provides additional air quality benefits. Modeled receptors at Swansea Elementary School, which is directly adjacent to the 4-acre park, found that PM10 concentrations will be lower due to the presence of the park.

Air Quality Monitors

In response to community concerns regarding air quality, CDOT installed an air quality monitor at Swansea Elementary School in 2017. The monitor will take readings throughout construction and will continue for a full year after construction ends. In addition to the Swansea Air Monitor (SAM), four air quality monitors are located adjacent to the Project to monitor PM10 (dust) during construction. The monitors are set to alert both CDOT and Kiewit if PM10 levels start to rise. This lets the teams identify the dust-causing operation and implement additional dust mitigation measures before the PM10 levels exceed regulations. As the westbound lanes in the lowered section were completed, CDOT added two more air quality monitors. These monitors are permanent and are in sync with a series of 56-inch wide, 20-foot-long jet fans. If the air quality monitors detect various levels of hazardous chemicals (Carbon Dioxide, Nitric Oxide or Nitrogen Dioxide), one to five fans will automatically begin spinning to clear the air in the tunnel.



Construction Emissions

Kiewit Meridiam Partners and all subcontractors working on the Central 70 Project must use construction equipment equipped with modern EPA-approved pollution controls or retrofit their fleet to add these controls.