CHAPTER 5.5 Visual Quality

Context-sensitive solutions such as architectural treatments will be applied to this project to improve the aesthetics of the highway corridor. In some areas, existing topography and vegetation will screen the project from freeway neighbors. In other areas, views will be improved; however, many people will have their views affected negatively.

When a person views their environment during an everyday commute or on a first-time trip through an area, the visual characteristics strongly influence a response, either positive or negative.

This section describes how WSDOT studied visual quality for the Tukwila to Renton Project and examined how construction and operations will affect the views found within the local communities.

People traveling I-405 and SR 167 will see views change as the corridor improvements are constructed

How did WSDOT evaluate visual resources for this project?

The FHWA *Visual Impact Assessment for Highway Projects* (FHWA-HI-88-054) method was used to evaluate visual quality for the Tukwila to Renton Project. To ensure that the potential effects to visual quality and aesthetics resulting from a transportation project are adequately and objectively considered, the FHWA method uses both quantitative and qualitative analyses to remove subjectivity and provide a basis for comparison. The quantitative analysis assigns numerical values to describe the physical attributes of the landscape character using professionally accepted terminology. This numerical method results in a visual rating scale from 1 to 7, with 1 being low visual quality and 7 being high visual quality.

Please refer to the Tukwila to Renton Project Visual Quality Technical Memorandum in Appendix R for a complete discussion of the Visual Quality analysis.

What are context-sensitive solutions?

Context-sensitive solutions (CSS) are guidelines that incorporate design preferences into a project's design. Throughout development of I-405 project, local input has been encouraged to ensure that community concerns for how the project fits into the landscape are addressed.

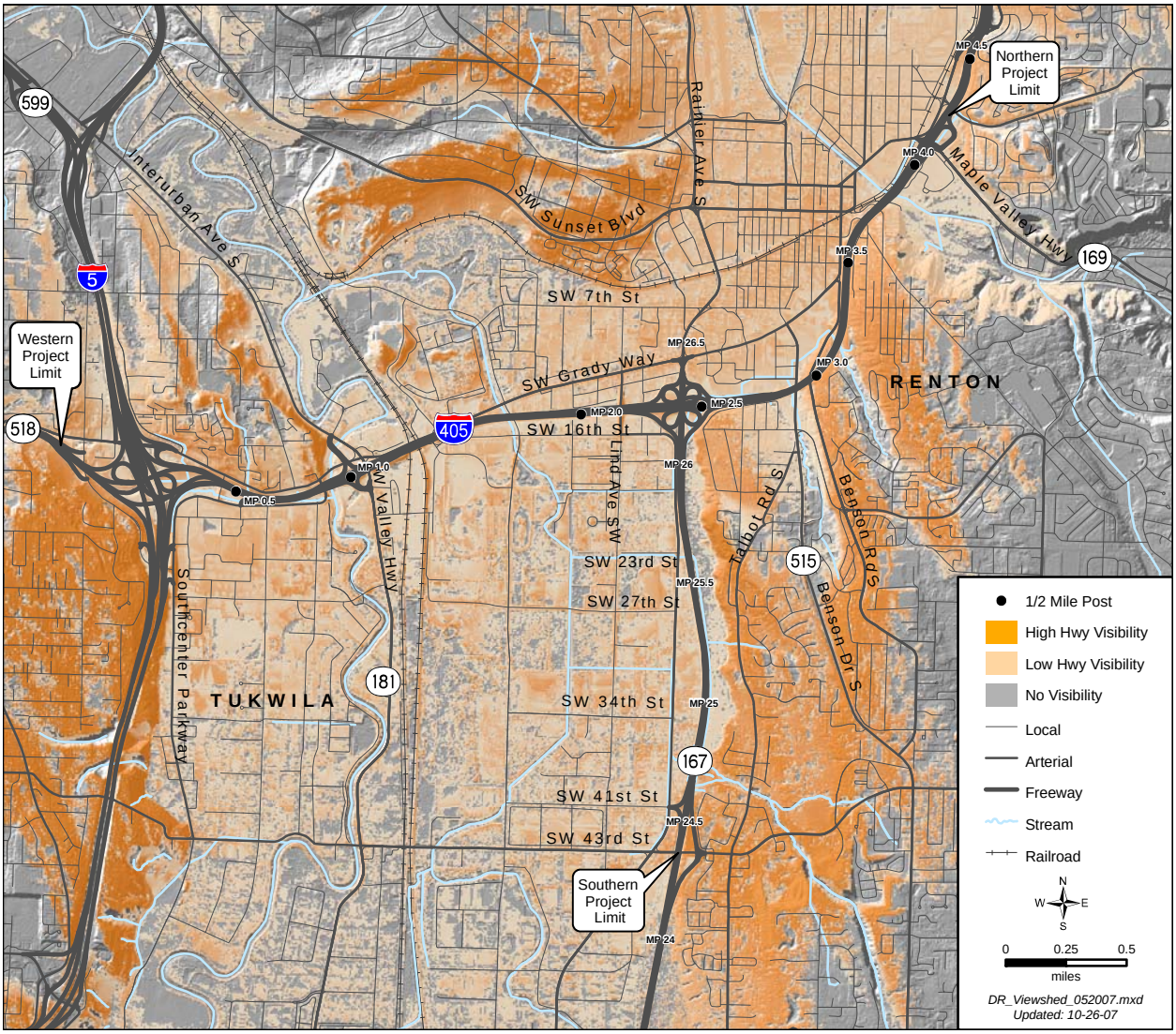
These efforts have resulted in an I-405 theme of "Culture, Nature, and Progress," with nature being the dominant theme for corridor-wide and local I-405 designs.

What views can people currently see in the study area?

The area that is visible from the project is called the topographic viewshed. The topographic viewshed is defined as areas with a line-of-sight looking toward and away from I-405 without regard for how vegetation and structures screen

views.[6] Exhibit 5-23 illustrates the topographic viewshed for the Tukwila to Renton Project.

Exhibit 5-23: Tukwila to Renton Project Topographic Viewshed



What project features will have noticeable effects on visual quality?

The primary changes to I-405 that will affect visual quality will generally be caused by the following improvements from west to east (northbound) as follows:

- Five reconstructed bridges and one new bridge over the Green River.

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[6] *I-405 Visual Resources Expertise Report*, David Evans and Associates, 2001.

- Southbound and northbound frontage roads (elevated structures) connecting Talbot Road and Lind Avenue.
- Direct-connector ramps (elevated structures) between southbound I-405 and southbound SR 167 and northbound SR 167 and northbound I-405 at the I-405/SR 167 interchange.
- Two additional general-purpose lanes in both directions on I-405 from SR 167 through SR 169 and the associated retaining wall (below the reconstructed S 14th Street in Talbot Hill Neighborhood), requiring demolition of 13 single-family homes.
- An on-ramp from Talbot Road (SR 515) and associated 70-foot tall retaining wall requiring demolition of two apartment buildings in the Berkshire apartment complex on Renton Hill.
- Main Avenue design option would reconfigure the road for two-way traffic to provide access to Bronson Way. The Main Avenue design option would require demolishing five buildings on the east side of the street. However, the Mill Avenue design option is preferred for this project. See Chapter 5.8 for more discussion of the project's two design options.
- Relocate the BNSF Railroad Bridge over the Cedar River north of its current alignment and reconstruct three bridges over the Cedar River.

For a more detailed explanation of these project features, see Chapter 4 of this EA.

How will the completed project affect what people see?

The project will permanently change the visual character for both I-405 users and neighbors. In some areas, existing topography and vegetation will make the project less visible to many viewers. In these areas, effects to visual quality will be minor. However, where the project is not screened and where the project elements are extensive, visual quality will be noticeably different. Measures to minimize effects to visual quality are described in Section 6.

The changes to visual quality were found to be positive in some areas, but negative in most areas. Of the twelve

viewpoints analyzed for this project, one was found to be a positive change and 11 were found to be a negative change. One additional viewpoint, T-9, was analyzed to evaluate effects of the two design options for replacing local access. The evaluation showed that the Main Avenue design option would have a slight positive effect on visual quality. A summary of the visual effects findings is shown in Exhibit 5-24.

Exhibit 5-24: Summary of Potential Visual Quality Effects

View Point	Existing Visual Quality	Potential Visual Quality	Change in Visual Quality	Primary Viewer Group(s)	Viewer Sensitivity	Frequency	Type/ Duration	Visual Quality Effect
Views From the Road								
F1	3.75	3.00	-0.75	I-405 Travelers	Low	High	Moving/short	Negative
F2	3.75	3.50	-0.25	I-405 Travelers	Low	High	Moving/short	Negative
F3	3.75	3.33	-0.42	I-405 Travelers	Low	High	Moving/short	Negative
Views Toward the Road								
T1	3.92	2.92	-1.00	Pedestrians	Moderate	Moderate	Moving	Negative
T2	3.33	3.67	+0.34	Employees, Pedestrians	Low	Moderate	Moderate	Positive
T3	3.75	2.75	-1.00	Residents[1], Local Traffic	High	High	Stationary	Negative
T4	2.67	2.08	-0.59	Residents[2]	High	High	Stationary	Negative
T5	3.42	2.58	-0.84	Residents[2], Local Traffic	High	High	Stationary/Moving	Negative
T6	2.92	2.75	-0.17	Visitors	Moderate	Moderate	Moderate	Negative
T7	4.25	2.92	-1.33	Residents[1]	High	High	Stationary	Negative
T8	3.75	2.17	-1.58	Visitors, Local Traffic	Low	Moderate	Moving/Short	Negative
T9 (Main Avenue[3])	2.17	2.33	+0.16	Residents[2], Local Traffic	High	High	Stationary/Moving	Positive
T9 (Mill Avenue[3])	2.17	2.17	0.00	Residents[2], Local Traffic	High	High	Stationary/Moving	No Effect
T10	4.25	2.92	-1.33	Residents[1] Local Traffic	High	High	Stationary/Moving	Negative

[1] Single-family, [2] Multifamily; [3] one of two design options to provide access to Bronson Way for local northbound traffic

Exhibit 5-25 shows where each viewpoint is located and examples of the visual changes are shown in Exhibits 5-26 and 5-27.

Exhibit 5-25: Viewpoint Locations

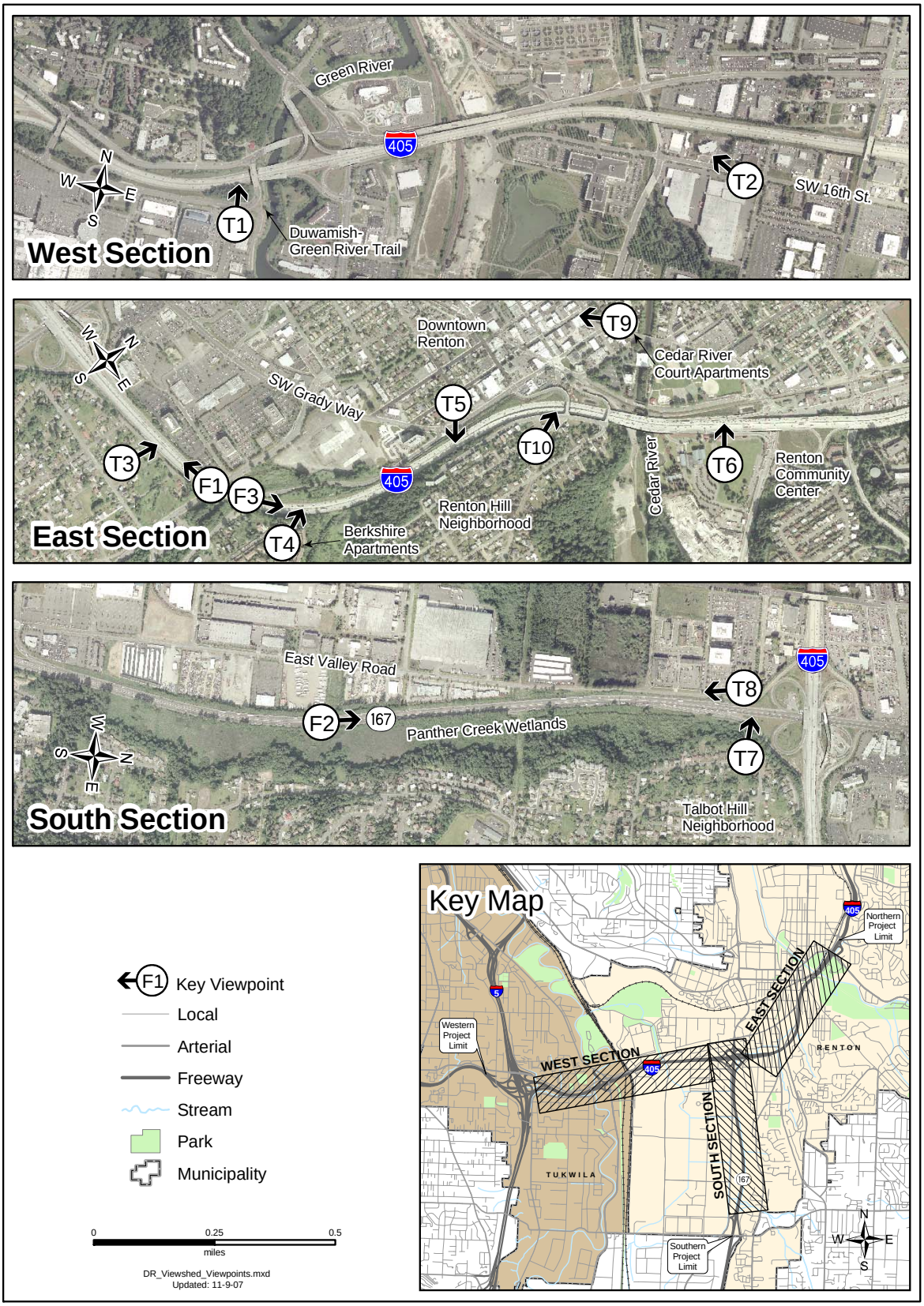

Exhibit 5-26: Visual Change of Southbound I-405 from a Driver's Perspective (Viewpoint F1)

southbound I-405 – baseline

southbound I-405 – proposed

Exhibit 5-27: Visual Change of Southbound SR 167 from a Pedestrian's Perspective (Viewpoint T8)

southbound SR 167 – baseline

southbound SR 167 – proposed

What would happen to visual resources if WSDOT did not build this project?

If this project is not built, the visual quality of the area will not change.