Testimony before the

New York State Senate Standing Committee on Corporations, Authorities and Commissions and the Senate Standing Committee on Transportation

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Virtual Testimony given by:
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Thank you Chairmen (Leroy) Comrie and (Tim) Kennedy for the opportunity to testify today to the commitments that Amtrak has made and the plans we are developing for the work to restore our railroad infrastructure in New York, especially the tunnels under the East River.

My name is Dennis Newman. I am the Executive Vice President of Planning and Asset Development for Amtrak. I am joined by Gery Williams, our Vice President and Chief Engineer as well as Clavel Crump, Director of Capital Construction. Clavel was one of the first on the scene after Superstorm Sandy flooded the East and North River Tunnels in 2012 – he has been instrumental in removing the water and caring for the tunnels ever since.

Today we will touch on the status of plans for rehabilitation of the East River Tunnel, and related work in support of MTA projects such as East Side Access and Penn Station Access. These projects are all interdependent and must be closely linked if we are to realize our vision for a robust transportation network that supports not just the economy of America's largest city but the rest of the Northeast Corridor between Washington and Boston – a territory that accounts for some 20% of America's GDP.

The East River Tunnel serves as the single, critical passenger rail link connecting Manhattan and Queens – providing access to Sunnyside Yard, Long Island, and New England for the Amtrak, NJ TRANSIT and Long Island Rail Road (LIRR) trains. The combination of age, extremely heavy use, antiquated design and impacts from Sandy have created a set of interrelated conditions that must be holistically addressed in order to improve safety and reliability for the more than 800 daily train moves made by the three railroads.

Amtrak is fully committed to comprehensively rehabilitating the East River Tunnel and has been a driving force advancing the engineering design, service planning and stakeholder coordination on the project for years while continuing to operate and maintain this century-old asset in cooperation with our railroad partners.

After two of the tunnel's four tubes were inundated during Super Storm Sandy, Amtrak funded and launched a series of immediate remediation activities recommended in a 2014 assessment by HNTB, a world-renowned engineering

consulting firm. These near-term activities continue today while the long-term recommendations in the report were rolled into a comprehensive East River Tunnel Rehabilitation program. The design of that program began in 2015 and will be complete later this year.

The recommendations by HNTB included:

- Replacing and modernizing all electrical and mechanical systems and equipment, including improvements to the third rail used by Long Island Rail Road and installation of a new overhead catenary (power) system used by Amtrak and NJ TRANSIT;

- Removing existing bench walls and replacing with newly reconfigured bench walls that conform to modern safety standards and significantly improve emergency egress for passengers and access for first responders and maintenance personnel;

- Removing antiquated and high-maintenance tunnel ballast and rail systems and replacing with a state of the art "direct fixation" rail system for the entire length. The East River Tunnels are some of the last tunnels in New York to use ballasted track, which does not drain well causing a host of water-related issues.

- And inspecting and repairing leaks and cracks in concealed areas behind the bench walls and under the trackbed.

Undertaking this package of work across the entire two and a half (2 ½) mile length of two of the four tubes is uniquely challenging. As Gery will explain shortly, Amtrak's analysis points to an extended tube closure as the most reliable, efficient and cost-effective method for ensuring comprehensive rehabilitation that will stand the test of time under extremely heavy use. Amtrak's design for this work, undertaken together with our consultant Jacobs Engineering – named the #1 Design Firm in Engineering News-Record – is on schedule for completion by the end of this year.

Amtrak is quite familiar with the concept of "in-service refurbishment" as it is a practice commonly used in the railroad industry. For decades Amtrak has employed such techniques to replace track and other systems and components throughout our network. We've learned that despite the allure of fewer planned train delays, in-service refurbishment can introduce the risk of far worse

unplanned service interruptions and delays which can have devastating consequences on passengers' lives. We've also learned that in-service refurbishment often fails to deliver the durability, reliability and longevity needed for an asset as critical as the East River Tunnel.

We saw direct evidence of that in New York Penn Station, where – prior to 2017 – years of 'in service' refurbishment on nights and weekends led to deferred maintenance and a growing backlog of capital investment in tracks, platforms and other railroad infrastructure. In Spring of that year, after several significant infrastructure-caused derailments in the station, Amtrak dramatically changed our approach – reducing service by all three railroads to allow sections of the station to be removed from service for weeks at a time so full and comprehensive replacement of tracks, switches, signals and other key infrastructure could take place. By closely coordinating this work with our partner railroads and extensively engaging with the public, we were able to manage the process successfully and minimize unplanned service disruptions. This process was repeated the following two summers with minimal public outcry, resulting in a far more reliable and resilient Penn Station than existed before.

Given the number and variety of issues that require fixing in the East River Tunnel, in-service refurbishment is not practical. While this approach was successfully used in the MTA's Canarsie "L Train" tunnel, the technical circumstances in the East River Tunnel are not an apples to apples comparison. As Gery will explain in a moment, the primary differences involve the 12,000 volt cables that run through the East River Tunnel (Canarsie Tubes max voltage is 600 volts), the already-optimized height of the Canarsie bench walls and the presence of an antiquated, "ballasted" trackbed in the East River Tunnel, as opposed to the more modern and superior "direct fixation" track system that already exists in the Canarsie Tunnel. Each of these systems – and others – must be upgraded in the ERT and restored to full functionality which cannot realistically be done on nights and weekends.

All parties are eager to advance East River Tunnel rehab as quickly as possible. However, even if it were even technically feasible, performing the required work exclusively during night and weekend outages would likely drag the project out over the course of more than 10-15 years! Throughout this time, resources would

be diverted from other projects including East Side Access and Penn Station Access, State of Good Repair work would be delayed, and the uncertainty of potential unplanned service outages would hang over riders for many years. To say nothing of the additional cost.

Amtrak is open to and welcomes alternative approaches and innovative means and methods of delivering the full scope of the East River Tunnel rehab project better, faster and cheaper. For nearly 2 years, Amtrak, MTA and NJ TRANSIT engineers have been meeting and working together to explore the potential feasibility of such concepts, including the "Canarsie methods." This cooperative work has been useful as concepts that improve upon the original plan are being incorporated into the design.

We are working with MTA to further develop these concepts and continue supporting their work on the East Side Access program, which must be completed before ERT rehab can begin. Specific elements of that project – namely the Eastbound Reroute and Westbound Bypass – will help mitigate the service impacts of ERT rehab on all railroads. In fact, when East Side Access opens and Long Island Rail Road trains start serving both Grand Central and Penn Stations, it will be Amtrak trains and customers that face the largest proportional impact on service as a greater percentage of our service to and from Manhattan is cancelled, as compared to LIRR and NJ TRANSIT.

Amtrak is also working cooperatively with MTA on the design of the Penn Station Access program, which we fully support. Penn Station Access will bring Metro North New Haven Line service down Amtrak's Hellgate line and through the East River Tunnel into Penn Station, for the first time. Contrary to popular belief, however, rehabilitating the East River Tunnel "in place" would not expedite the Penn Station Access Project. In fact it would likely delay the project as resources needed to support Penn Station Access would instead be diverted to the "in service rehab" of East River Tunnel. Full closure of the ERT tubes would have no bearing on the project, however, as the timing of Metro-North service to Penn Station ultimately depends on the MTA's ability to fund the project and their own decisions about how to allocate its train slots between LIRR and Metro North during the ERT work.

The safety and reliability of our railroad and the East River Tunnels is of paramount importance to Amtrak. We continue to work cooperatively with the MTA, Long Island Rail Road and NJ TRANSIT on strategies to advance this work with the least possible passenger and train service impacts.

As responsible owners and stewards of this infrastructure, Amtrak recognizes that we must act to catch up on decades of underinvestment in rail infrastructure. We have looked for every innovative approach to make up for the fact that these concerns have been kicked down the road for far too long. The approach we are taking for the ERT is informed by this experience. We do not believe it is helpful to put off for the future the appropriate level of investment to assure safe and efficient use of the system. Whether it's the East River Tunnel, the North River Tunnel under the Hudson, the B&P Tunnel near Baltimore or the Connecticut River Bridge in New England, Amtrak is committed to making sure rail passengers and the railroads are best served by smart, safe and proactive investment that minimizes risk and maximizes return.

Thank you for offering us an opportunity to discuss these important projects. I'd like to now hand off to my Engineering colleagues Gery Williams and Clavel Crump for some technical explanation about the differences between the ERT rehab and L Train projects.