Memorandum

To: Libbytown Traffic Circulation and Streetscape Study Team
   John Duncan - Executive Director, PACTS
   Michael Bobinsky - Director of Public Services, City of Portland

From: Steven Landry - State Traffic Engineer, MaineDOT; Herb Thomson, Ed Hanscom,
      Dan Stewart - Bureau of Planning, MaineDOT

cc: Michael Praul - FHWA Maine Division
    Mark Rees - City Manager, City of Portland

Date: September 23, 2013
Subject: MaineDOT Comments on Draft Report, (dated July 2013)

During a meeting on July 30, 2013 with the project study team, MaineDOT and
FHWA, MaineDOT staff requested an opportunity to review and evaluate the Libbytown
Traffic Circulation and Streetscape Study draft report. In recent weeks, MaineDOT staff from
the department’s Traffic Engineering Division, Transportation Analysis Section, and
Bicycle/Pedestrian Program, in coordination with the Federal Highway Administration
(FHWA) Maine Division, reviewed the draft study. MaineDOT staff appreciates having had
the time to conduct a thorough review and provide its findings to the study team.

MaineDOT staff strongly supports the goal of making the Libbytown neighborhood safer
and more inviting for all modes of travel, including for pedestrians and bicyclists. However,
based on careful review of the report recommendations, MaineDOT, with the concurrence of
FHWA, has determined that the department cannot support or approve the proposals to
remove Interstate ramps, as was recommended in the study draft. The main reasons for this
determination are faulty assumptions on which the modeling and recommendations are based,
and anticipated adverse impacts on the transportation system both within and outside of the
study area, including to other Interstate ramps. Key findings of our analysis are as follows:

- The basic assumptions used to develop the recommendations to remove the Interstate
  ramps are based on faulty travel-demand modeling tabulations, and faulty base-level
  intersection Levels of Service (LOS).

- The modeling tabulations in the study indicate both a reduction in Vehicle Miles
  Traveled (VMT), and Vehicle Hours Traveled (VHT) when the ramps are removed.
  This scenario is counter-intuitive to removal of roadway network segments, including
  ramps. MaineDOT findings indicate that the base VMT and VHT modeling
  tabulations were apparently made with incorrect base information, leading to skewed
  modeling results. The resulting tabulations apparently overestimated reductions and
  underestimated increases in travel times and distances. The fundamental reasoning
  for the recommended alternatives is thus evidently based on flawed data.
The intersections of St. John Street and Congress Street, and St. John Street and Park Avenue were rated at a LOS A in the report, while an independent analysis on an existing transportation improvement project indicates that these intersections are currently functioning at LOS C or D. Since these intersections are part of the Synchro network used for the modeling, and since the study data related to these intersections in the report do not match existing data, we are not confident that the entire network model is calibrated properly. In addition, the LOS at some of the other intersections does not match actual conditions on the ground.

Importantly, MaineDOT has determined that even if these flaws in the modeling tabulations did not exist, and even if the conclusions regarding the effects on the study-area network were correct, the adverse effects on the overall transportation system identified in the report, including on multiple intersections and roadway segments, far exceed the potential traffic-calming and other benefits that are envisioned by the proposed removal of the Interstate ramps.

The report itself concludes that many intersections and streets will see increased traffic levels and degradation of LOS. This increase in traffic at intersections and on roadways can be expected to cause a degradation of pedestrian and bicycling safety and comfort at several intersections, and an overall reduction in quality-of-life in neighborhoods outside the study area. The increased traffic at these intersections can be expected to cause safety issues for all users, including motor vehicles, pedestrians, bicyclists and transit vehicles.

MaineDOT and FHWA are very concerned about the potential increase in crashes at the remaining ramps that will see increased use. The Fore River Parkway northbound on-ramp is an existing high-crash location, and the proposed removal of Ramp C would increase the volume of traffic on the weave of the I-295 collector-distributor. MaineDOT has serious concerns about the potential for increased crashes at this location. FHWA resources regarding Interstate Access are available at:

http://www.fhwa.dot.gov/programadmin/fraccess.cfm and
http://www.fhwa.dot.gov/design/interstate/pubs/access/access.pdf

MaineDOT also has serious concerns with the potential ramifications for incident management due to increased travel distances and congestion. MaineDOT has received feedback from Maine Medical Center, indicating concern for the increased time it will take for emergency responders to get to the Trauma Center.

Regarding the two-way concepts for Congress Street and Park Avenue, MaineDOT recommends that any future analysis include a properly calibrated Synchro network and a remodeling of existing and future scenarios.

The stated goal of the study is “to comprehensively assess and make recommendations regarding the multimodal transportation network, circulation pattern, and supporting streetscape within the eastern portion of the Libbytown neighborhood.” MaineDOT recommends that future analysis be initiated to identify streetscape measures that could meet the objectives of the study, potentially including bike lanes, sidewalks,
improved crossings, rectangular rapid-flashing beacons, traffic calming and other options.

MaineDOT strives to work collaboratively with communities across Maine on initiatives that improve the transportation system for all users. The department is supportive of efforts that improve transportation safety and mobility, and preserve the rural, urban and neighborhood contexts in which they exist. In the case of the Libbytown study, we at MaineDOT have concluded that the recommendations in the draft report, most notably including removal of Interstate ramps, are not supported by available data. Further, we cannot envision a realistic scenario in which MaineDOT or FHWA would approve removal of the ramps in the study area, and we do not support further analysis regarding their removal. However, the department stands ready to work with the city of Portland and PACTS to address transportation safety and livability in Libbytown and other neighborhoods in the city.