

4.6 Visual Resources

Roadway projects may change the character and or/quality of the visual environment, as experienced by viewer groups such as local residents, through travelers, commuters, and tourists.

4.6.1 Affected Environment

The study area for assessing visual resources includes a 1,000-foot buffer of the alignments for the Build Alternatives. The study area is situated in the eastern-central portion of the coastal lowlands region of NH. Low-lying ponds, lakes, and streams that are bounded by gently rolling hills or nearly level sandy terraces characterize much of the study area. The viewshed of the study area includes a variety of natural amenities such as farm fields, forests, wetlands, and several water bodies. Vegetation communities range from open lands (e.g., maintained croplands and freshwater marshes) to diverse upland and wetland forest types.

The viewshed of the study area also includes human-made development, which in some instances enhances the quality of the view because of the presence of important cultural resources. These resources include the Derry Village Historic District; Hoodcroft Country Club golf course; Adams Memorial Building; and the Matthew Thornton House, designated a National Historic Landmark and listed on the National Register of Historic Places (NRHP) in 1971. The Rockingham Recreational Trail and the Derry Bike Path, two converted railroad beds, provide scenic vistas for walking, jogging, biking, snowshoeing, cross country skiing, and equestrian traffic.

In Londonderry, Apple Way consists of approximately 10 miles of roads that have been designated by the New Hampshire Office of Energy and Planning as a NH Scenic and Cultural Byway and includes stretches of Pillsbury Road directly west of the Interstate, where extensive apple orchards contribute to the diversity of the viewshed.

A section of the Robert Frost Scenic Byway follows NH 28 through Derry, along East Broadway between Crystal Avenue and North Main Street. The Derry Rail Trail and the former train station, once a regular stop along the former M&L branch of the Boston & Maine Railroad, is located directly south of East Broadway.

In contrast, portions of the study area that diminish the quality of the viewshed because of the type of land use include the more commercially oriented developments along NH Routes 28 and 102, as well as the Derry Wastewater Treatment Plant and Derry Transfer Station and transmission line corridors.

Along the preferred alternative, the alignment includes sparse residential areas west of I-93, and east of I-93, the alignment begins in undeveloped, forested land with rolling hills. Near Madden Road, a combination of industrial and commercial properties along with some residential areas dominate the viewshed. The views along the alignment as it follows Tsienneto Road are primarily of commercial development, and east of North Main Street (NH 28), the views are dominated by residential areas. Near the eastern terminus of the preferred alternative at Chester Road (NH 102), the viewshed is dominated by residential areas and Beaver Lake.

Along Alternative B, the alignment includes sparse residential areas west of I-93, while east of I-93 the alignment begins in undeveloped, forested land with rolling hills. It diverges from Alternative A west of the industrial area along Madden Road. To the north and east of Franklin Street, the viewshed is dominated by commercial areas. East of NH 28, the view transitions from

commercial development to undeveloped, forested land, interspersed with residential use. As the alignment continues to Chester Road (NH 102), the view is a combination of residential areas and undeveloped, forested land. At the eastern project terminus, Beaver Lake is also visible.

Along Alternatives C and D, the alignments begin in undeveloped land and sparse commercial development. When the alignments join Rockingham Road (NH 28), the views include sparse residential development and transitions to more dense commercial development. When Alternatives C and D diverge, Alternative C follows Alternative B. East of NH 28, the view transitions from commercial development to undeveloped, forested land. As the alignment continues to Chester Road (NH 102), the view is a combination of residential areas and undeveloped, forested land. At the eastern project terminus, Beaver Lake is also visible.

At the divergence of Alternatives C and D, Alternative D follows Alternative A. The views along the alignment as it follows Tsienneto Road are primarily of commercial development, and east of North Main Street (NH 28), the views are dominated by residential areas. Near the eastern terminus of Alternative A at Chester Road (NH 102), the viewshed is dominated by residential areas and Beaver Lake.

The viewshed along Alternative F is dominated by developed land, with commercial and industrial-oriented developments near I-93, dense development along the commercial downtown Derry extending east on Broadway (NH 102), and residential developments and the Golf Course as the alignment travels east of downtown Derry to the terminus at the NH 102/NH 28 Bypass/East Derry Road traffic circle.

4.6.2 Environmental Consequences

Visual impacts may include changes to both the natural and man-made environments. Impacts can result from introducing new roadway elements into the existing environment, demolishing buildings in both commercial and residential areas, and widening existing roads.

In general, widening the Interstate for Alternatives A through D would increase the overall roadway footprint and create larger cut and fill slopes, which would increase the visual scale of the roadway. The addition of overpasses would increase the distance from which the highway would be visible. The larger footprint would necessitate removal of some existing roadside vegetation. Where this vegetation is part of forested buffer between the highway and adjacent development, this would have an adverse effect upon the quality of views from the highway.

Removal or reduction of the vegetative buffers between the highway and development would have a more substantial adverse effect on nearby residences and businesses than on highway users.

The following discussion highlights potential impacts on the visually sensitive resources for each alternative, including areas where vegetative buffers provide screening of the highway from residential areas adjacent to the Project.

Alternative A

The majority of the preferred alternative corridor includes existing roads located in highly developed residential and commercial/industrial areas. Therefore, in most areas of the preferred alternative corridor, the existing traffic volumes, along with the type of development and its density, make for an environment that is not particularly sensitive from a visual perspective.

Following the upgrade of Tsienneto Road, businesses and residences would front a road with improved points of access and egress. In some cases, improvements to the roadway and business entrances and exits would likely result in an enhanced visual environment when compared to existing conditions. One potential area of exception may be the residential neighborhood between NH 28 Bypass and NH 102. The neighborhood along this section of roadway is primarily residential, and it includes two historic resources (see Section 4.18) as well as areas of open fields and a large, emergent wetland near the intersection of Tsienneto Road and NH 102. Most of the homes in this area are set back from the road and located in subdivisions. The preferred alternative would not result in adverse effects to historic structures located along this segment of the corridor. Therefore, the upgrade of Tsienneto Road would have very little impact on the existing viewshed.

Between I-93 and Franklin Street Extension, the preferred alternative corridor would be constructed in an undeveloped area of land. This area likely provides an opportunity for local residents to hike, bird watch, hunt, and participate in other forms of outdoor recreation. From a visual perspective, the area represents a visually pleasing landscape of woodlands and wetlands. However, there is also abundant evidence of past and ongoing illegal dumping activities, as well as all-terrain vehicle usage, which detracts from the overall visual experience. Moreover, a portion of the land that would be used for the preferred alternative is privately owned and has been posted. Thus, recreational opportunities, including enjoyment of the visual environment on these portions of the undeveloped land, would be limited to those individuals with landowner permission to access the property.

Alternative B

Between I-93 and Franklin Street Extension, the Alternative B corridor would cross the same undeveloped land as Alternative A. Here, the impacts on the visual experience associated with Alternative B would be essentially the same as Alternative A, with one notable difference. It is likely that the requirement to construct a new crossing over Shields Brook with Alternative B would influence the existing visual environment to a far greater degree than the widening required for the existing Folsom Road crossing associated with Alternative A. Farther to the east, Alternative B would cross the highly developed areas associated with the Derry Industrial Park and NH 28. This portion of the corridor is not visually sensitive, and construction of the Alternative B roadway and associated improvements to NH 28 would likely have little effect, if any, on the existing visual experience. To the east of NH 28, Alternative B would cross currently undeveloped areas all the way to the intersection of Tsienneto Road and NH 102. These areas are generally visually sensitive and include forested uplands and wetlands, a beaver impoundment, scrub-shrub and emergent wetlands, open fields, and streams. The combination of these natural resources offers a pleasing landscape setting. Opportunities likely exist for hiking, bird watching, and other forms of outdoor recreation. However, the presence of the cleared utility corridor in proximity to the Alternative B corridor in this area would also likely be seen as detracting from the visual experience. Similar to Alternative A, some of the land that would be used for Alternative B is posted as private land, limiting public access to portions along the corridor. The Alternative B alignment would also likely have a negative effect on the existing viewshed for those residents living on both sides of the corridor.

Alternative C

The western end of the Alternative C corridor would be constructed in an undeveloped area of and east of I-93 and south and west of NH 28. This undeveloped area includes forested uplands and wetlands located between NH 28 and the existing utility line corridor. Large portions of this area appear to once have been part of a gravel pit, and there is evidence of this past disturbance present throughout the forested areas. The portion of the Alternative C corridor that follows NH 28 would pass through a commercial area and any visual impacts associated with roadway improvements would be negligible. From NH 28 to the east of the corridor at the intersection of Tsienneto Road and NH 102, the visual impacts would be similar to those already described for Alternative B.

On the west side of I-93, in the vicinity of the proposed interchange location for Alternative C, is the Reed Paige Clark Homestead properties. It was determined that the work associated with the west side of the interchange for Alternative C would have a Section 106 adverse effect on this historic property. This impact would include the potential for visual impacts caused by having a major raised interchange approximately 2,000 feet south of the historic farmhouse, which is located on the north side of Stonehenge Road.

Alternative D

Between I-93 and NH 28, the Alternative D corridor would have similar impacts on the visual environment as Alternative C, including the Section 106 adverse effect on the historic Reed Paige Clark Homestead. To the east of NH 28, Alternative D would follow the same alignment as Alternative A. As a consequence, this portion of the corridor would have identical visual impacts as Alternative A.

Alternative F

Because of the existing historic buildings along NH 102, the viewshed of this corridor would likely experience substantial impacts. The proposed Alternative F would extend along NH 102 through the Broadway Historic District, adjacent to the Derry Village Historic District, and past one individual historic building. This would profoundly affect the character of downtown Derry. Following the upgrade of NH 102, businesses and residences would front a wider road, diminishing the small town and historic characteristics of this portion of the corridor. The residential and commercial buildings would likely suffer from decreased distance from the edge of road to the existing buildings, loss of available parking, decreased access for pedestrians, and difficulty accessing properties.

4.6.3 Mitigation

In general, mitigation measures for visual impacts would include designing roadway elements, culverts, bridges, and other structures to be less intrusive. In visually sensitive areas, landscape screening and/or privacy fencing could buffer residences from impacts caused by adjacent development of, and improvements to, roadways. In particular, landscaping and plantings in the area of bridge abutments, retaining walls, and the interchange could be used to lessen visual impacts. During final design, mitigation measures for visual impacts would be further evaluated, and where practicable, incorporated into the design.