



I-205 / PORTLAND MALL MAX LIGHT RAIL PROJECT

Enhancing sustainability within the I-205 corridor

TriMet's commitment to protecting the environment touches every aspect of its business, from building MAX extensions to operating bus and rail transit service. During construction of the Interstate MAX Yellow Line, TriMet became a national model for environmentally sensitive practices, and saved the agency \$3 million.

The new I-205 Light Rail project—part of the I-205/Portland Mall MAX Light Rail project—continues TriMet's dedication to environmental stewardship with a sustainability program addressing water, soil and air issues.

Stormwater management

For decades, virtually all surfaces along freeway corridors have been impervious, allowing water runoff from the roadway to flow directly into the stormwater system, area streams and rivers. A variety of water-quality facilities will be incorporated into the I-205 light rails project to clean and detain stormwater runoff.

Vegetated bioswales will filter and slow stormwater runoff. Dry wells will detain the cleaned water and gradually release it into the soil to replenish ground water and reduce the flooding and scouring of streams and rivers. In areas where the soil is less pervious, TriMet will use creative solutions such as partial water retention measures. In addition, parking areas at some of the light rail system's buildings will utilize pervious pavement to reduce runoff.

Freeway runoff that contains oils, greases and sediment currently discharges into Johnson Creek. This water is warm, contributing to an elevated creek temperature. The project will construct a new vegetated bioswale that will treat and clean 1.4 acres (60,984 square feet) of runoff. In addition, construction will include a new bridge over Johnson Creek and 27 new trees along its bank to provide shade. Together, these measures will help clean the creek and maintain proper water temperatures to protect fish.



In 2006, TriMet contracted with Oregon nurseries to grow 600 trees for the project, while another 450 trees will be procured and planted prior to completion of the line.

Reduce and reuse

As construction progresses, TriMet and the contractor team—South Corridor Constructors—are working on a daily basis to find ways to reduce the use of new materials and reuse materials on site. This saves money by minimizing the amount of materials purchased. It also benefits the environment by keeping waste out of the landfill

and reducing emissions generated by manufacturing and transport.

Concrete: TriMet is using rock-covered slopes in place of some of the project's initially proposed retaining walls to decrease the amount of concrete used in the project. This practice will reduce the release of ozone-depleting gases caused by the concrete curing process, reduce impervious areas and result in a significant cost savings.

Sound walls: TriMet is relocating approximately 1,810 ft. of existing sound walls on the project and installing nearly one mile of new sound walls

along the I-205 light rail line. For this purpose, TriMet selected a unique product consisting of a composite plastic shell and filled with recycled, chipped tires. Manufactured by Carsonite, the new sound walls will divert a total of 9,030 tires from the landfill.

Topsoil: On a typical construction project, topsoil is stripped, taken off site to be amended and then returned. TriMet and its contractor will amend the soil on site to save transportation costs and reduce greenhouse gas emissions.

Art: Recycled glass tiles will wrap station shelter columns. Energy efficient LED lighting will illuminate station artwork.

Landscaping

TriMet will add 5.2 acres of highly diverse landscaping prepared to flourish in Northwest's climate and urban environment with minimal maintenance. The project's landscaping includes native vegetation and hundreds of trees that will absorb carbon dioxide and release the oxygen back into the air. In addition, the landscape was designed to become a focal point of the corridor, visually tying the neighborhoods together and providing a more human scale for pedestrians.

Adding new trees

More than 1,050 new trees will be planted, providing a significant increase in the number of trees along the I-205 corridor. In 2006, TriMet contracted with Oregon nurseries to grow its trees in an effort to secure the exact varieties needed to meet the design intent and to plant more mature trees. The project was able to grow 600 specific trees and the remaining 450 trees will be procured when the landscaping is installed. Light rail construction requires the removal of approximately 630 trees within the construction area.

The landscaping is intended to work on three different levels: the line/corridor scale, station scale and art scale. Project designers and artists decided to express the theme of motion through fluid forms, circles and arcs within the corridor, and the landscaping will contribute to this theme. Arcing shapes of large coniferous trees will help to connect the neighborhoods and create a metaphor for

shelter and comfort. As these trees mature, they will become a significant feature of the corridor. The landscaping plan for each station reinforces their individual identities. Unique plants and large conifers such as Ponderosa Pine, Western Hemlock or Blue Atlas Cedar will help create station distinctions. Landscapes were arranged with layers of color to highlight seasonal changes and enliven the pedestrian experience along the multi-use path and at the transit centers.

Keeping Trees Healthy

TriMet has begun supporting green infrastructure in the city of Portland and the surrounding regions in a way no major American city has yet undertaken. By using Silva Cells, a modular, underground bio-retention system, TriMet will improve stormwater management and encourage healthy tree growth near station platforms.

Adequate soil volumes are typically unavailable in urban areas, often causing street trees to die within 5-7 years of planting, and overlooking a method of reducing the flooding and non-point source pollution that can be caused by rainfall.

The large quantities of healthy soil housed within the Silva Cell serve two important functions—growing large trees and treating rainwater onsite. TriMet ordered a total of 290 Silva Cells and is dividing them between 2-3 trees near each of several station platforms along the west side of I-205 and north of Holgate.

About the project

The project is part of the larger 8.3-mile I-205/Portland Mall MAX Light Rail Project that will connect Clackamas County, one of the region's fastest growing areas, with Portland State University (PSU), the No. 1 destination in our transit system.

Stay informed

To learn more about the I-205/Portland Mall Light Rail Project, visit trimet.org/i205 or contact the project's Community Affairs staff at 503-962-2150.

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