

Section 4(f) Evaluation

5.1 Introduction

Section 4(f) of the Department of Transportation Act of 1966 stipulates that, prior to taking an action that uses land (acquires new right of way) from a significant publicly owned park, recreation area, wildlife or waterfowl refuge, or from a historic property or archaeological site on or eligible for the NRHP, the agency proposing the action must determine that there is no feasible and prudent alternative to the use of the land from the property, and that the proposed action includes all possible planning to minimize harm to the property resulting from the use.

This draft Section 4(f) evaluation describes the 4(f) resources likely to be affected by each of the alternatives considered in the Route 2/2A/32 Draft EIS, and provides an estimation of impacts based on planning concepts. Avoidance alternatives and measures to mitigate harm are discussed.

5.2 Project Description

The Route 2/2A/32 Transportation Improvements project is described more fully in Chapters 1 and 2 of this Draft EIS.

5.3 Purpose and Need

The purpose of the Connecticut Route 2/2A/32 EIS project is to provide a safe and efficient transportation improvement solution to relieve traffic congestion and improve safety on the Route 2, 2A, and 32 corridors and associated state routes that intersect with Route 2. This project purpose has been agreed to by the cooperating federal and state agencies.

The analysis of existing conditions reveals that the key study area roadways have geometric, capacity, and safety deficiencies. The analysis of existing and future conditions reveals that the study area has and is expected to continue to experience substantial traffic volume growth on both major and secondary roadways. Recent development at the region's two casinos has imposed increasing demands on the roadways serving the casinos. Continued growth

at the casinos and at other development nodes throughout the region will increase these travel demands and will tend to spread them to other arterial and secondary roadways. See Section 1.4 (Purpose and Need) for more information.

5.4 Alternatives Evaluated

Six alternatives are evaluated in an attempt to identify the most practicable options to achieve the project objectives. More than 100 alternatives have been evaluated during the MIS and EIS processes. Alternatives which clearly did not meet the project purpose, were not feasible to construct, or which would have unacceptable levels of environmental impact were eliminated from consideration prior to the EIS. Alternatives included in the Draft EIS are fully described in Chapter 2, and include:

- Alternative A, No Action
- Alternative B, Rail and Regional Transit
- Alternative C, Rail and Regional Transit, with a direct system connection
- Alternative D, Bus Transitway
- Alternative E, Route 2A Bypass with improvements to other regional roadways
- Alternative F, Route 2A and Route 2 Bypasses, with improvements to other regional roadways

5.5 Section 4(f) Properties

Section 4(f) properties are more fully described in Sections 3.10 (Public Parks, Recreation Areas and Wildlife Refuges), 3.8 (Historic Resources) and 3.9 (Archaeological Resources) of this Draft EIS, and in supporting technical reports (*Public Parks, Recreation Areas and Wildlife Refuges Technical Report; Historic Resources Technical Report; Archaeological Resources Technical Report*). These reports are available for review at Town Halls and public libraries within the study area, and at ConnDOT. Within the study corridors, these include:

- Public Parks and Recreation Areas
 - Milton Green Park, Preston
 - Whitehall Park, Ledyard
 - Downer-Doane Park, Preston
 - Wheeler Elementary School and Gymnasium fields, North Stonington
 - Rocky Hollow Recreation Area, North Stonington
 - Gingerella Recreation Complex, Westerly

- Wildlife Refuges
 - Rose Hill Wildlife Management Area
 - Assekong Swamp Wildlife Management Area
- National Historic Register Historic Districts and complexes
 - Poquetanuck Village Historic District
 - Hallville Historic District
 - Preston City Historic District
 - North Stonington Historic District
 - Laurel Hill Historic District
 - Downtown Norwich Historic District
 - Fort Shantok National Landmark
 - American Thermos Bottle Co.
 - Thames Tow Boat Co. Shipyard
 - Westerly Downtown Historic District
 - John Randall House, North Stonington

A Historic Properties survey was undertaken within the study area, and identified other potentially-eligible National Register Historic districts and properties. These are described in detail in the Historic Properties Survey, and summarized in Section 3.8 of this Draft EIS. Additional, potentially-eligible districts include:

- The Uncasville Mill area in Montville
- The Hewitt area in North Stonington
- The Taugwonk/Stony Brook area in Stonington and North Stonington
- The Wintechog area in North Stonington
- The White Rock area in Westerly
- The U.S. Coast Guard Academy

5.6 Potential Impacts to Section 4(f) Properties

Each of the alternatives evaluated in the Draft EIS would require the use of Section 4(f) properties. Impacts are described in more detail in Sections 3.8, 3.9, and 3.10 of this Draft EIS, and in the supporting technical reports.

Impacts are here described and defined in accordance with Section 4(f). The “use” of a 4(f) resource is defined as any acquisition of property associated with a public park, recreation area, wildlife refuge, or property listed on or eligible for listing on the NRHP. “Constructive use” is defined as any activity in proximity to a 4(f) resource that is so great that the purposes for which the 4(f) site exists would be substantially impaired. Archaeological sites are subject to Section 4(f) only if SHPO determines that preservation in place is

warranted. This determination has not yet been made for any known archaeological site within the project area, and would be made during the design phase, prior to construction.

This analysis is preliminary, and is based on the assumption that all properties determined to be potentially eligible for listing on the National Register are subject to protection under Section 4(f). A more detailed analysis would be made for the Proposed Action.

In this section, the impact to each property for which there would be a “use” or “constructive use” under Section 4(f) is described, to the extent possible based on the conceptual level of the project elements, and alternatives that would avoid or minimize any use of the property are described.

**Table 5.6-1
Use of Section 4(f) Properties**

Alternative	Parks and Recreation Areas	Wildlife Refuges	National Register Districts and Potential Districts	National Register Properties and Potentially Eligible Properties	Known Archaeological Sites
A	None	None	Potential constructive use due to increased traffic-caused vibration in Poquetanuck and Hallville Districts	None	None
B	Whitehall Park Gingerella Recreation Area	Rose Hill WMA	Hallville and North Stonington Historic Districts; Hewitt Area, White Rock Area, Westerly Downtown Historic District	38	2
C	Whitehall Park Gingerella Recreation Area	Rose Hill WMA	Same	Same	2
D	Gingerella Recreation Area	None	North Stonington Historic District; Hewitt Area, White Rock Area, Westerly Downtown Historic District,.	29	1
E	None	Assekonk Swamp WMA: Rose Hill WMA	Hewitt Area,	25	1
F	None	Assekonk Swamp WMA: Rose Hill WMA	Taugwonk/Stony Brook Area, Wintechog Area	14	1

5.6.1 Alternative A (No-Action)

Alternative A would be likely to require a constructive use of the Poquetanuck Village and Hallville National Historic Districts, particularly the historic structures located directly adjacent to the road, due to the effects of vibration from increasing automobile and bus traffic. This impact could be avoided only through implementation of one of the Build alternatives.

5.6.2 Alternative B (Rail/Transit)

The transitway component of Alternative B would require the use of the Rose Hill WMA (1.6 ha/4.0 ac), Whitehall Park (0.3 ha/0.7 ac), and the Gingerella Recreation Complex (0.1 ha/0.2 ac). Adverse effects on purpose and function of the Rose Hill WMA and Gingerella Recreation Area would be minor. However, the Transitway would eliminate the existing parking lot and access to Whitehall Park. In Poquetanuck, the station would be constructed adjacent to Milton Green Park, but would not impair the use of the park, which is adjacent to existing roads.

Use of these 4(f) resources is not avoidable, as there are no feasible alignments for the transitway that would avoid the Rose Hill WMA, Whitehall Park, or Gingerella Recreation Area. The transitway follows the former bed of the Norwich-Westerly Tramway, a trolley line which operated in the region prior to the 1920s and which passes through the Rose Hill WMA and Whitehall Park. No other alignment is feasible that would completely avoid impacts to these areas, primarily due to the constraints of topography. Impacts to these areas are minimized by the use of the former trolley alignment, which is currently used as a path and utility corridor, minimizes any alterations to the terrain in these areas.

The transitway would also pass through a portion of the North Stonington Historic District and a portion of the Hallville Historic District, and would require the acquisition of new right-of-way within these districts. Due to the extent of these historic districts and the location of the extensive Shunock River wetlands in North Stonington, there are no alternative transitway alignments that would avoid these resources. The transitway would also require the acquisition of right-of-way within the potentially-eligible Hewitt Area identified in North Stonington. In Westerly, the transitway would also require new right-of-way within a portion of the White Rock Area (the tailrace along the Pawcatuck River). Due to the geometric requirements of the alignment, it is not feasible to avoid these areas.

Within the Westerly Downtown Historic District, the transitway would utilize the existing Amtrak right-of-way. However, two bridges that are potentially eligible for listing (Canal Street and West Street) may require widening. Although the light rail mode would be within the Downtown Historic District, it would not be expected to result in a constructive use, and

would not impair the character of the district. The monorail mode however, if selected, would have a discordant visual impact within the District due to the elevated structure, which would not be consistent with the historic character of the downtown area.

The transitway would require construction adjacent to the American Thermos Bottle Co. site in Norwich, and would require construction of a new bridge adjacent to the P&W Shetucket River bridge, as well as modifications to the Norwich East Transportation Center (to be constructed by the City of Norwich within the Norwich Downtown Historic district). This construction would not require new right-of-way, nor would it affect the visual setting of these resources. This construction, with the possible exception of construction of a new transit bridge over the Shetucket River, would not constitute a 4(f) use. The new bridge would require unavoidable purchase of new right-of-way within the historic district. Impacts could be minimized by design that was consistent with the existing historic structure.

Improvements to the NECR and construction of the Connecticut College/USCG Station would require work adjacent to the Thames Tow Boat Co. site, and construction of a passing siding within the limits of the USGC Academy. This work would be done within the existing rail right-of-way, and would not require the acquisition of new right of way, nor would it impair the use or change the setting of these areas. This alternative would also require the acquisition of all or part of 38 4(f) properties that are potentially-eligible for the National Register. The majority of these would be associated with the Transitway, but properties along portions of Route 2 in North Stonington would be affected by upgrading that road. The I-95 Transportation Center would also affect one potentially-eligible property. These impacts are generally not avoidable due to the topographic constraints required for the transitway. Impacts to properties along Route 2 would be avoided only by not upgrading the road, since historic properties are present along both sides of the road.

5.6.3 Alternative C

Alternative C would have similar effects as Alternative B, with the addition of a new transit bridge across the Thames River. Two options are considered for the location of this structure. Neither bridge would result in additional impacts to Section 4(f) resources.

5.6.4 Alternative D

The busway component of Alternative D would require that a portion of the Gingerella Recreation Complex in Westerly be acquired for new right-of-way, resulting in a loss of 0.1 ha (0.2 ac) of that property. No other alignment is

feasible that would completely avoid impacts to this area, primarily due to the constraints of topography and Westerly wellfields.

The busway would also require the acquisition of new right-of-way within the North Stonington Historic District. Due to the extent of these historic districts and the location of the extensive Shunock River wetlands in North Stonington, there are no alternative busway alignments that would avoid these resources. The busway would also require right-of-way within the potentially-eligible Hewitt Area identified in North Stonington. This impact is not avoidable, since the Hewitt Area extends along both sides of Route 2. In Westerly, the busway would also require new right-of-way within the White Rock Area (the tailrace along the Pawcatuck River). Due to the geometric requirements of the alignment, it is not feasible to avoid these areas.

This alternative would also require the acquisition of all or part of 29 properties that are potentially eligible for, or are listed on, the National Register. The majority of these would be associated with the busway, but properties along Route 2 in North Stonington would be affected by upgrading that road. The I-95 Transportation Center would also affect one potentially-eligible property. These impacts are generally not avoidable due to the topographic constraints required for the transitway. Impacts to properties along Route 2 would be avoided only by not upgrading the road, since historic properties are present along both sides of the road.

5.6.5 Alternative E

Alternative E would require the acquisition of portions of the Assekonk Swamp WMA in North Stonington (0.1 ha/0.2 ac) and the Rose Hill WMA in Preston (< 0.1 ha/0.2 ac) through the widening of Route 2. Several widening options were considered for North Stonington. The current concept was selected because it would impact only one of the two 4(f) properties in the vicinity of the North Stonington Village, and would not substantially affect the use or functions of the Assekonk Swamp WMA. The widening of Route 2 could also affect the potentially-eligible Hewitt Area in North Stonington, present along both sides of Route 2, as well as other historic and potentially-eligible properties along Route 2, including the Randall House.

Alternative E, including widening Route 2 and constructing the Route 2A Bypass, could result in the use (acquisition) of all or part of 25 historic properties. The Route 2A Bypass would affect 4 potentially eligible properties in Preston. Widening Route 2 in Preston and North Stonington would require the use of additional historic properties. Since these properties occur on both sides of Route 2, there are no widening options that would avoid these impacts. Further refinement of the concept could reduce impacts by shifting the roadway centerline. Alternative E would not require any new right-of-way acquisition within the North Stonington Historic District.

Avoidance or minimization of impacts along the Route 2A Bypass may be possible with modifications to the planning concept alignment.

The Route 32 Upgrade would require construction within the existing roadway adjacent to historic properties and the Uncasville Mill Area, but would not result in a use or constructive use of these properties.

The Route 164 Upgrade would require construction within the existing roadway in the Preston City Historic District, but would not require the acquisition of new right-of-way, and would not change the character of the roadway or the district (would not constitute a constructive use)

5.6.6 Alternative F

Alternative F would require the acquisition of new right-of-way within a portion of the Assekonk Swamp WMA east of Jeremy Hill Road (4.3 ha/10.7 ac), and a portion of the Rose Hill WMA in Preston (< 0.1 ha/0.2 ac). An avoidance alternative for use of the Assekonk Swamp WMA was investigated. This alternative would require shifting the alignment further west (uphill) and would impact approximately 15 additional residences. The selected concept was chosen because it minimized impacts to the WMA while minimizing direct impacts to residences along Jeremy Hill Road.

The Route 2 Bypass would require new right-of-way within the potentially-eligible Taugwonk and Wintechog Areas, altering the characteristics of the open farm landscape and the integrity of the Wheeler Farm complex in Stonington. Due to the extent of these areas, there are no feasible alternative alignments that would avoid their use. Widening or upgrading existing Route 2 would avoid impacts to these areas, but would affect historic resources along Route 2, as well as a portion of the Assekonk Swamp WMA. The Route 2A Bypass would require new right-of-way affecting 4 potentially eligible historic properties in Preston.

Alternative F would require the acquisition of all or part of 14 listed or potentially-eligible historic properties, primarily located along the Route 2 Bypass. Avoidance of these properties may be feasible with revision of the bypass concepts.

The Route 32 Upgrade would require construction within the existing roadway adjacent to historic properties and the Uncasville Mill Area, but would not result in a use or constructive use of these properties.

The Route 164 Upgrade would require construction within the existing roadway in the Preston City Historic District, but would require the acquisition of new right-of-way, and would not change the character of the roadway or the district (would not constitute a constructive use)

5.7 Summary

Impacts to cultural resources will be evaluated by the Connecticut and, if appropriate, Rhode Island SHPO for the proposed action during review of the Final EIS, which will include refinement of the planning concept to further avoid and minimize unavoidable impacts to historic and archaeological resources. The FHWA and SHPO will make a determination of effect and recommend impact avoidance and mitigation techniques. Following the determination, FHWA and SHPO will prepare a Memorandum of Agreement (MOA), with ConnDOT and Advisory Council for Historic Preservation concurrence.

Alternatives B and C would require the use of the most Section 4(f) properties, with adverse effects to 2 parks, 1 refuge, 4 historic districts, and 38 historic properties. Alternative B would also affect 2 known archaeological sites that have not yet been determined by SHPO to be a 4(f) resource. Constructive use of the Westerly Downtown Historic District may also occur with the monorail option of these alternatives. Some impacts may be minimized or avoided by modifications to the design concepts, however, the alignment criteria required for the transitway preclude alternative alignments that would avoid use of 4(f) resources.

Each of the other alternatives would require the use of public parks or wildlife refuges, historic districts or potentially-eligible historic districts, historic properties, and known archaeological sites, to varying degrees.

Alternative F appears to have the least effect on Section 4(f) resources. This alternative would require new right-of-way purchases from 2 refuges (without impairing their function), 2 historic districts (potentially eligible), 14 historic properties, and 1 known archaeological site (not yet reviewed by SHPO to determine if this is a 4(f) resource). Prior to starting construction of the preferred alternative, further archaeological investigations would be done within the right-of-way.

The final Section 4(f) Evaluation will be prepared in conjunction with the Final EIS, and will include a more detailed evaluation of the 4(f) resources associated with the preferred alternative. That Evaluation will include more detailed plans showing the boundaries of 4(f) properties and conceptual right-of-way limits of the preferred alternative. The detailed evaluation will explain more specifically the problems associated with avoiding each 4(f) resource and will specifically discuss the measures proposed to minimize harm to each 4(f) resource.

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