5.8 Visual Quality

New landscape plantings along the corridor, at the Southeast 8th Street underpasses, and at the new Wilburton Tunnel will enhance visual quality. New noise and retaining walls will have customized aesthetic design treatments to soften the look and feel of these structures. Downcast and shielded lighting will help minimize glare.

The construction or modification of public highways can have a considerable effect on the quality and character of the landscape, and is a major source of public concern. In addition, federal guidelines require that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that aesthetics and visual quality receive due weight in project decision-making.

What is our study area for this analysis?

We call the area we studied in this visual quality assessment the project viewshed, and we define the project viewshed as areas that those traveling on I-405 can see from the roadway and the surrounding areas with views toward the project. Typically, if viewers can see an area or a feature from the project, a viewer located in that area or near the feature can also see the project.

What is the visual character of the study area?

The general visual character of the I-405 corridor includes a variety of visual experiences such as forested roadside areas that transition to more open views of valleys and urban landscapes. Even though the area is highly developed, views of Lake Washington, the Cascade Mountains, Mount Rainier, and Bellevue skylines create an exceptional visual backdrop.

The northbound and southbound travel lanes of I-405 parallel the general terrain and are terraced along the hillside within the study area. A wide landscaped median separates the northbound and southbound travel lanes.

The Bellevue skyline from northbound I-405

Please refer to the Bellevue Nickel Improvement Project Visual Quality Discipline Report in Appendix K (on CD) for a complete discussion of the Visual Quality analysis.

What is a Viewshed?

A viewshed is the visible surface area from an observer's point of view. We define viewsheds by what viewers can see from the project and what portions of the project viewers can see from the surrounding area.

How is Visual Quality Determined?

The project team determined the visual quality of existing views using three criteria.

- Vividness is the memorability of landscape components as they combine in striking and distinctive visual patterns.
- Intactness is the visual integrity of the natural and human landscape and its freedom from encroaching elements.
- Unity is the visual coherence and compositional harmony of the landscape considered as a whole (FHWA, 1988).

Plants and structures in surrounding neighborhoods screen the I-405 roadway along much of its edge. Local topography, vegetation, and sound walls limit views toward the roadway in some areas.

What project features will have the greatest effects on visual quality?

The project features that will have the greatest effects on visual quality include:

- Additional areas of pavement due to the creation of new travel lanes.
- Removal of mature plants and trees, particularly within the existing median.
- Construction of the new Wilburton Tunnel.
- Construction of a new retaining wall along the eastern edge of the southbound roadway.
- Placement of a noise wall approximately 16 feet high and 725 feet long along the eastern edge of the I-405 right of way.
- Construction-related activities involving equipment, workers, staging areas, cut-and-fill activities, removal of vegetation in the median, and nighttime lighting.

Exhibit 5.8-1 and Exhibit 5.8-2 on the following page show examples of the project's potential long-term effects associated with the Wilburton Tunnel and the downtown Bellevue skyline.

How will visual changes resulting from the project affect viewers?

The project will result in permanent changes to the visual environment for both I-405 users and neighbors. Although the project-related effects are permanent, we do not consider them substantial.

I-405 Users

The greatest changes southbound motorists will experience in visual quality include:

- Construction of the new Wilburton Tunnel.
- Removal of vegetation along the landscaped median.
- Construction of high retaining walls.

All individual views from the roadway last a relatively short time due to the movement and speed of the viewer.

I-405 Neighbors

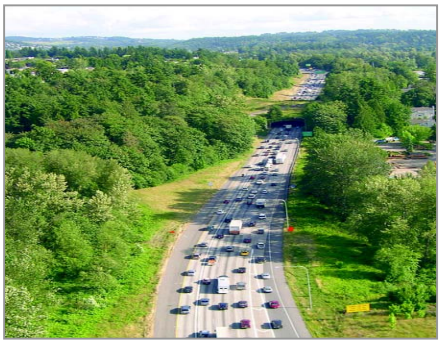
Residents in the Woodridge neighborhood are the most likely to experience visual effects from the proposed project. Terrain, fences, existing noise barriers, and landscape buffers separate most residences along I-405 from the right of way. Some residents in the Woodridge neighborhood may notice changes in their views given their proximity and location above I-405. The removal of landscaping in the median may benefit residents east of I-405 by opening up views to the Olympic Mountains, and Seattle and Bellevue skylines.

Construction of the new noise barrier along the east edge of the I-405 right of way may block views to the west of Lake Washington from the lower level units at Juniper Ridge Apartments.

Businesses that neighbor the study area are likely accustomed to the traffic and sight of the highway. Views from businesses to the right of way are limited to businesses near Southeast 8th Street. These viewers will observe some changes associated with increased light and glare from the additional travel lanes. Some businesses along Southeast 118th Avenue may also see a change in the median landscaping because of vegetation removal necessary to accommodate an additional southbound lane and the construction of the new 50-foot-high retaining wall.

Pedestrians and bicyclists traveling along Southeast 8th Street and Southeast 118th Avenue may experience some visual changes. These visual changes will be minor because existing views to the highway are limited from sidewalks, trails, and bike routes along Southeast 8th Street and Southeast 118th Avenue.

Exhibit 5.8-1. View of the Wilburton Tunnel

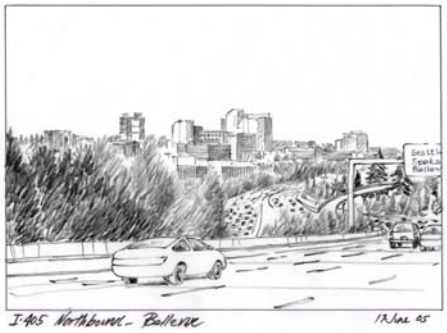


Before

After

Exhibit 5.8-2. View of downtown Bellevue

Before



After

What will views be like in the future if we do not build the project?

With the No Build Alternative, views to and from I-405 will remain basically unchanged. Existing vegetation in the median and along the edges of the northbound and southbound lanes will continue to grow and may eventually block some existing views both to and from I-405.

How will project construction temporarily affect visual quality and aesthetics?

Construction-related activities include the presence of equipment and workers, materials, debris, signage, and staging areas. Construction-related activities will temporarily affect I-405 users and neighbors. Potential temporary effects include:

- Temporary lighting used for nighttime construction and the associated light and glare from this lighting.
- Loss of mature vegetation due to clearing and grading operations. Views looking toward I-405 may see more of the roadway as a result of the vegetation removal in some areas. Most of the clearing and grading activities will occur within the median and not near adjacent properties. In some areas, exposure to glare generated by construction (illumination, headlights, construction lighting, and solar reflection) may increase with removal of roadside vegetation.
- Detours, traffic control devices, or lane shifts will require greater driver attention and may distract motorists from views outside the construction areas.

Construction activities are unlikely to affect most views. Temporary clutter may appear in some views because of the presence of construction activities, equipment, stored materials, and general disruption of landscaping with fencing, equipment, vehicles, and lighting.

What have we done to avoid or minimize negative effects on visual quality?

We will avoid and minimize negative effects on visual quality by incorporating the measures described in Appendix B into the project. We have also incorporated context sensitive solutions (CSS) into the project design to minimize the negative visual effects of the project. We developed these design solutions with community input to ensure that community concerns relating to aesthetics and visual quality received attention early in the project. These context sensitive solutions include elements such as new landscaping and plantings along the corridor, terraced wall plantings, and tree and shrub plantings at the Southeast 8th Street underpasses and the new Wilburton Tunnel.

Context Sensitive Solutions is a term used to describe a collaborative, approach whereby a transportation facility is designed with extensive input from the public to fit its physical setting.

In addition, the new noise barrier and retaining walls will have customized aesthetic design treatments to soften the look and feel of these new structures.

Other examples of treatments we will use to avoid or minimize negative effects include using downcast lighting sources, and applying texture and color to concrete walls to reduce apparent scale.

We can address light and glare effects associated with nighttime construction activities by using downcast lighting sources and shielding lighting from nearby properties.