



SMART GROWTH AND REGIONAL COLLABORATION

March 31, 2015

Matthew A. Beaton, Secretary
Executive Office of Energy & Environmental Affairs
Attention: MEPA Office - Page Czepiga, MEPA #15334
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: I-90/I-495 Interchange Improvements Project, MEPA #15334, ENF

Dear Secretary Beaton:

The Metropolitan Area Planning Council (MAPC) regularly reviews proposals deemed to have regional impacts. The Council reviews proposed projects for consistency with *MetroFuture*, the regional policy plan for the Boston metropolitan area, the Commonwealth's Sustainable Development Principles, the GreenDOT initiative, consistency with Complete Streets policies and design approaches, as well as impacts on the environment.

The primary goals of the I-90/I-495 Interchange Improvements Project are to improve safety and reduce congestion on I-90 and I-495 at their interchange in Hopkinton and Westborough. The Massachusetts Department of Transportation (the Proponent) proposes to improve safety and reduce congestion by improving interchange geometry to meet interstate highway standards, eliminating weaving movements through the interchange, and providing more direct connections between the two interstates. The ENF presents three conceptual designs (Concepts 14-4, 14-5 and 22-3) which meet the project's goals but vary in terms of cost (\$165 - \$285 million¹), impacts, and effectiveness.

The I-90/I-495 Interchange serves as a critical regional access point that allows automobiles and trucks to move between Boston, Worcester, and major suburban centers in the MetroWest area. The I-90/I-495 Interchange is highly congested and has long vehicle queues that often extend from the toll plaza back onto I-90 and I-495. The high number of crashes at the I-90/I-495 Interchange is attributed to high traffic volumes, substandard geometric design, and numerous vehicle conflict points. According to the 2013 MassDOT *Interstate 495 & Route 9 Interchange Improvement Study*, traffic operations at the I-90/I-495 Interchange range from a Level of Service (LOS) E to F and are projected to worsen by 2035. Crash data included in this study show that 149 accidents occurred on the various interchange ramps between 2007-2009. Additionally, *The MPO Freight Study – A Profile of Truck Impacts (approved by the Boston MPO on March 15, 2012)* concluded that the I-495/I-90 interchange is the second highest truck crash location for limited access highways in the region.

MAPC has reviewed the Environmental Notification Form (ENF) and our concerns primarily address the need to include a thorough analysis of the transportation impacts for each of the conceptual designs. Issues, proposed recommendations, and questions are detailed as an attachment to this letter. MAPC respectfully requests that the Secretary incorporate our recommendations as part of the Certificate issuance and require the Proponent to address our concerns.

Thank you for the opportunity to comment on this important regional project.

Sincerely,

Marc D. Draisen
Executive Director

cc: Elaine Lazarus, Town of Hopkinton
Jennifer Burney, Town of Southborough
Jim Robbins, Town of Westborough
Mary Ellen Blunt, CMRPC
Jack Murray, DCR
Paul Matthews, 495/MetroWest Partnership

¹ Not including right-of-way acquisition, mitigation and construction services.

Metropolitan Area Planning Council (MAPC)
Comments on the I-90/I-495 Interchange Improvements Project
Environmental Notification Form (ENF) - MEPA #15334

Funding

The limits of the I-495/I-90 Interchange Improvements Project are within two Metropolitan Planning Organizations (MPOs), the Central Massachusetts Regional Planning Commission (CMRPC) and the Boston Metropolitan Planning Organization (Boston MPO). Historically, the project has been included in the CMRPC's Long Range Transportation Plan (LRTP), but not fully funded. The project has also been included by reference (to the CMRPC LRTP) in the Boston MPO's LRTP. The ENF states that efforts are underway to include the I-90/I-495 Interchange Improvements Project as new LRTPs are being developed for both MPOs and for eventual inclusion in each MPO's Transportation Improvement Program (TIP).

Funding for the project has not yet been confirmed, although the ENF mentions that Western Turnpike funds are being considered. The DEIR should address additional funding options and clarify why Western Turnpike funds should fund this project. MAPC looks forward to collaborating with the Proponent regarding the inclusion of this project in the LRTP as well as exploring funding opportunities.

Proposed Conceptual Designs

Following a feasibility study stage which identified many alternatives and design variations, the ENF presents three conceptual designs (Concepts 14-4, 14-5 and 22-3). All three concepts meet the project goals but vary in terms of cost, impacts and effectiveness. MAPC respectfully requests that a Level of Service (LOS) and queuing analysis for each conceptual design be included in the Draft Environmental Impact Report (DEIR).

Level of Service Analysis

Instead of conducting an LOS analysis for the three conceptual designs, the Proponent calculated overall peak hour vehicle-hours traveled (VHT) to compare the effectiveness of each conceptual design. While VHT serves as a preliminary estimate, the DEIR should contain a thorough LOS analysis for each of the conceptual designs.

Queuing Analysis

The DEIR should include a queuing analysis for all I-495/Route 90 Interchange approaches for each of the conceptual designs. The Proponent should also conduct a queuing analysis that analyzes potential impacts to Route 9, a major employment and commercial corridor.

Conceptual Design Analysis and Selection

By summer 2016, I-90 will be converted to an All-Electronic Tolling System (AETS) and the toll plazas at the I-90/I-495 Interchange will be removed. According to the ENF, initial analysis of morning and evening peak hour conditions² indicates that congestion and long queues will still exist even though conflict points from the weaving movements in the former toll plaza area will be reduced.

As part of the toll plaza demolition phase, interim traffic control measures will be implemented to direct traffic through the former toll plaza area. During this phase, modifications will occur to approach and departure lanes to improve geometric design and safety. Methods may also be employed to separate and channelize movements between I-90 and I-495 to reflect the higher vehicle speeds.

² Under No-Build Condition (year 2035).

When the toll plaza area is removed, the Proponent should use this period as an opportunity to further analyze the interim traffic control measures, vehicle conflicts, vehicular and truck traffic volumes and speeds, as well as crash data. Analysis of this information will enable the Proponent to evaluate the proposed conceptual designs in more detail, and to refine the selected conceptual design.

TRANSFLO

TRANSFLO, an affiliate of CSX, recently relocated its bulk commodity transfer facility from Beacon Park Yard in Boston to the site of a former auto terminal in Westborough. The relocation of this facility is part of an agreement between CSX and the Commonwealth to strengthen the state's commuter rail and freight network. Sited on over 20 acres in close proximity to the northwest quadrant of the I-495/I-90 Interchange, the TRANSFLO facility receives bulk shipments of a wide range of commodities by rail. These industrial and consumer products are then transferred onto trucks for delivery to locations throughout Massachusetts and New England.

The TRANSFLO facility enhances CSX's freight capacity and reduces the number of freight trains headed to Boston, which opens up the rails for more commuter trains between Worcester and Boston. In order to ensure the timely distribution of commodity shipments to and from the TRANSFLO facility, it is critical that the I-495/I-90 Interchange operate efficiently and safely. MAPC respectfully requests that the DEIR address how each of the three conceptual designs would facilitate the truck and rail operations related to the TRANSFLO facility.

Construction Plan

The I-90/I-495 Interchange is surrounded by sensitive natural resources and protected areas that include wetlands, Cedar Swamp (an Area of Critical Environmental Concern), an endangered species habitat, and conservation land. The DEIR should delineate what precautionary measures may be necessary during construction (i.e., the staging of construction materials and equipment) and whether these measures would affect the construction cost estimates for each of the three conceptual designs.

Greenhouse Gas Emissions and Air Quality Analysis

Although the ENF states on page 2 that "each of the alternatives will improve mobility and congestion and, by association, air quality," the DEIR should include a greenhouse gas emissions and air quality analysis that evaluates and compares the impacts of each conceptual design.

MAPC has a long term interest in alleviating regional traffic and environmental impacts, consistent with the goals of *MetroFuture*. The Commonwealth also has established a mode shift goal of tripling the share of travel in Massachusetts by bicycling, transit, and walking by 2030. Additionally, the Commonwealth has a statutory obligation to reduce greenhouse gas emissions (GHG) by 25% from 1990 levels by 2020 and by 80% from 1990 levels by 2050.

Often, projects that reduce congestion in the short term have the counter-intuitive result of increasing traffic over the long term, as more automobiles use the roadways due to reduced congestion. Over the long term, this can result in an increase in Vehicles Miles Traveled (VMT), the number of trips by Single Occupancy Vehicles (SOV), and an increase in GHG. The GHG assessment should explicitly consider these factors and evaluate likely impacts on GHG over the long term.