

Improvements to the U.S. Route 6 / Route 10 Interchange

City of Providence
Providence County, Rhode Island



Record
of Decision

June 2006



Rhode Island
Department of Transportation



U.S. Department of Transportation
Federal Highway Administration

RECORD OF DECISION

Improvements To The U.S. Route 6/R.I. Route 10 Interchange Providence, Rhode Island

FHWA-RI-EIS-05-01-F

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1.0 Project Overview

This Record of Decision (ROD) explains the reasons for the decision for Improvements to the U.S. Route 6/R.I. Route 10 Interchange (the Interchange) and the mitigation measures that will be incorporated into the Interchange as described below. The ROD is issued under the requirements of 40 CFR 1505.2 and 23 CFR 771.127.

The Federal Highway Administration (FHWA) and the Rhode Island Department of Transportation (RIDOT) prepared the Draft Environmental Impact Statement (DEIS) and Final Environmental Impact Statement (FEIS) jointly for the Interchange. Since the technical evaluations in the DEIS and FEIS remain valid, they are incorporated by reference.

The FEIS presented evaluations studying 4 different alternatives for RIDOT to maintain, rehabilitate or replace the interchange. The project study area includes U.S. Route 6 (Route 6) from approximately 1,000 feet west of the Hartford Avenue interchange easterly to Atwells Avenue, and R.I. Route 10 (Route 10) from the Cranston Viaduct to Route 6. (See figure 1-1, "Project Region Map.") Within the project study area, Route 6 and Route 10 are major expressways with two or more lanes in each direction providing access between southern and western Rhode Island and downtown Providence. Route 6 also serves as a transportation corridor from Connecticut and western Rhode Island to southeastern Massachusetts and Cape Cod, via I-95 and I-195. Route 10 also is used as an alternative to Interstate Route 95 during peak travel times. The study area environment is highly urbanized with mixed land uses.

The needs for the project are as follows:

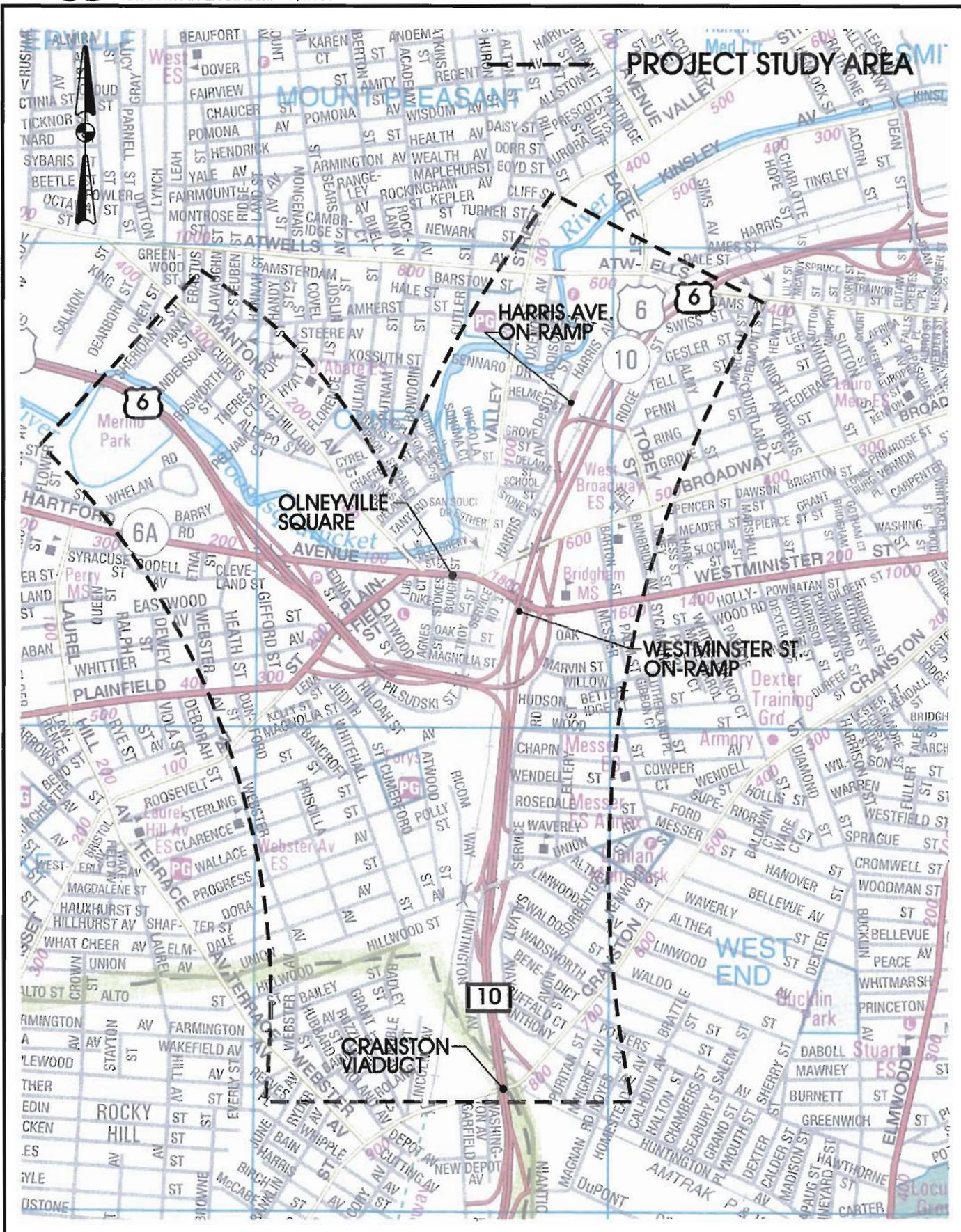
- Nine of the 11 bridges are approximately 50 years old and in deteriorated states, nearing the end of their useful lives.
- Inadequate lane capacity along with significant geometric deficiencies, such as substandard weaves and ramp connections, result in increased congestion, driver delays, and reduced air quality.
- Currently, the motorist has no option to proceed westbound on Route 6 from northbound Route 10 other than through local streets, leading to reduced efficiency of the interchange. This also leads to increased traffic congestion in the surrounding communities.

The following objectives were developed to satisfy the project needs:

- Address the deterioration of the existing bridges.
- Reduce congestion within the Interchange.
- Reduce interchange-related traffic congestion in the adjacent communities.

- Improve the north-to-west travel movement.

Alternative 1: No Build, Alternative 2: Rehabilitate the Existing Bridges, and Alternative 3: Reconstruct the Existing Bridges, and Alternative 4, Reconstruct the Interchange on New Alignment, were considered and fully described in the FEIS. The FEIS identified Alternative 4 as the preferred alternative.



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PROJECT REGION MAP
IMPROVEMENTS TO US ROUTE 6/ROUTE 10 INTERCHANGE
 SOURCE: USGS QUADRANGLE
 SCALE: NOT TO SCALE

FIGURE NO.
1-1
PAGE
3

2.0 Decision and Summary of Findings

Alternative 4, Reconstruct the Interchange on New Alignment, has been selected for final design and construction. This alternative demonstrates the strongest ability to address the needs of the project with the least cumulative impact to the environment. This alternative has the best long-range impacts (economic, transportation, energy use, long-term productivity, and commitment of resources) due to improved traffic operations. Motorists would benefit from the elimination of problem weave areas and ramp terminals on Route 6 and Route 10, improved traffic flow in Olneyville, and the addition of a ramp for northbound Route 10 motorists to travel to westbound Route 6. Water quality would be improved since roadway runoff would be removed from the combined sewer system, thereby reducing the amount of untreated water from entering the Woonasquatucket River.

The alternative selected is the least environmentally damaging alternative that meets the project purpose and need.

3.0 Major Factors Influencing the Selected Alternative

The reasons for selecting Alternative 4 include the following: new structures will provide a much longer service life; construction on a new alignment will allow the correction of geometric deficiencies that cause congestion and incurs the least impact to traffic during construction; it provides the missing northbound Route 10 to westbound Route 6 movement, and; it provides the greatest air quality benefit because of the reduction of congestion. While the some of other adverse environmental impacts of this alternative are somewhat greater than those of the other alternatives, they can and will be mitigated.

In conclusion, the positive benefits of this alternative substantially outweigh its adverse impacts, all of which can be mitigated. Therefore, Alternative 4, Reconstruct the Interchange on New Alignment, the recommended alternative in the FEIS, is selected in this ROD.

4.0 Alternatives Considered

Four alternatives were identified and evaluated in detail in the DEIS and FEIS and are described below. To compare impacts of the alternatives, a ranking system of low, medium, and high was used. A low ranking indicated that there would be little or no impact on the environment and no avoidance or mitigation would be considered necessary. A medium ranking indicated that there would be some impact on the environment and avoidance or mitigation may be necessary. A high ranking indicated that there would be impacts on the environment and avoidance or mitigation should be discussed if the alternative is considered.

4.1 Alternative 1: No-Build

This alternative would include routine maintenance of the bridge infrastructure to provide continued operation of the Interchange roadways. Construction of a new Route 10 northbound to Route 6 westbound movement is not included. Repairs would be completed only as needed to address failing structural or functional elements. These repairs would generally include long-term shoring of beams, concrete upgrading, roadway expansion joint replacement, and under-deck shielding to catch falling concrete. Repairs would not address the lack of earthquake design requirements, inadequate cross slope of the roadways, substandard widths, or ever-increasing truck weights. Total replacement of the Interchange bridges would not be addressed.

This alternative does not meet the project's purpose and need of identifying a transportation improvement that will address the deterioration of the existing bridges, reduce congestion within the Interchange, reduce Interchange-related traffic congestion in the adjacent communities, and improve the north-to-west travel movement.

Future shoring and repairs to the existing bridges would cause traffic delays and would not address the structural deficiencies.

Transportation, noise, energy use, and long-term productivity impacts would be high; social, economic, water resources, and commitment of resources impacts would be medium, since congestion within the Interchange would not be reduced, Interchange-related congestion in the surrounding communities would not be reduced, and the north-to west travel movement would not be improved.

Land use and zoning, air quality, wetlands, wildlife, floodplains, threatened or endangered species, cultural resources, hazardous materials, and visual impacts would be low.

4.2 Alternative 2: Rehabilitate the Existing Bridges

This alternative would include repair and/or replacement of the major structural components of the infrastructure for the bridges. The scope of these tasks includes the repair of steel beams and the replacement of pavement and underlying waterproof membrane, concrete deck, paint, beam bearing devices, concrete pier caps and columns (where repair is deemed inappropriate), and vehicular railings.

This alternative does not meet the project's purpose and need of identifying a transportation improvement that will reduce congestion within the Interchange, reduce interchange-related traffic congestion in the adjacent communities, and improve the north-to-west travel movement.

Rehabilitation of the bridges would only temporarily address the structural deficiencies, and future repairs would eventually be required, which would result in traffic delays.

Transportation, noise, energy use, and long-term productivity impacts would be high; social, economic, water resources, and commitment of resources impacts would be medium, since congestion within the Interchange would not be reduced; Interchange-related congestion in the surrounding communities would not be reduced, and the north-to west travel movement would not be improved.

Land use and zoning, air quality, wetlands, wildlife, floodplains, threatened or endangered species, cultural resources, hazardous materials, and visual impacts would be low.

During construction, social, economic, transportation, energy use, and short-term productivity impacts would be high due to traffic delays caused by lane closures that would limit access to the surrounding areas.

4.3 Alternative 3: Reconstruct the Existing Bridges

This alternative would include full replacement of the Interchange bridges while maintaining the present alignment of the roadways. New foundations would be constructed between the existing ones, so that removal of the existing footings and piles would not be required.

This alternative does not meet the project's purpose and need of identifying a transportation improvement that will reduce congestion within the Interchange, reduce interchange-related traffic congestion in the adjacent communities, and improve the north-to-west travel movement.

Transportation, noise, energy use, and long-term productivity impacts would be high; social, economic, water resources, and commitment of resources impacts would be medium, since congestion within the Interchange would not be reduced; Interchange-related congestion in the surrounding communities would not be reduced, and the north-to west travel movement would not be improved.

Land use and zoning, air quality, wetlands, wildlife, floodplains, threatened or endangered species, cultural resources, hazardous materials, and visual impacts would be low.

During construction, social, economic, transportation, energy use, and short-term productivity impacts would be high as a result of traffic delays caused by lane closures that would limit access to the surrounding areas. Alternative 3 impacts would be higher than for Alternative 2 due to the longer construction time.

4.4 Alternative 4: Reconstruct the Interchange on New Alignment

This alternative would include full replacement of the Interchange bridges in such a way that the highway alignment and other deficiencies, discussed in Section 1.2.4 of the DEIS are resolved. This would mean that portions of the Interchange would be relocated for

this purpose. Other sections of the Interchange, such as the area between Broadway and Westminster Streets, would be replaced on the current alignment. Construction of a new northbound Route 10 to westbound Route 6 movement (Ramp NW) is included in this alternative. This alternative is shown on figure 4-1, "Alternative 4 Plan."

Land use and zoning, economic, transportation, air quality, water resources, wetland, wildlife, floodplain, threatened or endangered species, cultural resources, hazardous materials, energy use, long-term productivity, and commitment of resources impacts would be low since congestion within the Interchange would be reduced; Interchange-related congestion in the surrounding communities would be reduced, and north-to west travel movement would be improved.

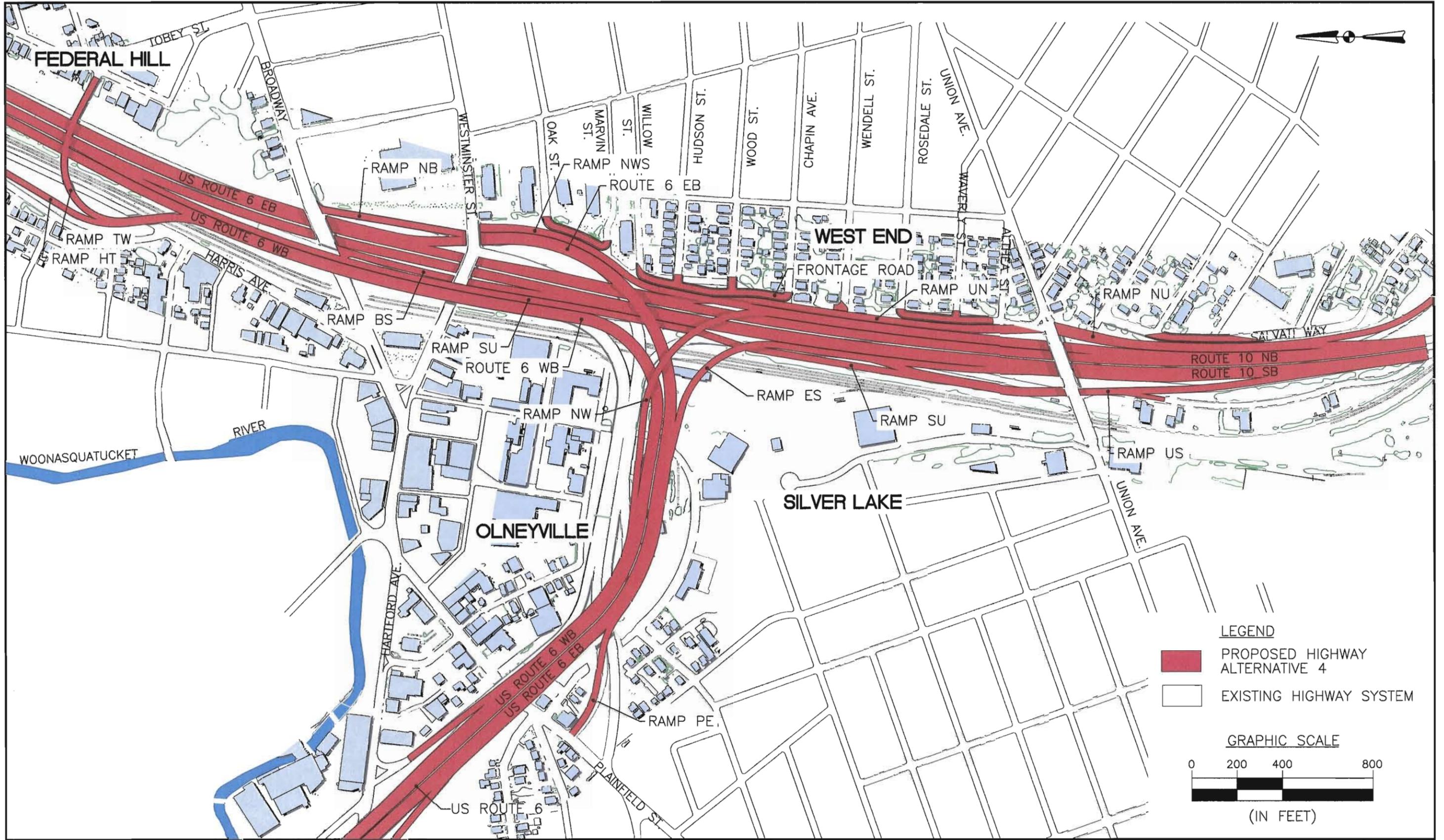
The DEIS indicated that relocation impacts would be high, since seven residential (43 units) and four commercial acquisitions would be required. The DEIS also indicated that social impacts would be high since the relocations would affect a low-income elderly and minority community (West End). Because of displacement impacts identified in the DEIS, the FEIS showed a reconfiguration of the frontage road in the West End, where only one residential (1 unit) acquisition would be required (the four commercial acquisitions would still be required). Therefore, relocation and the resulting social impacts would be medium for this alternative.

Visual impacts to the West End neighborhood would be high with the addition of the northwest flyover ramp, which would be visible from abutters.

Noise impacts would be high with this alternative. Existing noise levels are above FHWA noise abatement criteria. Cost effective and locally desired noise barriers would be considered during final design under this alternative.

During construction, land use and zoning, economic, transportation, energy use, and short-term productivity impacts would be low, since the existing number of travel lanes would remain open during construction.

Also during construction, hazardous materials mitigation would be high due to the excavation required for the roadways, drainage structures and pipes, wall foundations, and bridge substructures in areas of anticipated contamination.



ALTERNATIVE 4 PLAN
IMPROVEMENTS TO US ROUTE 6/ROUTE 10 INTERCHANGE

5.0 Section 4(f) Evaluation

Section 4(f) of the Department of Transportation Act of 1966 stipulates that prior to taking any action that uses land from a public park, recreation area, wildlife or waterfowl refuge, or from a historic property listed in or eligible for the National Register of Historic Places, the agency proposing the action must determine that there is no feasible and prudent alternative to the use of the property and that the proposed action includes all possible planning to minimize harm to the property resulting from such use.

The Route 6/10 Interchange study area contains a number of Section 4(f) properties, but the selected alternative does not use any of them. No listed or eligible archaeological resources are located in the study area and the potential for locating intact archaeological properties within the study area is considered low.

None of the project's alternatives are expected to directly impact any existing historic property, public park or conservation area. If during final design, any impact on Section 4(f) properties becomes apparent, the consultation process with the State Historic Preservation Officer (SHPO), the Narragansett Indian Tribal Historic Preservation Officer (NITHPO), and the City of Providence will continue as appropriate. Should this become necessary, measures to avoid or mitigate any harm to any significant properties will be investigated during the Section 106 consultation process. Stipulations to mitigate impacts will be incorporated into any required Memorandum of Agreement (MOA) among FHWA, RIDOT, and Rhode Island State Historic Preservation Officer (RISHPO), with concurrence from the Advisory Council on Historic Preservation.

6.0 Summary of Measures to Minimize Harm

The Federal Highway Administration will provide that all practical measures to avoid or minimize adverse environmental impact will be implemented.

The FHWA and RIDOT hereby commit to the following measures resulting from environmental mitigation and agency and public comments:

Relocation Impacts: Relocation assistance functions will be completed in strict conformance with the Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended. If necessary, resources outside RIDOT will be accessed to make certain that there is a positive transition for all who are displaced. (Refer to FEIS Section 4.3). Relocation resources would be available to all residential and business property owners and occupants without discrimination. The City of Providence will be consulted with regarding the resolution of surplus land resulting from the construction of Alternative 4.

Impacts to Pedestrians and Bicyclists: Completion of the connection between the Washington Secondary Bike Path and the Woonasquatucket River Bikeway will be

investigated during final design. The pedestrian, transit user, and on-street cycling environment will be improved, where feasible.

Noise Impacts: Post construction noise impacts have already been explored and a detailed report was submitted to the RIDOT and FHWA and described in the EIS. In the report, six locations were identified that would be appropriate locations to mitigate those impacts, probably through construction of noise barriers. The mitigation will be accomplished during final design according to Department policy and in consultation with the City of Providence and affected neighborhoods. (For noise abatement during construction, refer to the Construction Impacts section below.)

Visual Impacts: Landscaping and architectural treatments will be provided for the entire interchange, including plantings to buffer the West End neighborhood and architectural treatments for the new northbound Route 10 to westbound Route 6 flyover ramp. The frontage road will be designed in the manner of a city street with trees, sidewalks, and fencing to shield the adjacent neighborhood, if feasible. The mitigation will be accomplished during final design and in consultation with the City of Providence and affected neighborhoods.

Utility Impacts: In order to mitigate impacts to utilities, a maintenance of utilities plan will be prepared during final design and relevant specifications will be included in all project construction contracts. Also, access options to the Route 10 interceptor will be considered.

Water Quality Impacts: In order to comply with State anti-degradation policies and water quality regulations, Best Management Practices will be included in the stormwater design. Additional runoff generated by the increased impervious area will be treated to remove 90% of the total suspended solids using swirl separators, or similar mitigation measures.

Transportation Impacts: The existing interchange currently has at least three closed circuit television surveillance cameras in the project area that monitor, assess, and respond to roadway emergencies. Preservation and potential enhancements to this existing traffic reporting system will be investigated during final design.

Coordination with RIPTA to provide the best possible service will be performed during final design.

Construction Impacts: Noise abatement measures will be investigated for construction activities, including regulating the hours of construction, equipping the machinery with noise abatement devices, and establishing limits on certain construction vehicles, equipment, or activities during the evening, weekends, or holidays.

Air quality measures will be implemented for construction activities, including minimizing dust by stabilizing exposed earth as soon as possible. Also, emission reduction measures for construction equipment will be investigated and, where

applicable, will be included in the construction contract documents, including retrofitting construction vehicles, restricting the idling of diesel vehicles, establishment of truck-staging zones for diesel-powered vehicles, and ultra-low sulfur diesel fuel.

Disruption to traffic flow will be minimized by development of maintenance and protection of traffic control plans (MPT Plans) during final design. The goal of the MPT Plans is to safely route traffic through or around construction areas at controlled speeds.

Coordination with RIPTA to provide the best possible service during construction will be performed during final design.

Cost and Finance: The cost of the project is a consideration in the evaluation and selection of the preferred alternative. The EIS documents many benefits of Alternative 4 that compensate for the cost. Construction spending for the selected alternative will have an influence upon the funding of other transportation projects throughout the State. The State's transportation priorities are established in the Transportation Improvement Program (TIP), which is adopted by the Rhode Island State Planning Council acting as the Metropolitan Planning Organization (MPO) through an extensive public involvement process. Federal law requires that the TIP be "financially constrained" and demonstrate that adequate funding is available to complete the projects that are programmed. RIDOT will provide a planning level cost range to the State Planning Council for inclusion in the long range Transportation Plan and TIP so that the design phase may be programmed. In addition, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) requires that recipients of funds for projects with an estimated cost in excess of \$100 million prepare an annual financial plan for the project. Therefore, RIDOT will submit a financial plan for the project for FHWA review and approval prior to authorization of Federal-aid funds for construction.

7.0 Monitoring or Enforcement Program of the Mitigation Measures

FHWA's Rhode Island Division Office will monitor further project development of the selected alternative through their administration of the Federal-Aid Highway Program. This monitoring will ensure that all practicable mitigation measures, as summarized above and as described in Chapter 4 of the FEIS, will be included in the final project design. FHWA staff will also perform periodic inspections, as required, during the construction phase to ensure that these measures are implemented and constructed in accordance with plans and specifications.

To facilitate effective monitoring, a system will be developed to enable FHWA to comprehensively track the fulfillment of project-related mitigation and enhancement commitments. A detailed list of all commitments made in the FEIS and the ROD will be prepared. Each commitment shall be keyed to the appropriate design contract, as applicable, to ensure its implementation. RIDOT will report on the status of each commitment when the preliminary design and Plans, Specifications, and Estimates (PS&E) documents are submitted to FHWA. A commitment database will be developed for use by RIDOT and FHWA to track the assignment and status of each commitment.

The commitment database shall indicate positional responsibility for each of the implementation commitments, such as the project engineer, for each of these design sections.

In addition to the above, RIDOT will monitor and enforce the required project provisions in the following manner:

- RIDOT personnel will review the plans and specifications at every stage of the project development. Those reviews will involve personnel from several disciplines, including the design engineering, environmental engineering, materials construction, and research, development, and technology sections.
- RIDOT staff are presently, and will continue to be, involved in regular communications with the state and federal regulatory agencies regarding environmental protection and mitigation features of the project.
- RIDOT staff will provide plans and specifications at every stage of development to the municipalities in which the project is located to ensure that local concerns are met.
- As the various sections of the project are advanced to construction, RIDOT will establish a field office on site staffed by a Resident Engineer and construction inspectors. Site visits will also be made on a regular basis by staff from the wetlands, landscape architecture, and historical preservation disciplines to monitor the implementation of the contract provisions.

8.0 Responses to Comments on the FEIS

Comments on the Environmental Impact Statement were received from Federal and State Agencies, the local government, affected landowners, and neighborhood groups. The following is a compilation of comments and their responses:

U.S. Army Corps of Engineers

- *Under 4.9 it states, “wetlands in the project area are shown in Figure 3-20” where in fact it is “Figure 3-19.” Who made the call on the wetlands? The Corps is the only one that can make this call for 404 permit actions. If the consultant made this call they must have made a wetlands delineation. Could I please have the documentation they based this call on? They might be correct, but we need to make this call.*

This project is in a highly urbanized area. Wetland locations within in the project study area were obtained from the Rhode Island GIS database and verified through on-site reviews. Within the alignment for the preferred alternative, wetlands have only been identified along the Woonasquatucket River while all other areas are fully developed. Wetlands will be field located and flagged during final design by a

wetland biologist, and wetland edges will be surveyed and submitted to RIDEM for verification. This project is anticipated to meet the requirements for Section 404/Section 10 review through the ACOE Rhode Island Programmatic General Permit process.

- *Under 4.10.1 it stated, “With the exception of the Woonasquatucket River, there are no water bodies within the project area. The only direct activity in the River will be the placement of stone riprap to prevent erosion discharge velocities at the proposed outfall associated with Alternative 4.” You need to identify this impact area. Is it waterward of the ordinary high water mark or within Corps regulated wetlands?*

In the Final it stated that the changes to wetland and water body modifications for Alternative 4 have not changed, agree on selection of Alternative 4. However, if that is the case, I will need to see the square footage of each impact area and limits of Corps jurisdiction. If the areas are regulated by the Corps and a Corps permit is needed, I will need to get our Archaeologist involved in my review.

The only temporary direct wetland impacts anticipated under Alternative 4 are associated with the installation of the new stormwater outfalls. The proposed outfalls will terminate flush with existing river walls or at the edge of the river channel. The only permanent wetland impacts within ACOE regulated areas will be related to stormwater and the placement of riprap within the river to prevent scouring. The riprap would be placed flush with the bottom of the river. An application for a Section 401/State Water Quality Certificate will be submitted to the Rhode Island Department of Environmental Management. Again, this project is anticipated to meet the requirements for Section 404/Section 10 review through the ACOE Rhode Island Programmatic General Permit process.

The Rhode Island Department of Administration - Statewide Planning Program

- *Rhode Island Statewide Planning Program comments have been addressed in the Final EIS Response to Comments Section to our satisfaction, and we look forward to working with you in the final planning and design where remaining bicycle, pedestrian, noise and land use issues will be addressed for this much needed transportation improvement project.*

The Department also looks forward to working with you in the final planning and design for this project.

Narragansett Bay Commission

- *It is our understanding that the storm drainage to be generated under the recommended alternative (Alternative 4) will be directed to new storm drains and that none of this storm water will enter the NBC combined sewers.*

Currently, stormwater from the existing Route 6/Route 10 interchange is carried by four separate outfall systems, two of which are combined sewers. It is the intention of the Department to construct two separate storm drains that would collect runoff from the project area that currently contributes to the combined sewer system as well as any additional runoff from increased impervious areas. There will not be any connections made to the combined sewer system.

- *The draft EIS also states that utility relocations/conflicts have been identified and will be addressed during design. I just want to reiterate our position that whatever means are chosen to mitigate these impacts, it is imperative that access to our facilities through readily accessible manholes be maintained. These manholes should be located so that access by NBC for maintenance of its facilities will not impact traffic flow or require lane closures.*

Access options to the Route 10 interceptor will be fully investigated during final design. The Department will coordinate with your office to determine the best possible locations for the access manholes.

City of Providence Department of Planning and Development

- *We remain concerned about the proposed acquisition of four commercial and manufacturing properties. There is little available land in the city for relocation of these businesses, and we would object to any relocation outside of the City of Providence. We understand, however, that the proposed alignment has as little impact as possible on the property in the vicinity of Route 6, while still achieving the objectives of the project. We urge RIDOT to work with this department to find appropriate locations in the city to relocate these businesses, and when the project is complete, to create new parcels suitable for business uses on surplus land.*

The Department is also concerned about the proposed acquisition of the commercial and manufacturing properties and will work with you to find appropriate relocations in the City, if feasible, and to create new parcels suitable for businesses on surplus land, if available.

- *A connection between the Northwest Bike Trail/Woonasquatucket River Bikeway and the Washington Secondary Bike Path should be created as part of this project.*

A connection between the Washington Secondary Bike Path and the Woonasquatucket River Bikeway will be investigated as part of this project.

- *Any reconfiguration of the interchange must improve pedestrian movements wherever possible, especially those that pass under the highway at Plainfield St., Westminster St, and Broadway.*

The reconfiguration of the interchange will include pedestrian movements wherever possible, especially those that pass under the highway at Plainfield Street, Westminster Street, and Broadway.

- *The conclusion that noise impacts would be high with Alternative 4 indicates a need to explore methods of noise abatement, including barriers and landscaping.*

Once the final layout for Alternative 4 is established, noise abatement measures will be explored during Final Design according to Department policy.

- *The negative visual impacts from the construction of Alternative 4 should be mitigated through landscaping and creative design. We urge that the sections of frontage road buffering the highway from the West End neighborhood be built in the manner of a city street. There should be a clear signal to motorists that they have entered a neighborhood, and that they should behave appropriately. The street should not be unnecessarily wide, and there should be ample sidewalks and street trees. Dwellings adjacent to the frontage road should be supplied with fencing to buffer them from the interchange. There must be an extensive landscaping plan for the project. We also advocate for a pleasing and unifying urban design for the entire project.*

The frontage road will be designed in the manner of a city street with a neighborhood atmosphere. Sidewalks, and landscaping will be provided, where feasible. Fencing will be provided for dwellings that are adjacent to the frontage road to buffer residents from the interchange, if possible.

Landscaping and architectural treatments shall be provided for the entire interchange through a unified urban design to improve the visual atmosphere of the project area.

West Broadway Neighborhood Association

- *We urgently request that RIDOT use this project as an opportunity to reconnect and enhance the links to Downcity, Olneyville and the area North of the Rte 6/10 connector, including the reconnection of DePasquale Avenue to Acorn Street.*

The reconnection of DePasquale and Acorn Street is beyond the scope of this project.

- *Provide visual and noise barriers including significant plantings of native deciduous and evergreen trees and shrubs along the service road, Route 10, and the median. Transform Route 10 to a parkway with extensive naturalistic plantings of trees and shrubs. Provide additional analysis and design to make the 30-foot high flyover attractive and unique rather than a menacing visual blight.*

Landscaping and architectural treatments shall be provided for the entire interchange through a unified urban design to improve the visual atmosphere of the project area. Included would be architectural treatments to the 30-foot high fly-over ramp to make it visually attractive and fit in with the surrounding environment. Landscaping improvements would not include the median of Route 10 north of the Cranston viaduct, however, since there would not be space available.

Once the final layout for Alternative 4 is established, noise abatement measures will be explored during Final Design according to Department policy.

- *We urge you to maintain the connectedness of the service road from Oak Street to Marvin Street to Willow Street to Hudson Street to Wood street to Chapin Avenue, and from Wendell to Rosedale to Waverly to Althea to preserve a pedestrian friendly urban street pattern. This would not require property acquisition. We do not agree that breaking up the service road into three pieces is a wise action for a historic, urban neighborhood – through traffic is always preferable. As recommended by the City, make Service Road #1 function more like a City street, making it narrower with two-way traffic, sidewalks, street trees, painted markings, bike path, street lights, etc.*

Originally, the design of Alternative 4 showed a continuous frontage road that would connect the local neighborhood streets on the east side of Route 10 between Union Avenue and Oak Street. Due to significant public opposition to this design, the frontage road was reconfigured in order to reduce residential displacements in the West End neighborhood. The connection was removed from Marvin Street to Willow Street to eliminate residential acquisitions at Marvin Gardens. The connection was removed from Wendell Street to Rosedale Street to eliminate a residential acquisition on Wendell Street. The Department intends to study the configuration of the frontage road in further detail during final design to see if improvements could be made without necessitating any additional displacements.

- *We are concerned about the potential impacts of changing the on and off ramps and transferring of the on-ramp from Westminster Street to Broadway. We request that you provide additional analysis of this option including analysis of the possibility of allowing a left-turn from the Broadway off-ramp towards Olneyville. We are particularly concerned that traffic trying to get to Olneyville will increase congestion on Broadway to Barton and down Westminster unless something is done to balance traffic on Broadway to Olneyville.*

The reason for not allowing the left onto Broadway from the eastbound Route 6 off-ramp is that the receiving lane for those lefts will be consistently blocked by the queue of the Broadway westbound lefts at the new Route 10 southbound on-ramp. Our analysis indicates that this queue will back up to and beyond the eastbound Route 6 off-ramp consistently throughout the PM Peak period and occasionally throughout the AM Peak Period. Allowing lefts to conflict with this queue will likely cause a significant congestion and safety problem as queues backup on the eastbound Route 6 off-ramp. It is projected in 2010 that the left turn traffic volumes from eastbound Route 6 to Broadway would be 124 vehicles in the AM peak hour and 108 in the PM Peak Hour (without the left turn restriction). With the currently proposed left turn restriction, 62 vehicles (AM peak hour) and 54 vehicles (PM peak hour) would be added to eastbound Broadway east of the eastbound Route 6 off-ramp, continuing south on Barton Street, and then west on Westminster Street into Olneyville. It is projected that the remaining motorists would choose to exit off eastbound Route 6 at Hartford Avenue and continue into Olneyville. As has been discussed previously at public hearings, there are many project improvements that are proposed that will reduce traffic on Westminster Street.

- *To address the unsafe and unappealing pedestrian and cycling environment that has been created by the off-ramps from Route 10 on Westminster and Broadway and from I-95 from Atwells through Broad Street, we request that:*
 - *Analysis and design of sidewalk, crosswalk, bike lanes, and aesthetic improvements around the on and off-ramps as well as on the Route 10 and Route 95 Broadway and Westminster Street bridges.*
 - *Install a bike path from the Route 10 at Park Avenue along the eastern embankment of Route 10 all the way to downtown Providence.*

The reconfiguration of the interchange will include improvements for pedestrian and cycling improvements wherever possible. A connection between the Washington Secondary Bike Path and the Woonasquatucket River Bikeway will be investigated as part of this project, including studying the possibility of providing a bike path along a portion of Route 10.

- *We also ask that traffic calming techniques and signage be installed to make clear to travelers exiting Route 10 and coming onto Broadway that they are no longer on the highway but instead on a historic boulevard that requires a slower speed (include signage to alert that truck traffic is not allowed and speed tables on Broadway to discourage Route 10 travelers from using Broadway to get downtown).*

The Department will work with the City of Providence during final design to provide proper signing on Broadway and Westminster Street regarding truck traffic and speed limits.

- *Improve the timing of the lights on Broadway and Westminster Street and stripe the streets with road markings and crosswalks as a part of the scope of this project.*

As outlined in the Draft Environmental Impact Statement, the design for Alternative 4 will incorporate the traffic signals at intersections along Broadway, Westminster Street, Plainfield Street and Hartford Avenue into one coordinated signal system. In addition, roadway striping and crosswalks will be provided for Westminster Street and Broadway.

Rhode Island Department of Environmental Management

- *The Wetlands Permitting Program would only urge DOT to use care in locating outfalls along the Woonasquatucket River, but in general, especially considering the water quality standards DOT is expecting to meet, DEM anticipates minimal concerns.*

The Department intends to use care in determining the specific locations of the proposed outfalls along the Woonasquatucket River.

- *RIDOT should also be cognizant that any contamination stemming from UST-related sources will have to be addressed under the UST Regulations. Further, soils, which have been characterized as hazardous waste must meet the requirements of the RCRA program.*

The Department will be cognizant that any contamination stemming from Underground Storage Tank (UST)-related sources would be addressed under the UST Regulations and that soils that have been characterized as hazardous waste will meet the requirements of the Resource Conservation and Recovery Act program.

- *At the time the Office of Water Resources Water Quality Certification (WQC) Program met with RIDOT, they were informed that the Woonasquatucket was impaired and the parameters for impairment were presented to them. The RIDOT*

was made aware that they would have to address and provide treatment for all of these parameters (in accordance with Rule 9 of the water quality regulations that directs that “activities shall not further degrade low quality water”), as well as Total Suspended Solids (TSS). Section 4 of this DEIS indicates that they are aware of the specific parameters for which the Woonasquatucket is impaired and table 4-9 and 4-10 addresses the specific additional pounds of some of the parameters for which the Woonasquatucket is impaired. Implementation of Alternative 4 results in significant across-the-board increases in all pollutants from all outfalls except CSO 1. Future submittals to DEM regarding this project must address: 1) How these increased loadings were calculated; 2) How the planned BMPs resulting in the required 90% TSS removal will also result in no net increases in the pollutants in Table 4-10 (as well as those for which the Woonasquatucket is impaired), and; 3) Whether the quantities are pre or post treatment.

The applicant must address how the project (the additional 10 acres of impervious area) will impact the other parameters for which the Woonasquatucket is impaired. These are: pathogens, dioxins, PCB's and mercury; Also, although not currently listed for dissolved oxygen and dissolved zinc, as a result of the TMDL, these will be added to the 2006 303(d) list. According to Rule 9, the applicant must demonstrate that the project will not result in further impairment, including biodiversity impacts from the above referenced parameters.

The calculations for the pollutant loadings identified in table 4-10 of the Draft Environmental Impact Statement (DEIS) are shown in the Final Environmental Impact Statement (FEIS) on pages 4-33 and 4-34. The quantities shown are for pretreatment. Future submittals to RIDEM will include information regarding how the planned Best Management Practices (BMP) are proposed to meet the 90% Total Suspended Solid (TSS) removal rate.

- *Page S.11 states that Alternative 4 will separate stormwater from the CSO system. This section infers that by separation of stormwater from the CSO system, that there will be a water quality improvement because there would be more capacity within the CSO system and there would be less of a frequency for overflows due to too much water (stormwater and sanitary discharges within the system). Page 4-70 states that primary impacts to water quality from Alternative 4 would be increased discharge of sanitary wastes to the river from CSO lines. Future correspondence to the department should provide further clarification of this. Also, if the project calls for the separation of stormwater from the CSO system, DOT must address how there would be an increase in sanitary wastes to the river from this project?*

Page 4-70 of the DEIS states that the primary impacts to water quality from Alternative 4 would be increased discharge of sanitary wastes to the river from combined sewer overflow lines. The intent of this statement was to identify water quality impacts resulting from the increased impervious areas if Best Management Practices (BMPs) were not used.

- *As a regulated entity under federal Phase II stormwater regulations, RIDOT has specific stormwater management requirements. This project proposes to increase the impervious surface and contribute additional pollutant loadings to an already impaired waterbody, but does not explain clearly how the existing and new stormwater will be treated prior to discharge. OWR is currently developing a Total Maximum Daily Load (TMDL) to address fecal coliform bacteria and dissolved Cu, Pb, and Zn impairments in the entire mainstem of the Woonasquatucket River. The Woonasquatucket River TMDL identifies water quality goals, necessary pollutant reductions to achieve these goals, the sources of pollution believed responsible for the pollution problems, and the necessary pollution control actions to achieve their required reductions and support the waterbody's designated uses. Stormwater runoff comprises a large and ubiquitous source of pollutants to the Woonasquatucket and as such, pollution control efforts should focus on BMPs that reduce both the volume of stormwater and pollutant load discharging to the river.*

In earlier comments on the DEIS, OWR had stated the need to achieve 90% TSS removal of the incremental increase in stormwater from the project site. According to the DEIS, Alternative 4 includes the construction of storm drains to replace the use of the NBC CSO1 and CSO3. The DEIS found infiltration and detention of stormwater to be infeasible due to insufficient space in the project area. The Woonasquatucket River TMDL, under development, will be calling for the retrofit of existing storm drains to reduce bacteria and metal loads to the maximum extent practicable. RIDEM recommends that RIDOT address this requirement as part of the upgrade to Route 6/Route 10 interchange. Because it has been determined within the DEIS that insufficient space is available within the project site, OWR recommends that RIDOT evaluate off-site locations to treat all stormwater generated from the project site (and not just the incremental increase in runoff) and that BMPs be designed to reduce bacteria and metals loads to the maximum extent practicable. Wherever possible, treatment of stormwater should focus on infiltration and/or detention in combination with structural end-of-pipe BMPs.

For the new storm drain at CSO3, as well as outfalls D2 and D4, specific BMPs must be identified. For each of these, the DEIS states that appropriate BMPs will be utilized to achieve 90% TSS reduction. The WQC Program is concerned about the use of end-of-pipe structures for water quality treatment, as they require a significant level of maintenance. If these structures are utilized, it is suggested that a maintenance agreement and/or contract be made part of the project. We are aware that FHWA does not provide funds for maintenance as part of their construction programs.

- *For any end-of-pipe structures proposed, a detailed maintenance schedule indicating the specific clean-out cycles specific to the flow rates and loading inputs associated with each structure, must be provided to the OWR. If these are not maintained, there will not be any TSS (or other pollutant) removal attained and Rule 9 of the water*

quality regulations will be violated within a very short time. And over the long run, the project will have become a serious detriment to the Woonasquatucket River.

It is the intention of the Department to treat all impervious areas using BMPs, including the evaluation of off-site locations and to treat all stormwater generated from the project site. The Department will work closely with RIDEM during final design to achieve this goal. Specific BMPs would be identified at this time, including any maintenance schedules and agreements that may be required.

U.S. Environmental Protection Agency – Region 1

- *The FEIS lacks a commitment to implement measures we recommended in our DEIS comments regarding emissions from diesel construction equipment: (1) retrofit of construction equipment; (2) restriction of idling diesel vehicles; (3) establishment of truck-staging zones for diesel powered vehicles; (4) use of transportation grade (0.05 weight percent sulfur) or better diesel fuel in all construction equipment; and (5) including Contact Specification Language for emission reduction measures. RIDOT's November 1, 2005 response to EPA's DEIS comments states:*

"...during final design, emission reduction measures for construction equipment shall be considered, which could be incorporated into the final contract documents."

While this is helpful, EPA New England would like to see a firm commitment in the Record of Decision to implementing the above emission reduction measures, rather than a statement to consider and possibly include language in the final contract document for the improvements to the U.S. Route 6/Route 10 Interchange Project. We believe implementation of these measures will further reduce the potential for impacts from the project to the at-risk population in the area described below. Similar language geared at reducing construction related emissions has been successfully incorporated in contract documents for transportation projects in the New England Region in Connecticut and Massachusetts.

The FEIS has responded to our requests to consider the cumulative effect of this project in conjunction with other planned construction projects in the area and expand the environmental justice analysis to include noise and air quality impacts. However, based on the high levels of asthma among the population in the project area that are detailed in 3.2.2, Social and Demographic Characteristics, we believe that more could be done to ameliorate the potential for air quality impacts to environmental justice communities during construction. As described in our air quality comments above, EPA continues to recommend a firm commitment to diesel-reduction measures during construction, including retrofitting construction vehicles and using ultra-low sulfur diesel fuel to mitigate impacts on the at-risk population in the area.

The anticipated construction for this project is not scheduled to begin until after 2006 when the new EPA regulations regarding diesel construction equipment are effective. Accordingly, retrofitting will not likely be necessary. Should circumstances change (delay in regulations, advancement of construction), the Department will consider appropriate retrofitting requirements. The results of the air quality analysis demonstrate that this project conforms to the Clean Air Act Amendments and the Rhode Island State Implementation Plan.

- *We do not believe that it is possible to conclude that the proposed pollution controls will effectively address the increase of pollutants associated with the preferred option. We continue to believe that FHWA/RIDOT should provide more information regarding its basis for selecting the 90% removal target. Moreover, we recommend that the ROD take into account and reflect the uncertainty regarding likely removal efficiencies of the proposed mitigation measures and we suggest that they be revised to conservatively reflect this uncertainty. Given that current storm water discharges from the existing roadway may not be receiving any treatment, even with lower estimates of pollutant removals, RIDOT may be able to demonstrate that there is a net reduction in the total loadings of pollutants of concern associated with its preferred alternative.*

The Department intends to work closely with the Rhode Island Department of Environmental Management (RIDEM) regarding the use of Best Management Practices to treat all impervious area, including the evaluation of off-site locations and to treat all stormwater generated from the project site. The Department will work closely with RIDEM during final design to achieve this goal. The 90% removal rate for total suspended solids was set by RIDEM as a requirement for this project.

Nine Eighty-Nine Corporation/National Lumber

- *After reading the Providence Journal Friday 12/30/05, that the D.O.T. sets January 17, 2006 dead line for residence comments on Route 6/10 in Providence, by Karen A. Davis Journal staff writer. We at National, and our commercial residents, have not been notified of this deadline for comments and we feel our commercial residents may have been discriminated against this deadline.*

The FEIS that was prepared for this project included a public comment period of not less than 30 days as prescribed by law. A request for comments was posted in the federal register as well as the Providence Journal on December 16, 2005.

Comments from the general public are welcome and are not restricted to residents within the project limits. Although the formal comment period ended on January 17, 2006, the Department welcomes comments received from the general public beyond that date.

- *As you know, we have commercial residence and they have jobs to lose with your plan to acquire our property. We feel that the road should stay on the existing alignment next to our property. The D.O.T. made some adjustment to residential property but made no effort to make any adjustment to commercial residents on our property.*

The D.O.T. has made adjustments to build new bridges and maintain traffic on routes while building new bridges, as D.O.T. did on Route 10 and Cranston Street viaduct. Your plan to spend \$251,000,000.00 on this project, as we stated before, can be used for other urgent needs of our taxpayers. The D.O.T. said that we need this property only not to impede traffic, while a parallel road is built next to the present existing alignment. This can be done without condemning our property and putting out commercial tenants.

The Department is sympathetic to your desire have a selected alternative that would not impact your property, but many other factors were considered before the final selection was made.

The residential property reductions referenced in your letter were made possible by a reconfiguration of the local frontage road in the West End. Several concerns were raised by the local community and housing agencies in terms of the impacts the project may have on low income residents and affordable housing. This frontage road would be broken into three separate roadways connecting the local streets. This solution is not possible for Route 6 that is adjacent to your property, since the freeway could not be broken up into separate segments and still function properly.

For the Route 10 and Cranston Viaduct project, Route 10 has a wide median and 10-foot outside shoulders, which allowed for more room to shift traffic during construction. Again, this is not possible for Route 6 that is adjacent to your property, since there is no existing median or adequate outside shoulder width available in order to shift traffic during construction. The local community and the motorists that use Route 6 support an alternative that allows much of the existing roadway to remain open during construction. This minimizes disruption to the local community in terms of alternate routes.

The Department is confident that the selected alignment is in the best interest of the general public including the motorists that use the roadway, the surrounding community and the taxpayers.

Since your property would be ultimately acquired for this project, every effort will be made to minimize any hardship to your business and you will be compensated to the fullest extent possible under the rules and regulations that must be followed for federally funded projects. This includes payment(s) for property acquired based on an appraisal and relocation assistance for businesses that occupy the property enabling them to move to a replacement site.

- *We ask that you reexamine the commercial acquisition of National Lumber to retain businesses and jobs in Providence.*

The Department is also concerned about the proposed acquisition of National Lumber and other commercial and manufacturing properties in the area. It is the intention of the Department to work with the City of Providence to find appropriate relocations in the City, if feasible, and to create new parcels suitable for businesses on surplus land, if available.

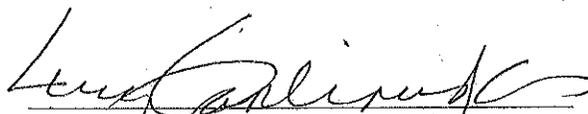
(Note: RIDOT provides advisory services to displaced businesses by offering replacement sites based on the business needs but cannot dictate where they relocate. The City may offer incentives or take other steps to entice businesses to stay in the City. The Department will work with the City and the displacee especially if it facilitates a successful relocation.)

9.0 Conclusion

Based on the analyses in the DEIS and FEIS and after careful consideration of the social, economic, and environmental factors and input from the public, it is our decision to adopt the recommended Alternative 4: Reconstruct the Interchange on New Alignment as the proposed action for this project.

Date:

June 9, 2006



Lucy Garliauskas, Division Administrator
Rhode Island Division
Federal Highway Administration