



Newington-Dover, 11238, Spaulding Turnpike/Little Bay Bridges Project Fact Sheet

Length of Project:	3.5 miles from the Exit 1 (Gosling Road) Interchange in Newington to toll plaza in Dover.			
Project Need:	<p>Reduce safety problems and improve transportation efficiency</p> <ul style="list-style-type: none"> • Limited capacity resulting in chronic congestion during peak hours– 2 lanes in each direction • Large number of interchanges - 5 interchanges in 2 ½ miles • Physical infrastructure deficiencies – substandard shoulders, substandard ramp geometry, substandard acceleration and deceleration lanes, and inadequate weave areas • Poor local and system connectivity • 1,263 crashes recorded over a seven-year period (1/97 – 12/03) 			
Project Description:	<p>Reconstruct and widen to 4 lanes in each direction (3 general purpose lanes & 1 auxiliary lane) between Exit 3 (Woodbury Ave) and Exit 6 (US 4 / Dover Point Road). Three lanes in each direction would extend south of Exit 3 & north of Exit 6.</p> <p>Consolidate & Reconfigure Interchanges</p> <ul style="list-style-type: none"> • Eliminate Exit 2 (Fox Run Road) • Reconstruct Exit 3 to provide full service interchange with northern access into Pease • Maintain Exit 4 ramps to Nimble Hill Road & Shattuck Way • Eliminate Exit 5 (Hilton Park / Wentworth Terrace) • Reconstruct Exit 6 to provide full service multi-directional interchange <p>Rehabilitate and Widen Little Bay Bridges</p> <p>Rehabilitate General Sullivan Bridge to six-ton capacity capable of accommodating pedestrians, bicyclists, and recreational activity, as well as emergency & maintenance vehicles from Newington end</p> <p>Construct Park and Ride Facilities at Exit 9 in Dover, Exit 12 or 13 in Rochester, and along US 4 in Lee or Durham</p> <p>Improve intercity, express, and local Bus services</p> <p>Support expansion of Downeaster service and promotion of employer-based measures through increased funding for the seacoast TMA, Seacoast Commuter Options</p>			
Traffic Data:	(Average Daily Traffic) @ Little Bay Bridges	1980	2003	2025
		30,000	70,650	94,300 (projected)
	<ul style="list-style-type: none"> • Between 1980 & 2003, traffic grew at an average annual rate of 3.7% (during the 80's traffic increased annually at 7 - 8%) • Between 1993 & 2003, traffic grew at an average annual rate of 2.9% • Between 1998 & 2003, traffic grew at an average annual rate of 2.1% • FEIS projects traffic to grow at an average annual rate of 1.3% from 2003 to 2025 			



<p>Character of Work:</p>	<p>Bridge work is proposed on 6 bridges (LBB, GSB, Woodbury Ave. over Turnpike, Turnpike over Shattuck Way, US 4 over Turnpike, & US 4 over Local Connector)</p> <ul style="list-style-type: none"> • LBB: 9-Span Structure 1589' long, widen & rehabilitate <ul style="list-style-type: none"> • Widen entirely to the west (existing 65' width, proposed 151' width) • Provide standard shoulder areas, along with four lanes in each direction • Maintain existing profile (suitable for 60 mph design criteria) • Maintain existing navigational opening (46.7' above MHW within center 100' of channel) • GSB: 9-span structure rehabilitate to 6-ton capacity. • Woodbury Ave over Turnpike: new 3-span curved bridge approximately 300' long, 80' wide • Turnpike over Shattuck Way: widen 48' long concrete bridge (existing 104' width, proposed 151') • US 4 over Turnpike: new 2-span bridge approximately 200' long, 82' wide • US 4 over Local Connector: new single span bridge approximately 50' long, average width 90' <p>Five new Traffic Signals are proposed (2 at Exit 3 Interchange & 3 at Exit 6 Interchange); one traffic signal will be eliminated (Boston Harbor/Spur/US 4).</p> <p>Retaining Walls total approximately 2,250 LF</p> <p>Sound Walls total approximately 15,600 LF</p> <p>Extensive detention basins and drainage facilities are proposed to minimize impacts to surface water quality. Pollutant Loading analysis is required to show no net increase in pollutant loading.</p>
<p>Environmental Impacts:</p>	
<p>Wetland:</p>	<p>20.4 acres of impact (Newington 11.9 acres, Dover 8.5 acres)</p>
<p>Project mitigation:</p>	<p>Restoration of approximately 3,100' of Railway Brook, preservation of approximately 200 to 300 acres in Newington and Dover, and incorporation of water quality appurtenances such as detention basins & grassed swales</p>
<p>Floodplain:</p>	<p>1.2 acres of 100-year floodplain (3.9 acre-feet) will be impacted</p>
<p>Historical:</p>	<p>5 historic properties will be impacted, 1 structure (barn) will need to be acquired</p>
<p>Archaeological:</p>	<p>Phase 1B investigations required</p>
<p>Hazardous Materials:</p>	<p>No direct impacts anticipated; however up to 20 properties with history of hazardous materials contamination will need further study to more accurately define the potential risk.</p>
<p>Noise:</p>	<p>Four Sound walls are proposed where warranted.</p>
<p>Secondary Impacts: (2005 – 2025)</p>	<ul style="list-style-type: none"> • Regional Economic Models, Inc. (REMI) used to estimate possible secondary growth. • No-Build population increase 92,841 • Build population increase 94,706 (difference of 1,865, 2% additional increase) • No-Build employment increase 50,822 • Build employment increase 52,719 (difference of 1,897, 4% additional increase)
<p>Right of Way:</p>	<ul style="list-style-type: none"> • 2 Business displacements • No complete residential property acquisitions • 94 Properties about the project with 31 properties potentially impacted • Approximately 30 acres of partial property acquisitions (2± in Newington, 1± in Dover, 27± Pease)



Cost (2007 dollars):		
Construction:	Highway: \$89.1 M Bridge: \$108.4 M *Other (Bus, Rail, P'n'R): \$11.8 M \$209.3 M	LBB ~ \$63M GSB ~\$26M Other Bridges ~\$19M
Right of Way:	Acquisitions & Mitigation:	\$ 9.8 M
Engineering:		\$ 17.1 M (expenditures to date: approx. \$3.6 M)
	TOTAL:	* \$ 236.2 M Total includes updated ROW acquisitions costs & engineering costs expended to date. * Includes Dover Park 'n Ride cost and Downeaster CMAQ upgrades
Environmental Process:	Phase 1: Scoping Report published March 2004 Phase 2: Rationale Report published January 2005 Phase 3: Draft Environmental Impact Statement distributed July 2006 Phase 4: Public Hearing held on September 21, 2006 Phase 5: Report of the Commissioner: signed – June 25, 2007 Final EIS distributed January 2008 FHWA Record of Decision: October 24, 2008 Public Participation: 17 ATF meetings, 31 Resource Agency meetings, 10 Public Officials & Informational meetings Project Web Site (www.newington-dover.com)	
Final Design Schedule:	Retain Final Design Consultant: NTP issued December 18, 2008 Final Design: 2008 through 2013	
Construction Schedule:	Advance Bus Alternatives & Park and Rides (2007 – 2011) Advertise LBB Widening Contract (2010) Advertise Exit 3 Interchange Contract (2012) Advertise Exit 4 Ramps & Mainline Contract (2012) Advertise LBB Rehabilitation & Bridge Approach Contract (2013) Advertise Soundwalls North of Exit 6 Contract (2013) pending added funding Advertise Exit 6 Interchange Contract (2013) pending added funding Advertise Dover Mainline Contract (2014) pending added funding Advertise GSB Rehabilitation Project (2014) pending added funding Construction Completion presently targeted 2016 Construction presently funded with 4 federal earmarks and Turnpike Capital Program funds (totaling \$150M). Additional revenue (\$84M) in the Turnpike Program will be required to finish the project's construction. Various financial bonding scenarios are being evaluated in the Turnpike Financial model to fully fund the entire project.	



Issues/Concerns:	
Secondary Growth:	<p>Concern expressed that development in the region would accelerate as a result of the infrastructure improvements</p> <p>An economic forecasting and policy analysis model (REMI) was used to evaluate the potential indirect impacts on 33 communities. The No-Build analysis revealed that the region would continue to grow at a slightly slower growth rate than that experienced by the communities since the 1970s. Proposed infrastructure improvements would have a small impact on population and employment growth in the region.</p>
Six vs Eight Lanes on the LBB:	<p>Six lanes cannot accommodate the 2025 design year traffic demand (thus does not meet the project's purpose & need). Congestion similar to that experienced during the existing peak hours will be evident in the future (2025) with the 6-lane design.</p> <p>Differences to key environmental impacts between the eight & six lane options are minor</p>
Disposition of the GSB:	<p>USCG required demolition should it no longer be used for a transportation use</p> <p>Second highest rated historic bridge in the NH, landmark structure</p> <p>Historic Resource is protected under state and federal law</p> <p>Expensive rehabilitation (\$26M, net cost to the project \$10M)</p> <p>Rehabilitation supported by FHWA, NHDHR, City of Dover, SRPC, ATF, and other concerned citizens</p>
Noise:	<p>Noise analysis completed for 2025 design-year conditions, 2 receptors in Newington & 86 receptors in Dover had noise levels exceeding FHWA's noise abatement criteria</p> <p>Based on feasibility and cost-effectiveness, four segments of sound walls are proposed in Dover</p> <p>Grade of the Turnpike is generally maintained (some other alternatives involved elevating portions of the Turnpike) at the same level as the existing.</p>
Aesthetics:	<p>Pre & post-construction computer generated visualization have been completed</p> <p>Viewsheds from the widened Bridge & Turnpike will be affected to varying degrees by the increased width of the Turnpike & proposed sound walls</p>
Inclusion of Toll Plaza:	<p>Examination of toll system is a statewide issue, not a project-level matter, requiring state legislative action</p> <p>Previous & current traffic data indicate the congestion problems are limited to areas south of the plaza</p> <p>The safety & operations of the Turnpike, south of the plaza, were evaluated and determined acceptable</p>
Access at Nimble Hill Road:	<p>The Turnpike is a limited access facility.</p> <p>A local roadway is proposed as part of the Selected Alternative to provide access to several properties in Newington, which presently have direct access to the Turnpike.</p>
Exit 5 & Hilton Park:	<p>Hilton Park was identified as a valuable recreational resource, some have advocated for improvements to the park.</p> <p>Proposed bridge widening to the west minimizes impacts to Hilton Park</p> <p>Exit 5 will be eliminated due to its proximity to Exit 6 (also upgrade of Exit 5 to minimum standards would have severe impacts to Hilton Park & Wentworth Terrace neighborhood). Access will be provided via two-way connection beneath the LBB and adjacent to the Bay.</p>



Beneficial Effects:

Substandard Shoulders on the LBB & approaches will be eliminated.

Interchanges will be consolidated, improving spacing, eliminating substandard geometry, and providing necessary traffic management lanes between Exits 3 & 6. Safety will be improved, traffic congestion reduced, and air quality improved.

Connections to the Turnpike system will be improved at Exits 3 & 6, improving system efficiency and eliminating circuitous travel.

Travel time during peak hours of the day will be improved from current approx. 10 minutes (required to travel the 3.5-mile section of the Turnpike) to approx. 4 minutes. In the future (2025), travel time is expected to be reduced from approx. 21 minutes (No-Build condition) to approx. 4 minutes with the Selected Alternative.

Local roadway connections will be improved

- Woodbury Avenue connection to Arboretum Drive (Tradeport)
- Extension of Shattuck Way and conversion to two-way traffic
- Two-way Hilton Park connector adjacent to the channel
- Two-way local connector between Spur Road & Boston Harbor Road neighborhoods

Improved pedestrian connections will be provided

- Connecting east & west sides of Hilton Park
- Connecting Boston Harbor Road and Dover Point Road with Hilton Park
- Connecting the Spur Road & Boston Harbor Road neighborhoods with Bayview Park
- Connecting Woodbury Avenue with Arboretum Drive (Tradeport) via Exit 3
- Rehabilitation of the GSB will maintain important connection across the Bay

Future planning and accommodation for a rail connection elevated above the Turnpike from the Newington Branch line into the Pease Tradeport.