

Memo

To: General Public

From: Citizens for the North South Rail Link – Working Group

Date: December 10, 2018

Re: Major Concerns – North South Rail Link Feasibility Reassessment

Citizens for the North South Rail Link – Working Group

The working group is a volunteer coalition brought together by former Governors Michael Dukakis and William Weld. The group comprises public transportation advocates, policy experts, and elected officials from across the region who support better, more effective, efficient, and sustainable transportation policies in service to more robust economic, environmental, and equity outcomes.

Why should we build the North South Rail Link?

The question should be: *What is Boston's future without it?* Currently greater Boston is the sixth most gridlocked urban area in the country and improving the highway access to meet current and future demand is unrealistic. Not providing transportation capacity for the Boston region will continue to adversely affect economic growth, environmental stewardship, and the quality of life for decades to come.

Massachusetts does not have a “unified transportation system or network” so fundamental to economic competitiveness in a 21st century global market. The Rail Link would be a catalyst for bolstering the Commonwealth’s underutilized rail infrastructure, thus stimulating development of a world-class public transportation system. The result: numerous economic, environmental and social benefits that will lead the way to a prosperous, more equitable future for the state and region. The Rail Link is an expensive project but far less expensive than an equivalent increase in regional highway and rail capacity. There was no attention given to the *opportunity costs of not building NSRL*, measured in financial, human, and social productivity along with overall quality of life. Similarly, there was little attention to the benefits of building NSRL, which we believe significantly outweigh the costs. Primary 2040 benefits described in **Chapter 7 Evaluation/Benefits** of the study include:

- Removal of 52,500 auto trips each weekday. For auto users, reduced highway congestions means **recouping over four million hours each year lost in commute time** (table 34). That is time that can be put toward more productive use;

- Reduction of 119 million automobile miles each year (table 38);
- Reduction of 32,000 riders from the public transit services (table 39);
- Reduction in inequality with regional unification of bifurcated and divided labor pools and greater access to decent work (section 2.2 A Divided System), including access to 25 percent more jobs for the Environmental Justice communities (table 50);
- Increased opportunities for economic and transit-oriented development. The current study estimated that 48.8 acres of prime Boston real estate will be made available for 15 million square feet of development, which could generate 27,950 jobs and 3,950 housing units (table 46) in addition to better green-space management;
- Greater access to affordable housing and development of vibrant, sustainable communities; and
- Increased 2040 commuter rail system ridership by an estimated 100,000 riders, when compared to the no-build alternative. On top of that, ridership increases for most of the 25 “Gateway” cities are more pronounced (7.2 Mobility Impacts) than the system-wide increase.

MAJOR CONCERNS

Chapter 7 (discussed above) contains some results that do not make sense, including:

- The conclusion that there will be no reduction in CO2 emissions, despite a reduction in the number of vehicles and traffic congestion (table 52); and
- The results of Section 7.3 **Operational Efficiencies** differ significantly with findings from the previous study, which showed substantial operational cost savings of more than \$80 million per year. This disparity is due to a service plan featuring peak period service running all day long for the Aspirational service, which seems to be the basis of comparison, rather than prudent use of off-peak service.

The consultant’s report was, from the beginning, limited in scope. It was a technical feasibility study primarily undertaken by engineers and it did just that: **acknowledge that, technically, the NSRL is feasible to construct**. However, the consultant’s report concentrated primarily on costs and only 4 percent of the budget was directed to “benefits.” Unlike accepted business best practice, *there was no “cost-benefit” analysis to convey the value proposition*. There was no evaluation of across-the-board economic, environmental, and equity outcomes as a result of a high-quality, unified rail system.

Comparability. Why is it that other cities throughout the country and world invest more than we do in transportation? Why do we rank so low on comparability? Our inferiority directly affects our competitive advantage, despite our glittering array of world-class educational and medical institutions that beckon the globe. We lost out on Amazon. What else will we lose? The peer-review workshop held in October 2017 showcased the “rail revolutions” occurring in Seattle, Los Angeles, and Toronto.¹ Given our region’s “revolutionary” history, why can’t we measure up? Given these shortcomings and more, we have to wonder about the sincerity of the administration and MassDOT in committing to the high-quality transportation system we deserve.

1. **Scope** – Even with its limited technical focus and exclusion of risks and opportunities, the consultant’s scope of services was not well executed. Neglected yet critical scope items include:

¹ See *NSRL Peer Group / Working Group Meeting Notes*, October 19, 2017. Available on MassDOT website at https://www.mass.gov/files/documents/2018/06/07/PWGMeetSum_Oct9.pdf.

a. **Task 3 Civic Engagement:** No Civic Engagement Plan was developed, and a number of scheduled public workshops and meetings didn't take place. There was no tour of North and South Stations, no public risk workshop, and no public simulation workshop.

b. **Task 7.2 Benefit Assessment:** Arup's proposal provided for subcontracting with an environmental consultant to assess environmental and health impacts, that did not happen, leaving many important environmental issues unexamined.

2. **Cost Estimate** – The cost estimates are misleading and based on faulty assumptions and limited evidence. *The costs presented at MassDOT's June 18 presser were communicated in 2028 dollars, which is the expected midpoint of construction. This mid-point escalation is a requirement for federal document to be developed in future phases of the project development process. This is not a federal document and the inflated costs left a misleading and negative impression on the public.* Moreover, the study includes a "Rough Order of Magnitude" estimate, the crudest defined level of consideration. The next level of cost estimate accuracy is defined as "Concept Feasibility" and is more appropriate for a "Feasibility Reassessment". The use of such a crude approach to calculation generated artificially high contingencies that are not data-based. Other concerns include:

a. The estimates included all system improvement costs to 2040. The estimate also included layover facilities, and equipment that are not required to accommodate expected service demand in 2040 or identified by any detailed analysis.

b. Alternative procurement options that have been successful in other areas to reduce "risk" which would reduce the significant project contingencies and costs for the Commonwealth were not explored.

c. Contingencies and escalation result in total costs at least 275 percent of base direct and indirect construction costs.

d. Cost comparisons were developed with similar projects and the proposed costs were significantly higher for the NSRL alternatives.

3. **Service Planning** – The consultant did not follow "best practices", basing its methodology on *infrastructure capacity* and not *expected service demand*. This is a fundamental flaw in addressing expected future demand, leading to:

a. Significantly more services than necessary were proposed for the horizon year (2040), which skews operational costs, fleet size, and the cost of system improvements.

b. The infrastructure capacity was based primarily on tunnel capacity for the alternatives. In many cases, such as the Old Colony service, the practical track capacity was exceeded.

c. Neither Amtrak nor Massport were included in the study. That precluded discussions of phased electrification, capital improvements, and impacts to Amtrak's current Northeast Corridor Plan. Nor were connections to Logan Airport evaluated.

d. There was no Operational Simulation Model used to evaluate service plans or develop accurate operating cost comparisons and potential benefits, such as direct access to the Boston Engine Terminal for the majority of the MBTA fleet operating south of the Charles River.

4. **Service Alternatives** – The report's service option scenarios did not align with strategies typically adopted by other public transportation agencies. To wit:

a. Providing off-peak service with more appropriate multiple units (MUs), a strategy used throughout the world. Failure to consider MU's has likely resulted in an overstatement of costs and an understatement of benefits especially for maintaining peak period performance during off-peak periods.

b. Operating peak period service all day long rather than adjusting service levels to off-peak demand. This is the proposed service for the “Aspirational” service option which is the option used for comparisons in the study.

5. **Alternatives Analysis** – Typically the “build” alternatives are compared to the expected service and costs that would be in place without the project in the horizon year (2040). Yet the report uses **2017 service levels** as the “no build” comparison for project alternatives, which suggests **no added commuter rail service or capacity over the next 20-plus** years, except for limited South Coast Rail service.

Additional concerns include:

- a. No analysis of the alternatives was undertaken regarding how long these investment alternatives will serve demand.
- b. Ridership was estimated using existing ridership patterns. The Rail Link is expected to be a “transformative” project that will allow travel patterns that currently are not feasible. The transformational benefits cannot be quantified using the existing regional transportation model. In addition, the regional model has not been updated to recognize emerging technologies enabling ride-sharing services (Uber and Lyft) and autonomous vehicles. These options are likely to improve first and last mile access, making public transportation much more attractive by 2040.
- c. Several service alternatives exclude the Old Colony and Fairmont lines from tunnel use and keep them at the surface tracks at South Station. This may restrict them as stub end services that indefinitely excludes an entire portion of the Commonwealth. The 140 acres around Widett Circle will continue to be fragmented by surface rail lines, greatly reducing development potential and value.

NEXT STEPS

Preserve the Option – First and foremost, the ability to build the Rail Link now or in the future must be preserved. The “construction envelope” for the future alignment cannot be compromised. This means building deep foundations and permitting development that will restrict the proposed surface access for the mining and tunnel boring machine launch pits.

The December 10, 2018 public meeting will introduce a preferred alternative, but this alignment will be based on incomplete information and limited cost/benefit analysis. Given the study limitations, oversights, and weaknesses, we believe that the 12/10/18 “preferred alignment” that emerges cannot be taken seriously. The completion of the environmental process is the most effective way to “Preserve the Option”.

Complete the Environmental Process – The legislature has included \$10 million in the FY19 Capital Bond Bill for the next level of study that needs authorization. That analysis should include addressing the deficiencies in the current study along with revisiting the draft environmental documents and the DEIR Certificate developed and approved in 2003. Additional consideration of management, procurement, and financing options that will benefit the Commonwealth should also be explored.

Develop Federal Partnerships – The previous Major Investment Study and the 2003 DEIR/DEIS were underwritten by Amtrak and the Federal Railroad Administration. We believe that rekindling the relationship with these agencies and other appropriate transportation and economic development entities will facilitate acquisition of federal funding to complete the remaining project development process.

Questions? – Please contact Clay Schofield via email at NSRLClay@gmail.com