NYC DEPARTMENT OF TRANSPORTATION TESTIMONY HEARING BEFORE THE CITY COUNCIL COMMITTEE ON TRANSPORTATION
December 14, 2017

Good morning Chairman Rodriguez and members of the Transportation Committee. I am Polly Trottenberg, Commissioner of the New York City Department of Transportation. I am also the City's representative on the MTA Board. With me today are Eric Beaton, Deputy Commissioner for Transportation Planning and Management and Rami Metal, Director of Strategic Engagement. And I am glad to be here with my colleague Ronnie Hakim. Thank you for inviting us to testify on behalf of Mayor de Blasio about the City's plans for the 15-month closure of the Canarsie Tunnel starting in April 2019. This closure will challenge the City, the MTA, and the traveling public—be they subway riders, bus riders, drivers, pedestrians or cyclists.

Overview of the Challenge

I want to start by saying that we are preparing for an extraordinary event. Our traffic engineers and transit planning experts have done extensive modeling, planning, and detailed on-site reviews as well as numerous public meetings, community board presentations and open houses. From our analysis it is abundantly clear that whether we like it or not, hundreds of thousands of New Yorkers will be inconvenienced, including those in communities beyond the immediate areas along the L train corridor. Getting through this will involve shared sacrifice for many of us.

While we cannot overstate the magnitude of the disruption, we also realize it represents an enormous opportunity to think creatively and be bold. The plans we present today will mitigate a major interruption of service, but they will also support dramatically improved bus operations, make transformative enhancements to cycling in both lower Manhattan and north Brooklyn and create extensive new pedestrian spaces.

A total of 400,000 daily riders use the L train: 50,000 within Manhattan, 225,000 between Manhattan and Brooklyn and 125,000 within Brooklyn. At peak hours, the L train carries as many people into Manhattan as all six East River bridges and tunnels together carry in vehicles. The L train carries as many people into Manhattan as the entire Long Island Railroad. The 50,000 who use the L to travel solely within Manhattan along the 14th Street corridor is a larger ridership than the any single bus route in the City and 61 percent greater than the M14's current daily ridership of 31,000.

One thing that we know is that nothing matches the efficiency of the subway system and, as the MTA has laid out, alternative subway routes will carry 70 to 80 percent of displaced L train riders needing to enter Manhattan. At the same time MTA buses will carry up to 15 percent

of affected commuters coming into Manhattan and along 14th Street. Additional ferry service will carry up to five percent, and we expect one to two percent of affected commuters to use bikes.

While alternative subways may be crowded, they will provide the best option for most travelers. However, a reliable bus ride into Manhattan will also be critical for those for whom taking the subway is infeasible. And buses will be necessary to relieve some of the pressure on the subway system overall. Even though subways will absorb the large majority of displaced riders, we will require transformative steps to move tens of thousands of commuters by bus.

To visualize and understand everything we are proposing, we thought it best to look at our planned changes by affected community.

14th Street

As the longest crosstown street in Manhattan, from the Whitney Museum to Stuy Town, 14th Street is a vibrant mix of cultural, retail, educational and health institutions, along with dozens of residential buildings—a bustling hub of activity, fueled in part by the mobility the L train has provided since it first opened 93 years ago.

The 50,000 Manhattan-only L train riders will need a reliable, above-ground replacement. As a result, DOT will implement bus service improvements and protected bike lanes, and we will need to dramatically increase sidewalk space to prevent pedestrians from dangerously spilling into the street.

14th Street "Busway" and More

To support dramatically enhanced bus service and provide relief for acute pedestrian crowding, DOT plans to implement a "busway" that will be exclusively for buses during rush hour, in a core zone, as well as 24/7 dedicated red bus lanes all along 14th Street. And as announced by the Mayor in October, we will bring Select Bus Service to 14th Street as part of this effort. SBS has already proven successful at increasing ridership and reducing travel times on three other crosstown Manhattan routes.

As you can see from the rendering behind me, this will be an SBS "upgrade-plus" that will include temporary bus bulbs, sidewalk expansion, and improved station elements at stops. Bus stops will be offset, out of the travel lane, with commercial loading zones in between.

Applying this busway treatment to a core zone—between 3rd Avenue and 8th Avenue traveling westbound, and between 9th Avenue and 3rd Avenue traveling eastbound—will help us meet our targets for bus travel times while minimizing chokepoints and traffic spillover that would be caused by a busway treatment for the full length of 14th Street, river-to-river.

The 14th Street Busway will require focused bus lane enforcement. We are working with NYPD on an enforcement plan and will also rely on automated bus lane enforcement. Our working plan is to allow Access-A-Ride at all times, allow access to the three garages on 14th Street, and limit deliveries during rush hours. But we intend to work closely with local elected officials, community boards, businesses, major institutions, BIDs, and the TLC to refine our plan.

We are also focused on providing the best possible bike connection along this corridor—as we expect demand for cycling will double as a result of the closure. We have concluded that the sheer volume of buses that will be on 14th Street and the need for expanded pedestrian space will not mix well with the high cyclist volume we expect.

Therefore, as you can see from the rendering behind me, we will be adding Manhattan's *first* protected two-way crosstown bike lane along **13th** Street from Avenue C to 9th Avenue. This change will help us meet demand for cycling—growing even without the L train closure—safely and with fewer conflicts.

To accommodate the necessary redesign of 13th Street and 14th Street, DOT will repurpose approximately 300 metered parking spaces on 14th Street and a mix of about 250 metered and non-metered parking spaces on the south curb of 13th Street. At the same time, we are proposing to add 75 new commercial loading spots on 14th Street.

Since we expect crosstown cycling and walking to increase dramatically as an alternative to the L train, we are proposing other exciting public space improvements on repurposed roadbed on Union Square West and University Place:

- On Union Square West, we will maintain a service loop between East 16th and East 15th Streets, while closing the blocks between East 17th and East 16th and between East 15th and East 14th for new pedestrian space in an area that is right now typically filled with pedestrians.
- On University Place between East 13th and East 14th, we will create bike parking with potentially expanded Citi bike capacity, a bike parking concession kiosk and several bike corrals along with new pedestrian space.
- We will also explore various options to enhance secure and in some cases weather-protected parking options for private bicycles along the affected corridor, using temporary structures, leased space, and innovative partnerships.

Other changes in Manhattan

In our plans, we will complement 13th Street's new protected bike lane with upgraded infrastructure along East 20th Street to ensure a safe and convenient cycling route to connect the Stuyvesant Cove ferry landing and the East River Greenway to the protected lanes on 1st and 2nd Avenues. We are also looking at ways to improve pedestrian crossings and boarding areas for ferry passengers connecting with the bus.

On Delancey Street on the Lower East Side, we will bring long-awaited improvements that create a direct, protected bike link between Allen Street and the Williamsburg Bridge as well as an eastbound connection from Chrystie Street. Together, these new lanes will create a high quality protected bicycle route all the way from Brooklyn to 14th Street in Manhattan, while calming traffic and reducing bike and pedestrian conflicts.

The East River Crossings, Buses and HOV Restrictions

Keeping 14th Street and other crosstown streets in Manhattan in motion is only our first challenge. The L train closure will put a tremendous strain on the Williamsburg Bridge. When it comes to getting New Yorkers over the bridge, we have looked at a range of options. We project that MTA buses will need to serve about 30,000 riders per day, or the equivalent of 25 packed L trains, and we need to take aggressive action if our crowded streets and bridges are going to handle this surge of buses.

If we were to make no changes to our streets to efficiently move buses, they would simply not be a reliable alternative option. We would expect to see severe overcrowding on our subway lines and worsening congestion in Midtown, Williamsburg, and near the approaches of all our East River crossings as transit riders shift to taxis and other services.

From DOT's side, our goal is to make sure that New Yorkers who are traveling by bus over the Williamsburg Bridge will have travel times that are as fast and reliable as possible. At the same time, we want to minimize congestion caused by these changes, both in Williamsburg and around the City.

To this end, DOT will create a set of dedicated bus lanes that connect from the Grand Street L train station and along Roebling Street, across the Williamsburg Bridge, and onto Delancey Street and other key locations in Manhattan. Note that I said Grand, which is **not** the closest Brooklyn L train station to Manhattan but will be the best connection to buses headed over the Williamsburg Bridge.

Once those buses get to the 114-year old Williamsburg Bridge, the narrow lanes mean that buses and trucks will need to share this space. We are also evaluating how best to handle car traffic bound for Clinton Street in Manhattan, which may also need to use the outer deck of the Williamsburg Bridge so as not to delay buses with late merging behavior.

We will handle the increased demand for the Williamsburg Bridge through the imposition of High Occupancy Vehicle restrictions of a minimum of three people (or "HOV3") during rush hours, together with bus lanes on the approach spans and along L-alternative bus routes on both sides of the bridge. This will permit buses to move reliably over the Williamsburg Bridge.

We do not make these plans in a vacuum. We have had some experience with HOV restrictions in the past: after September 11th, during the 2005 subway strike, and in the aftermath of Superstorm Sandy. And we prepared for such restrictions again in anticipation of a Long Island Rail Road strike in 2014.

HOV restrictions are complex: we will need to facilitate pick-up zones that allow for the safe and efficient loading of passengers by both private and for-hire vehicles, create clear signage, and communicate understandable travel options and regulations for affected commuters.

When it comes to enforcement of the restrictions such as those that will be needed for the Williamsburg Bridge, the City will seek temporary State authorization for additional automated bus lane enforcement. As always we would welcome the support of our elected officials to help win this authorization in Albany.

We also anticipate that some L train riders will choose ride-share services, as either their main mode, or to connect to another mode. DOT will work with our partners at the TLC wherever possible to encourage high occupancy taxi and FHV services that improve overall mobility without duplicating mass transit or interfering with MTA's critical replacement bus services.

Finally, I want to caution that our modeling shows that with new HOV restrictions on the Williamsburg Bridge, significant traffic will shift to other East River crossings and approaches, potentially causing significant back-ups. And these back-ups would not just be on our highways. They would have a direct effect on Queens Boulevard, Tillary Street, Flatbush Avenue, and other streets miles away, many of which are already heavily congested during peak hours. We will continue to analyze this issue and will be engaging in further discussions about these bridges.

Brooklyn Changes

Now I want to further discuss our work in Brooklyn, where we have made major improvements for bus riders, pedestrians and cyclists—and more are on the way. As with much of our work on the Manhattan side, Brooklynites will also benefit from these operational and safety improvements long after the L train returns in 2020.

Those of you who have been in Williamsburg lately know that working closely with the MTA, DOT has made great improvements to the B44 SBS bus terminus there, including major sidewalk upgrades. We have a lot of plans for nearby areas. With 7,000 cyclists per day, the Williamsburg Bridge is already the busiest East River crossing for cycling. By once again using our Sandy experience as a guide, we can reasonably expect daily bicycle volume to double during the L train closure.

To improve bike and pedestrian access to and from the Williamsburg Bridge and as part of our record 25 miles of protected bike lanes in 2017, we recently added protected bike lanes at Borinquen Place, South 4th, and South 5th Streets linking to the existing bike network in Williamsburg. We also added new routes on Scholes Street and Meserole Street to improve access deeper into Bushwick.

These new projects lay the groundwork for further enhancements to the neighborhood network to provide a direct bike route in Brooklyn for cyclists headed to the Williamsburg Bridge. Getting Grand Street right will be important and is one of our biggest challenges. This street serves at once as a critical mapped truck route, connecting the North Brooklyn IBZ with

the Williamsburg Bridge, a thriving commercial corridor, a bus corridor for the Q54 and Q59, and a major bike route. Our plan for Grand Street will have to balance all of these needs and will include new protections for cyclists and dedicated space for buses to accommodate L-alternative buses and the growth in cycling we anticipate.

We have mentioned the critical role of the Willamsburg Bridge as an alternative bus and cycling route for L riders, but by far the most New Yorkers who use this bridge will be those taking the J, M, and Z trains. We are preparing to ensure that the corridor along Broadway and Myrtle where this elevated line runs can safely accommodate the influx of pedestrians and cyclists arriving to take the train in South Williamsburg and Bushwick. We will be installing new crosswalks and curb extensions, bike parking, and expanded pedestrian space. And we are studying street design and traffic controls to reduce conflicts, shorten crossings, and create simpler, safer turns.

Likewise we will make street improvements around the Nassau Avenue G train station in Greenpoint. As you have heard, like the JMZ, the G is expected to see a big increase in ridership, and we will create shorter, safer, more direct crossings to the train.

Other Cycling Improvements

To maximize our investments in all these new bike lanes, DOT will be working to expand bike parking in areas where we expect cyclists may transfer modes, especially from bike to subway. I mentioned expanded bike parking in Union Square earlier, but we are also looking at robust new bike parking facilities near stations at both ends of the Williamsburg Bridge.

We also look forward to working with our partners at Motivate to enhance Citi Bike's capacity to serve displaced L train riders. Citi Bike improvements might include robust valet services to move riders along the L train crosstown corridor and disperse them from bus drop-off points in Manhattan, as well as increased capacity and bicycles in Brooklyn and throughout the system.

Conclusion

I would like to conclude by saying that there is no question Hurricane Sandy dealt us a tough hand. And as we and the MTA have done our analysis, we have become convinced that many New Yorkers will be affected even though they may not realize it yet—whether on roads they travel, or the buses or trains they now ride that will see an influx of L train riders.

I want to commend the very talented and dedicated DOT and MTA staffs for all their hard work and creativity in putting together this ambitious plan. And I know our agencies will continue to be strong partners on behalf of the traveling public as we face the challenge of the Canarsie Tunnel closure.

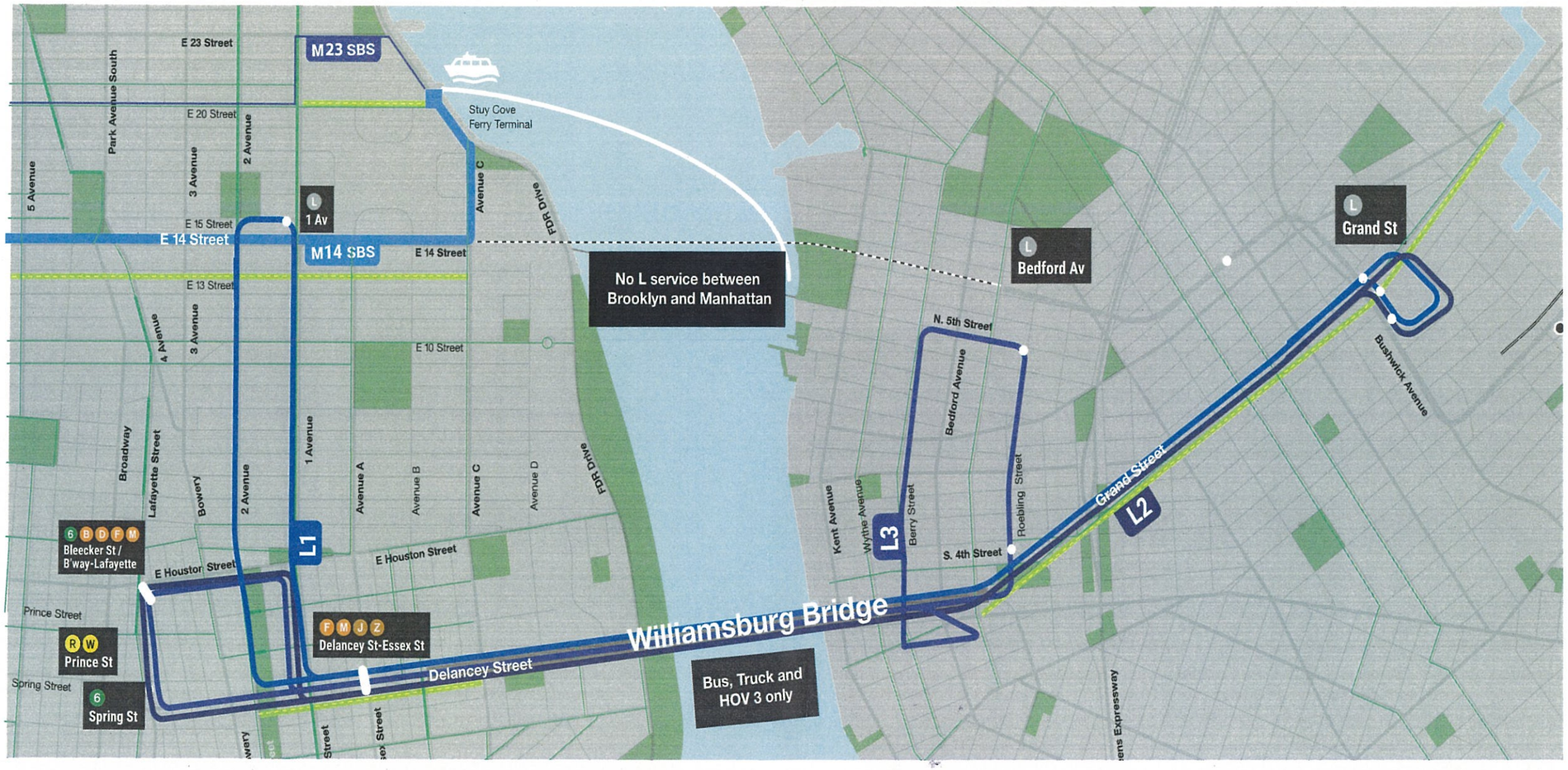
We will be jointly conducting a significant new round of public outreach on these plans in January and February of the coming year. We will be seeking input from all the affected elected officials, community boards, businesses, civic groups, institutions, and everyday New Yorkers. We will need your help as we finalize our plans and make some tough decisions.

But we will also intend to stay on track to make the changes I have just described over the course of the year ahead. This will be important to give us a chance to work out any kinks—and deliver some great mobility and safety improvements. Understanding some of the timing may still change, we plan to install bike lanes on Delancey Street this spring. The treatments on 13th Street and 14th Street and on Grand Street in Brooklyn will be installed in late summer or early fall. And SBS on 14th Street will commence in late 2018 or early 2019.

Thank you for inviting me to testify today and I would now be happy to answer any questions.

L Train Mitigation

Cross-River Transit Operations



M14 SBS
(Overlaid on top of M14A & M14D)

Bus Route L1:
Grand St. to 1 Av/15 St.
(*Late Night*) M14SBS & L1 Combined; no Ferry

Bus Route L2:
Grand St. to SOHO)

Bus Route L3:
Bedford Av to SOHO)

New Bike Lanes

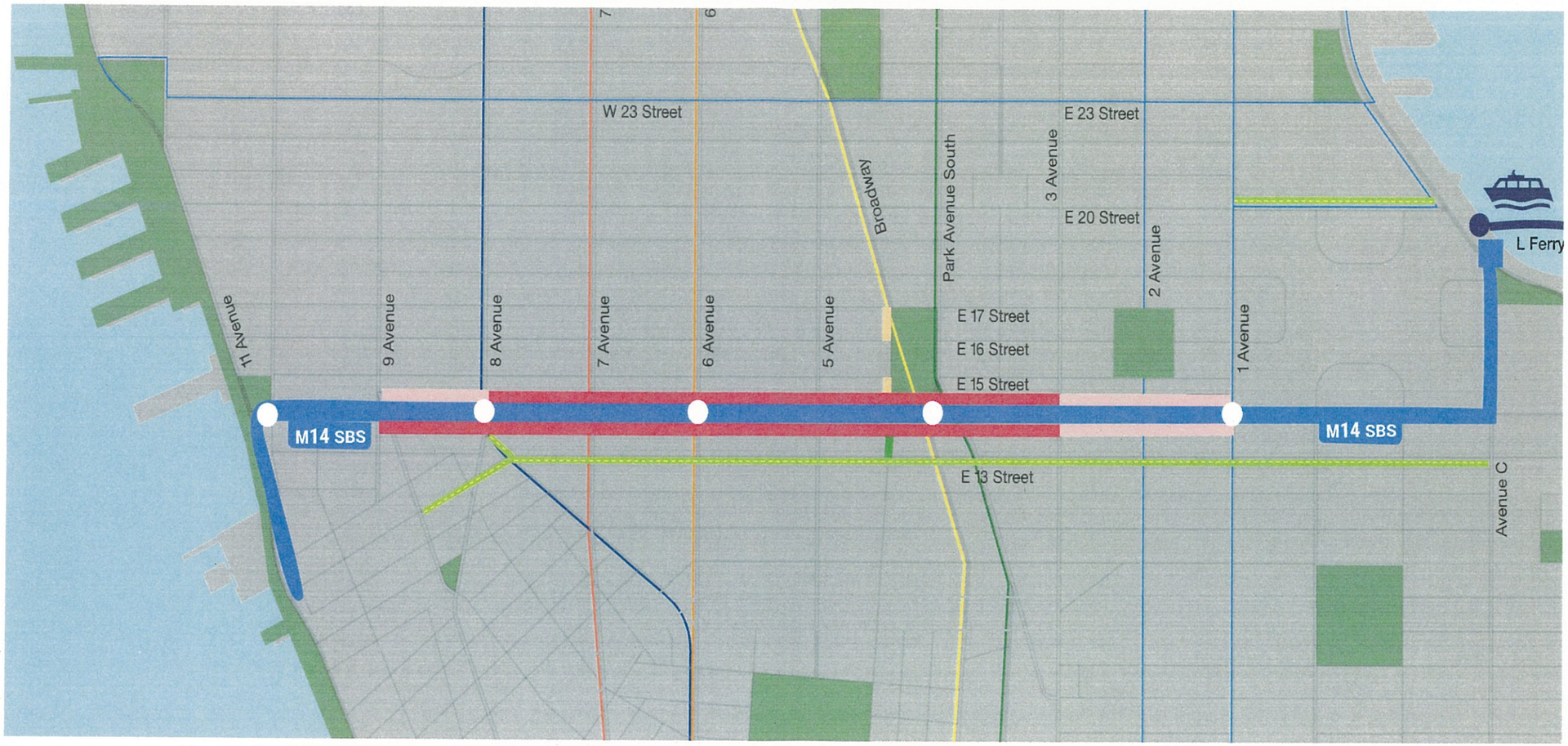
Existing Bike Lanes

NYC
Bill de Blasio
Mayor

NEW YORK CITY DOT
Polly Trottenberg
Commissioner

L Train Mitigation

Crosstown Corridor Improvements



M14 SBS
(Overlaid on top of M14A & M14D)

Busway
(Bus & Local Delivery only)

Bus Lane
(with Regular Traffic Lane)

New Bike Lanes

New Bike Parking Hub

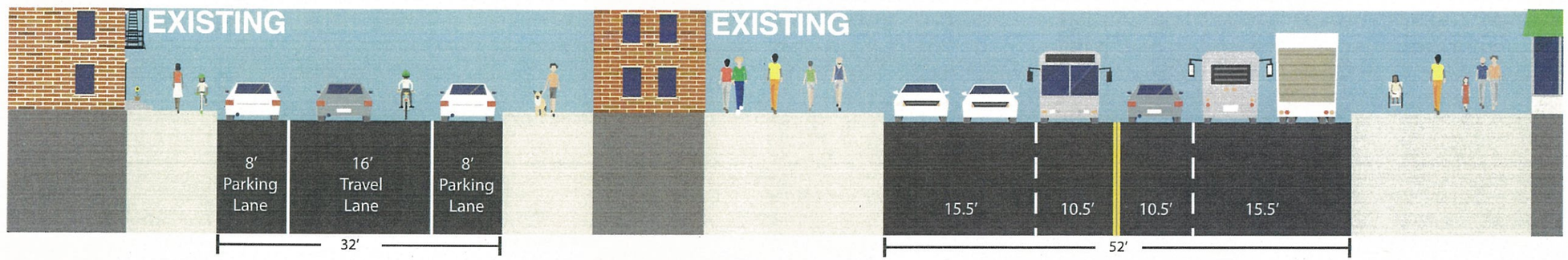
New Pedestrian Space (Street closed)

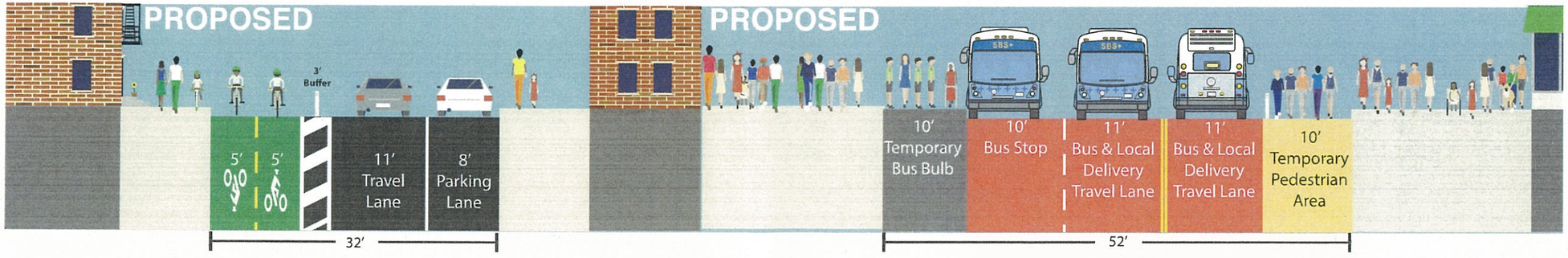
Ferry
Free transfer to/from MTA Ferry w/SBS ticket

NYC
Bill de Blasio
Mayor

NEW YORK CITY DOT
Polly Trottenberg
Commissioner

L Train Mitigation:
Bus & Bike Improvements
13th Street & 14th Street





13TH STREET **14TH STREET**

Bill de Blasio
Mayor

Polly Trottenberg
Commissioner

FOR THE RECORD

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Gale A. Brewer, Borough President

Testimony of Manhattan Borough President Gale A. Brewer New York City Council Committee on Transportation Oversight: Mitigation Strategies During the Closure of the L-Train

December 14, 2017

My name is Gale Brewer, and I am the Manhattan Borough President. Thank you to Chair Rodriguez for scheduling today's oversight hearing to discuss the upcoming closure of the L-train.

The damage done to the Canarsie tube following Hurricane Sandy will force an unfortunate but necessary shutdown of L-train service between Bedford Avenue in Williamsburg and 8th Avenue in Manhattan. This, in turn, will cause a massive headache for the 300,000 daily commuters who rely on the L-train.

Of particular concern to me is the impact this closure will have on the 50,000 daily commuters who rely on L-train service to travel crosstown in Manhattan alone, between the 1st and 8th Avenue stops. These commuters will need to find new ways to travel across town, ideally without contributing further congestion to 14th Street, which is already one of our borough's most clogged corridors.

Yesterday, the MTA and DOT held a conference call to brief elected officials on the beginnings of a mitigation plan to keep people moving across 14th Street and elsewhere during the L-train closure. I am encouraged by several of the thoughtful proposals put forward. I'd like to provide my thoughts on some of these proposals below:

Addition of 200 New Buses: The MTA has announced they plan to introduce 200 new buses into its network to help accommodate commuters during the L-train shutdown. Adding this volume of buses seems necessary given the circumstances, but I encourage New York City Transit to look seriously into ensuring a large portion of these new buses are electric-powered vehicles. If even a majority of these new buses are diesel-powered, it will work counter to the city's stated emission reduction goals.

High Capacity Bus Lanes: Additionally, 200 new buses on our streets won't do anyone any good if these buses are not able to move along at reasonable speeds. In anticipation of the enhanced congestion on 14th Street as a result of the L-train's closure, the MTA announced plans to create a "Bus Way," along the street that will run from 3rd to 8th Avenues. The "Bus Way" will limit, to some level, private vehicular traffic along the route. I am supportive of allowing buses to run unimpeded by massive amounts of private vehicular traffic in this way. However, to make this work, we must make sure this "Bus Way" truly prioritizes bus service over private vehicular traffic. We will of course need to provide exceptions for Access-A-Ride and other types of accessible vehicles, but as

DOT Commissioner Trottenberg herself pointed out on the call yesterday, the more exceptions we make to this rule for other types of vehicles, the slower bus traffic will be.

Bike Lanes: While many transportation advocates have advanced the idea of installing separated bike lanes along 14th Street, DOT has said this is likely incompatible with plans for the "Bus Way" and increased space for pedestrians as discussed above. Instead, the agency is proposing creating a two-way separated bike lane along 13th Street. This seems like a reasonable compromise to accommodate the greatest number of bikers, pedestrians, and bus riders possible, but it has to be planned with a great deal of community input as 13th Street is home to many uses. This bike lane will also be the first east-to-west protected bike lane spanning the majority of the width of Manhattan, which is a long overdue development. I hope to see a more comprehensive plan for installing protected bike lanes at regular intervals throughout Manhattan to help provide for safer crosstown routes.

New Ferry Routes: I am pleased that the MTA is working with NYCEDC to install a new ferry route connecting Williamsburg in Brooklyn to Stuyvesant Cove in Manhattan, and that a new bus route will help connect commuters to subways. I have long advocated for such a route, which will provide a crucial connection between Williamsburg and the East Side of Manhattan. I want to reiterate my support for providing for a free transfer between this new ferry route and connecting buses and subways. Not doing so may make this new travel option cost prohibitive for many.

Need for Continued Community Input & Transparency: For most of this process, I have been greatly encouraged by the opportunities for community input provided thus far by the DOT and MTA in regards to the L-train's closure and the impact it will have on 14th Street and the surrounding areas. Over the course of this past year, my office has worked with the MTA and DOT, along with many other elected officials who represent the 14th Street corridor, to host two workshops meant to solicit community feedback into mitigation plans during the L-train closure. These workshops, which were both well attended, helped signal to the community at large that the agencies were listening to and appreciating the concerns of commuters.

As the shutdown looms closer, however, I can't stress enough the importance of providing more frequent opportunities—in the form of briefings, workshops and public hearings—to ensure our offices and our constituents are kept abreast of the latest proposals and developments. The last of the workshops mentioned above was held in early June of this year. For the intervening six months, concerned commuters and elected officials have been left in the dark, wondering what plans, if any, were developing to address the looming shutdown.

Now that the MTA and DOT are coordinating and have put forward proposals, I hold them to their word that we can expect hearings and workshops on aspects of these plans—including opportunities for public input—in January and February of 2018. I have already informed the agencies that I plan to work diligently to ensure these hearings happen as scheduled—the public can't afford to wait an additional 6 months to learn more about mitigation plans. April 2019 will be here before any of us know it.

Thank you again for holding this hearing. I look forward to working with the members of the Transportation Committee, relevant city agencies, and the public to ensure the L-train's closure unfolds as smoothly as possible.

STREETSPAC

New York City Council Committee on Transportation Hearing
December 14, 2017
Testimony of Eric McClure, Executive Director, StreetsPAC

While the plan released yesterday by the MTA and the New York City Department of Transportation is a significant step forward in addressing the transportation crisis that will be created by the 15-month shutdown of the Canarsie Tubes beginning in 2019, it needs to go farther. Our hope is that this is merely an opening bid that will be revised and made stronger over the coming months.

For starters, we believe that buses running across the Williamsburg Bridge should have a dedicated, physically separated lane, discreet from trucks and turning cars. In order to move 70 buses with 3,800 passengers per hour across the bridge, they must be able to travel unencumbered by other vehicles.

In addition, the bus approaches to the bridge must be dedicated and protected. While HOV3 restrictions are absolutely necessary, we have deep concerns about enforceability of those restrictions, and would like to see a detailed enforcement plan.

Furthermore, we believe that occupancy restrictions on the bridge should be in place 24/7, as commuting patterns and timing will likely evolve during the shutdown. The same is true for bus-only restrictions on the 14th Street "Core Busway," which should be extended well beyond rush hours. We are certain to see major increases in for-hire vehicle traffic along the affected route, the effects of which will only be mitigated by dedicating space for much more efficient buses.

We also need to better understand how bus loading and, especially, unloading, will work. During peak traffic of 70 buses per hour, the potential for bottlenecks caused by passenger entrance and egress will be high. Will bus stops be extended along the route? What accommodations will be in place to speed passenger movement? This is an important detail.

The added ferry service and enhanced biking infrastructure outlined in the plan will help around the margins. However, we have deep concerns about the ability of the G, J, M and Z lines to absorb the 160,000 to 180,000 displaced regular L riders that the MTA and NYCDOT expect on those routes. While extended G trains and more frequent service will help, as will new free transfers and station enhancements, we're skeptical about the ability of existing East River subways to fully accommodate the extra passengers. In case anyone hasn't noticed, the subway system hasn't been working terribly well lately, without the huge added challenge of the L shutdown.

Speaking of station enhancements, the MTA should take this opportunity to make all stations affected by the shutdown ADA compliant. To not do so is a big missed opportunity.

We applaud what seems like a pretty significant plan for public outreach and engagement. That's critical. The shutdown of the L train is going to cause significant hardship for many people for an extended period of time, and giving affected riders plenty of opportunity to weigh in, and vent, will help ease the pain.

And finally, the effects of the L shutdown would be additionally mitigated if we were to have a congestion-pricing plan in place. That needs to happen, and soon.

BROOKLYN CHAMBER OF COMMERCE | The Brooklyn Alliance | BROOKLYN ALLIANCE CAPITAL

December 14, 2017

Written testimony submitted by the Brooklyn Chamber of Commerce before the New York City Council Transportation Committee, regarding T2017-6087 and Res 1443-2017

Good Morning Chair Rodriguez and members of the Transportation Committee:

My name is Chris Lenard, Vice President for Membership at the Brooklyn Chamber of Commerce, and I am delivering testimony on behalf of Andrew Hoan, President and CEO of the Brooklyn Chamber.

With over 2,000 active members, the Brooklyn Chamber is the largest and # 1 ranked Chamber of Commerce in New York State. We promote economic development across the borough of Brooklyn, as well as advocate on behalf of our member businesses. The Brooklyn Alliance is the not-for-profit economic development affiliate of the Brooklyn Chamber, which works to address the needs of businesses through direct assistance programs. Brooklyn Alliance Capital is the third affiliate of the Brooklyn Chamber and provides loans to immigrant and minority-owned small businesses.

As the leading voice of the Brooklyn business community, we applaud the NYC Council's Committee on Transportation for holding today's hearing which seeks to solicit feedback from stakeholders on reducing the impact of the
shutdown, while minimizing pollution at the same time. We appreciate the opportunity to share our thoughts on these issues.

T2017-6087 - Mitigation Plans for the 2019 L Train Tunnel Closure

From Canarsie, to Bushwick, to Williamsburg, L train ridership is diverse and dependent on the train to get to work, school and doctor's appointments etc. In addition, the local businesses along the L line are at risk, since they are heavily dependent on it to maintain brisk foot traffic.

Earlier this year, the Brooklyn Chamber collaborated with the North Brooklyn Chamber to conduct a survey of small businesses along the L train line in North Brooklyn to gauge how they may be impacted by the shutdown. According to this survey, 40 percent of the businesses expected a loss of up to 50 percent. In addition, 75 percent mentioned that their employees rely on the L train to get to their places of work.

We recommend the following to mitigate the impacts of the L line closure:

- Provide tax incentives or relief that will help Brooklyn businesses keep up with already high operational costs in the face of potential decreased sales
- Additional cars on both elevated and non-elevated lines, including the J, M, Z, and G trains
- Additional electric buses to provide replacement service along the L train route
- Funding for an ombudsman for small business services along the L train route

Res 1443-2017 - Resolution calling upon the Governor and the Metropolitan Transportation Authority to commit to an expeditious transition to an electric bus fleet and to use electric buses as a robust part of its replacement service during the upcoming L train shutdown

The Brooklyn Chamber also supports Resolution 1443, aimed at reducing the risk of increased pollution, especially in areas that already have unusually poor air quality. A 2015 report published by the New York City Department of Health, about how community conditions affect our physical and mental health, found the asthma hospitalization rate among children ages 5 to 14 in East New York and Starrett City was said to be higher than the other Brooklyn and citywide rates. Further, the report stated that the rate of avoidable adult asthma hospitalization in East New York and Starrett City was higher than the other Brooklyn and citywide rates.

During the 15-month shutdown of the L train, there will be a significant increase in car and bus traffic, which will generate higher carbon emissions in neighborhoods along the L line. This will undoubtedly put the more than 200,000 daily commuters who take this train at risk of developing, or making worse, poor health conditions directly related to air quality, such as asthma. This resolution represents a responsible approach to protecting the health of residents, by transitioning to electric buses during the shutdown, so as not to exacerbate what will be an already challenging situation.

This approach would also be in line with a key component in Mayor de Blasio's OneNYC Plan to have the cleanest air quality compared to any other U.S. city by 2030. In this plan, Mayor de Blasio will focus on developing a comprehensive plan to create the largest electric vehicle fleet of any U.S. city, cutting municipal vehicle emissions in half by 2025 – and 80 percent by 2035 – and serving as a model for the private sector and other 21st century cities in fighting climate change. Res. 1443 is a timely call for action in terms of expediting and expanding implementation of our air quality goals, and should be enacted.

On behalf of the members of the Brooklyn Chamber of Commerce, thank you for the opportunity to testify on this matter. We look forward to working with you and your colleagues to create an effective strategy that will reduce the potentially negative impact of the L train shut down for businesses and residents, and also reduce pollution in the process.

AH/cl

Concerning the L Train Shutdown

by Stephen Bauman, sbauman@abt.net

Dwight D. Eisenhower became Asst. Chief of Staff in Charge of War Plans in March 1942. He was appointed Commander of the European Theater of Operations by June 15th. His assignment was due to the war plans he produced in 3 months.

The MTA announced a possible L Train shutdown in January 2016. They have just produced operational plans for that shutdown after 23 months. This puts them 20 months behind Eisenhower's pace.

It's easy to understand the MTA's sloth in devising contingency plans. There are no viable alternatives to handle the L Train's volume. The shutdown will affect L Train riders who don't cross the river. Peak L Train service levels are to be reduced 62.5% in Brooklyn. L Train riders, whose travels are limited to Brooklyn, will notice the difference – less frequent and more crowded trains.

The L Train operates 20 packed trains into Manhattan during the peak hour. The plan that has been presented hopes that 20% of the riders will avoid the subway for the duration. That still leaves 16 additional trains that must be provided on other lines to accommodate L Train riders going into Manhattan.

The promised increased G Train service does not count in this total because the G Train does not enter Manhattan. New transfers are proposed to the 3 between the Livonia and Junius stations and to the 7 between the 21st St and Hunters Point Blv stations. However, no additional service is proposed for these routes. Nor is there likely to be any. Peak service is limited by the number of available trains. The new R179 trains won't fit on these IRT lines.

Additional JMZ service is proposed for entering Manhattan. How many additional trains can these line provide? 18 JMZ trains (6 each) currently operate over the Williamsburg Bridge between 7:45 and 8:45am. There are already 22 F and M Trains operating uptown on the Sixth Avenue local tracks. This leaves room for only 8 additional M Trains, whether they terminate on the Queens Blv or Second Avenue Lines.

A total of 26 trains per hour would now be traveling over the Williamsburg Bridge. This would equal the Williamsburg Bridge's maximum service level that was obtained back in 1954. That service level wasn't limited by the signal system or terminal capacity; it was limited by electrical power constraints.

The proposal is not viable because it provides only 50% of the required service for entering Manhattan. The shortcomings of closing the tunnel were as obvious 23 months ago as they are today. These shortcomings should have convinced the MTA to pursue other alternatives.

The Canarsie Tunnels are not the only infrastructure in need of rehabilitation. There are the Hudson River Tunnels in and out of Penn Station. Nobody is suggesting they be closed because too many people would be inconvenienced. Only 200,000 riders use these tunnels daily compared to 265,000 riders who use the Canarsie Tunnels.

The solution for rehabilitating the Hudson River Tunnels is to build new tunnels, divert trains to them, rehabilitate the existing tunnels and wind up with more infrastructure than is currently available. This technique has also been applied to replacing the Mario Cuomo, Goethals and Kosciuszko Bridges. Twin spans, each capable of handling the existing traffic volumes, are replacing the old bridges. The new spans are built before the old bridge is demolished. This is more expensive than closing the existing bridge, demolishing it and building a replacement in its place. Daily, only 180,000 vehicles use the Kosciuszko, 79,000 use the Goethals and 140,000 use the Mario Cuomo vs. the 265,000 daily riders who use the Canarsie Tunnels.

Clearly, the number of people adversely affected isn't what drives the decision to avoid closure. Who the people are and where they live also plays a more important role.

Those affected by closure incur a cost for their inconvenience. Approximately 400,000 people use the L Train on workdays and half that number on weekends. It's estimated that each journey will be at least 30 minutes longer.

If each person were compensated at minimum wage, it would total $1.15 billion over the 15 month closure. Not included is the cost to lost business by the many attractions in the L Train service area. The dollar cost to those affected would have covered the cost of a new tunnel that would have avoided closure. The money saved by the MTA by not building a new tunnel will have been shifted to those affected by the Canarsie Tunnel closure. The same amount money will have been spent. The difference is that additional infrastructure will not have been built and the rehabilitated Canarsie Tunnel will at best be no better than what existed before Sandy.

ENERGY VISION 138 East 13th Street New York, NY 10003
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NYC City Council Committee on Transportation Hearing on L Train Shutdown and Electric Buses

City Hall, December 14, 2017

Testimony by Phil Vos, Project Manager, Energy Vision
Email: vos@energy-vision.org Phone: 646-207-3785

My name is Phil Vos. I'd like to thank the Chair and the Committee on Transportation for this opportunity to testify on behalf of Energy Vision, a New York City-based non-profit environmental organization. Through public education, research and analysis, EV advocates for the use of non-petroleum, low-carbon transportation fuels, particularly in heavy duty vehicles like trucks and buses. Founded in 2007, Energy Vision has become recognized nationally and internationally as a leading independent expert on alternative fuels for heavy fleets.

Much of the discussion around greening fleets centers on electrification. While electrification will no doubt play an important role, today I will focus on another, quickly-emerging technology that is already being used by thousands of heavy vehicles in American fleets. It is deployable in NYC now, in vehicles that are already on the road and using fueling infrastructure that is already in place. That strategy is **organic-waste-derived biomethane**, sometimes called "renewable natural gas".

Many people are familiar with the idea of "landfill gas." The same kind of methane-rich gas is captured around the country at wastewater treatment plants, and in purpose-built "anaerobic digesters" that process animal manures or food waste. All this gas can be refined to pipeline quality biomethane and used just like geologic natural gas, including as vehicle fuel. But greenhouse gas (GHG) emissions from biomethane are 40% or more lower than from geologic natural gas, and 70% or more lower than from diesel fuel. Depending on the source, biomethane can actually be "net-carbon negative," meaning its production prevents more GHG emissions than result from its use. Such a fuel could help NYC move rapidly toward its 80x50 GHG emissions reductions goal.

At least 800 buses now in the MTA fleet use compressed natural gas, or "CNG," as fuel. Biomethane, which is available on the market, can be used in any natural gas vehicle with no modification, and can be transported through and dispensed from natural gas infrastructure that already exists. Through a change in procurement practices, those MTA buses could switch over to biomethane, immediately reducing their emissions by 40% or more. This has already happened with the CNG bus fleet in Santa Monica; in Los Angeles, LA Metro is converting over 200 CNG buses to biomethane in parallel with testing electric models. UPS has chosen to fuel hundreds of tractor trailers and other trucks in its fleet using biomethane.

And if those MTA buses were fueled with biomethane *and* equipped with new "near-zero" natural gas engines, their emissions of street-level pollutants like nitrogen oxides and particulate matter would be reduced to, or even significantly below, the most stringent EPA regulations.

The L train shutdown represents an opportunity to pilot biomethane in surface transit in New York City. The Spring Creek Bus Depot on Flatlands Avenue, not far from the L train terminus at Rockaway Parkway, houses natural gas buses now. If buses from that depot served as L-train shuttles, and that depot were to convert to biomethane, even on a trial basis, it would allow MTA to become the first New York fleet to utilize this ultra-low-emissions solution.

Biomethane could also be deployed in the City's natural-gas capable municipal fleets, which have an even more ambitious GHG reduction target of 80x35.

Biomethane represents a long-term, "closed-loop" solution for New York City. With appropriate investment and building on existing infrastructure, the City's own huge waste streams—including residential and commercial food waste and wastewater biosolids, as is being piloted at Newtown Creek—could be converted to vehicle fuel. Such a closed loop is now being used by private waste haulers in Los Angeles, Sacramento and San Francisco.

Biomethane is a proven solution that is available now, and one ready to be deployed in New York City. We encourage the Transportation Committee to consider piloting its introduction during the L train shutdown, either in concert with fleet electrification or as standalone solution.

Thank you for your time and attention.

166A 22nd Street
Brooklyn, NY 11232 NYC-EJA.org

On the ground – and at the table

Testimony to the New York City Council Committee on Transportation
Regarding the 2019 L train shutdown

December 14th, 2017

Good Morning Chairperson Ydanis Rodriguez, and Members of the City Council. My name is Renae Reynolds, and I am here to testify on behalf of the New York City Environmental Justice Alliance (NYC-EJA). Founded in 1991, NYC-EJA is a non-profit citywide membership network linking grassroots organizations from low-income neighborhoods and communities of color in their struggle for environmental justice. NYC-EJA empowers its member organizations to advocate for improved environmental conditions and against inequitable environmental burdens. Through our efforts, member organizations coalesce around specific common issues that threaten the ability of low-income and communities of color to thrive, and coordinate campaigns designed to affect City and State policies – including transportation policies that directly affect these communities.

I would like to thank Councilmember Rafael Espinal for sponsoring the resolution calling on Governor Cuomo and the MTA to commit to an expeditious transition from fossil fuel burning diesel buses to a modern Electric Bus Fleet.

Communities in North Brooklyn are overburdened by heavy vehicular traffic and the emissions they produce. When compared to the rest of Brooklyn and New York City as a whole, the neighborhoods of Williamsburg and Bushwick fare worse in asthma hospitalization rates across all age groups.

Overall increases in asthma prevalence are contributing to growing healthcare costs for New York employers, consumers, and taxpayers. As of 2014, asthma cost the United States $56 billion a year in medical expenses, lost school and work days, and early deaths, according to the CDC. A report from the New York Comptroller in 2014 shows that asthma costs New York a total of $1.3 billion a year.

In 2016 we conducted a community survey in partnership with our member organization El Puente. We found that at certain intersections in North Brooklyn, up to 203 trucks passed through in a 1-hour period. That is a tremendous amount of heavy vehicular activity. Given this context, the response to approaching transit challenges should not be to swap one problem for another. The addition of 200 more diesel-burning buses would do just that, and would not bring us any closer to our Citywide goals of an 80% reduction in green house gas emissions by 2050 or 40% by 2030.

166A 22nd Street
Brooklyn, NY 11232 NYC-EJA.org

On the ground – and at the table

We believe that the 2019 shut down of the L train presents an opportunity to act intentionally by devising a replacement strategy that would fill in the gaps in transit service and also be a part of a long term strategy for reducing vehicular emissions in our city. The City could save on mass transit expenditures while cleaning the air we breathe, reducing oil consumption, and reducing the amount of greenhouse gas emissions by investing in zero-emissions electric vehicle technology.

During Earth Week 2017 Governor Cuomo announced that the MTA would launch a pilot program with 5 Electric buses along the B32 an B39 lines. The MTA should provide updates to the public on the status of the EV pilot. Additionally, the MTA should consider expanding the amount of EV buses proposed in the pilot and find ways to integrate the pilot into the strategic plans for the L train replacement.

The MTA operates 5,700 buses, along 330 routes, making 16,000 stops and serves more than 2 million passengers daily. This is the largest fleet in the nation, which makes it a standard bearer for the US. While it may be tempting to evaluate the viability of investing in Electric Vehicles based on the initial costs of procurement, we must look at the cost savings across the entire life-cycle of the vehicle. Comptroller Scott Stringer recently released another report that cities like Vancouver, British Columbia, Los Angeles and Seattle have made commitments to exclusively purchase zero-emissions buses by 2025. We believe the MTA should also make similar commitments to reduce emissions, and to provide New Yorkers with transportation options that improve public health outcomes rather than worsen them.

Thank you for the opportunity to testify.

Transportation Committee Hearing - CM Espinal
December 14, 2017

Good morning. Thank you for the opportunity to provide public comment today. My name is Maritza Silva-Farrell and I am the Executive Director of ALIGN: the Alliance for a Greater New York. ALIGN is a longstanding alliance of labor, community and environmental justice organizations united for a just and sustainable New York. We work at the intersection of economy, environment, and equity to make change and build movement. We forge coalitions, shape the public debate through strategic communications, and develop policy solutions that make an impact. Our vision for the future prioritizes investment in sustainable energy, the creation of career-track jobs in green industries, and ensuring the health and welfare of every neighborhood, particularly low income communities and communities of color that are disproportionately affected by climate change.

Resolution 1443, which calls on the Governor and the MTA to commit to an all-electric bus fleet, especially in regards to the impending L train shutdown, will help ensure the sustainability of our environment as well as our communities. The neighborhoods that rely on the L train should not have to deal with more dirty buses clogging their streets on top of service disruptions that are a result from chronic underfunding. Trading diesel burning buses for newer, cleaner electric buses will help mitigate the additional strain the L-train shuttles will have on these communities. Cleaner, electric buses are quieter and generate far less emissions than diesel or CNG-powered trucks. This means less greenhouse gas and particulate matter polluting the air, threatening the health of our communities, particularly pedestrians, bus riders, and bus drivers.

At ALIGN we believe electrifying the L train shuttle fleet is a step in the right direction but is still not enough. Only a full transition to an entirely electric fleet of all buses on our streets, including MTA as well as school buses, will ensure a significantly cleaner future for our communities and keep New York on track to meet the Mayor's goal of reducing emissions by 40 percent by 2030. A fully electric MTA bus fleet would save NYC over 575,000 metric tons of CO2 equivalent a year. Even after considering the emissions related to charging the buses, an entirely electric fleet would lead to a net savings of nearly 500,000 metric tons of CO2 equivalent.[1]

Electrifying bus fleets also provides an economic opportunity for the city to generate jobs while also saving money. Electric charging stations for the buses open up a new sector of jobs in green energy. These jobs can be career-track jobs that build skills and prioritize hiring from low income communities and communities of color. In addition to generating more jobs, the city will save money over the life of an all-electric fleet compared with their fleet. When considering

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1 http://www.columbia.edu/~ja3041/Electric%20Bus%20Analysis%20for%20NYC%20Transit%20by%20J%20Aber%20Columbia%20University%20-%20May%202016.pdf

upfront costs, fuel costs, and maintenance costs, electric buses costs just under $40k less annually than diesel-powered buses. Over the 12-year lifespan of a bus, that amounts to just under half a million dollars saved per bus.

Considering the health benefits for workers and community members, the economic opportunity to expand job sectors, and the sustained cost savings, it's clear that an all-electric bus fleet provides us an opportunity to achieve both a more sustainable future as well as a healthier economy and environment for all New Yorkers. Thank you.

TRI-STATE TRANSPORTATION CAMPAIGN

FOR THE RECORD

My name is Emily Provonsha, I am the Data and Policy Analyst for the Tri-State Transportation Campaign, a nonprofit organization advocating for preservation, enhancement and expansion of rail, bus, bike and pedestrian infrastructure in order to ensure our transportation systems improve equity, environmental and economic outcomes throughout the New York tri-state region.

I want to begin by thanking Transportation Chair Ydanis Rodriguez and all your colleagues here for your leadership on this issue.

Improving public transit service and increasing ridership by itself reduces pollution and greenhouse gases—but we can take the work of improving our environment one step further by ensuring that public transit is built on a zero-emissions fleet. As power generation increasingly transitions to renewables, transportation has become the single largest sector for greenhouse gas emissions in the country. Unfortunately, programs and incentives for a similar transition to zero-emission vehicles lag behind those in the power plant sector and are long-range at best. At the same time, electric vehicle use remains challenging in urban areas, where multi-family buildings and a preponderance of rental units means few drivers have ready access to charging stations.

The obvious way to combat the difficulty in transitioning to electric vehicles is to develop and pass policies that encourage agencies and departments to electrify their vehicle fleets. Government procurement can provide the economies of scale necessary to stimulate the electric vehicle sector broadly while also further removing greenhouse gas emissions from government owned vehicles and transit services. And as these vehicles are procured, development and installation of the charging infrastructure necessary to power these vehicles can provide the foundation for further adoption of electric vehicles in both the public and private sectors. What this means it that a wholesale transition of fleet vehicles like buses would not only be the functional equivalent of removing thousands of cars' worth of pollution but also lay the foundation for further adoption of electric vehicles.

Fortunately, EV technology has arrived at a point where, over the lifetime of an electric vehicle, the reduced maintenance costs and longer lifespan as compared with internal combustion engines makes them a cost-effective alternative to polluting vehicles, so we can be both environmentally and fiscally prudent at the same time. And as costs continue to decline, EVs will be, in the long run, cheaper than their fossil fuel-using counterparts. But the push from elected officials to get agencies to change their procurement habits is still necessary, and that's where you come in.

In order to overcome the challenges of electric vehicle adoption as well as combat pollution, reduce greenhouse gas emissions and ameliorate the negative health consequences of both, government agencies and departments must begin planning to procure electric fleet vehicles like buses and develop the charging infrastructure to run them. We need your leadership to do that.

Thank you.

Testimony to the NYC council for Resolution 1443
12/14/17
Elizabeth Winship- Ettinger Ph.D.

Good morning. My name is Elizabeth Winship- Ettinger and I'm a psychologist. My family has been active in grassroots American politics for almost 250 years-- my great, great grandfather Nathaniel Hillyer Eggleston was an abolitionist minister on the Underground Railroad. Nathan Hale, whose statue is nearby, was an American spy in the Revolutionary War for Independence. As a psychologist, I must emphasize that in the face of climate change we have two options -- denial, hopelessness and cynicism, or hope and moral action. Bringing a fleet of electric buses to NYC is a moral action on the side of hope. Choosing more diesel and fracked gas transit represents denial, hopelessness and cynicism, particularly since new buses are desperately needed during the repair of the L train damaged by superstorm Sandy, and most scientists believe superstorms are increasing due to climate change from human fossil fuel consumption. So today I urge you to choose hope and moral action and bring a fleet of electric buses to New York City. Thank you.

Statement by Veronique Hakim, MTA Managing Director
before the New York City Council's Committee on Transportation
Thursday, December 14, 2017 at 10 a.m.

Good morning, Chairman Rodriguez and members of the City Council. I'm Ronnie Hakim, the MTA's managing director. I'm joined today by my colleague Peter Cafiero, chief of Operations Planning at MTA New York City Transit, and I'm pleased to be sharing my time today with Polly Trottenberg, commissioner of New York City's Department of Transportation.

As you may know, MTA and DOT have been collaborating closely since the winter of 2016, when we first announced the Canarsie Tunnel repair project. We've been meeting and discussing our plans for this project extensively since then, and both teams have put in a lot of hard work. I'm proud of our joint efforts to come up with a comprehensive and multi-layered plan, which is what we're here today to discuss.

Repairs began this summer and will necessitate the complete closure of the L Line between Bedford Avenue in Brooklyn and Eighth Avenue and 14th Street in Manhattan, scheduled to begin in April 2019. We know this will be tough on our city, especially for the 225,000 MTA customers who rely on the L every day to travel between Brooklyn and Manhattan. And not just for them. Also for the 50,000 customers who travel solely within Manhattan on the L, and really, for our entire city and its economic vitality. That's why, before I describe our robust plans to mitigate this inconvenience, I want to explain exactly why this work is so vitally necessary.

About five years ago, our subway system was devastated—crippled—by a disaster unlike any in its 113-year history. Superstorm Sandy dumped seven million gallons of corrosive salt water into the Canarsie Tunnel alone, flooding it end-to-end. The tunnel was built in 1924, and wasn't made to withstand that level of flooding. No one thought something like that could ever happen.

The salt water caused significant damage to the tube structure. We're seeing deterioration of track and track ties, and damage to signals and other electrical equipment. We simply must make these critical repairs as soon as possible.

Toward that end, we're hard at work. We've awarded a contract to rebuild the tunnel through a competitive process. Through this process and other negotiations, we selected a contractor who is able to reduce the tunnel outage from 18 months to 15 months—a significant victory for our customers and our city. We'll continue to minimize the tunnel outage by providing substantial incentives for early completion and severe penalties for delays.

We're undertaking one of the most extensive community outreach campaigns in the history of the MTA. Since May 2016, we've held about 40 meetings to discuss plans and preparations for the Canarsie Tunnel repairs, including large community meetings, public workshops, and Community Board presentations. And we'll be out doing more outreach into next year.

We're meeting regularly with affected businesses, property owners, and building representatives in Brooklyn and Manhattan to address issues arising from the project. We're working with adjacent properties to do inspections, place equipment, and coordinate deliveries. We've paid for two temporary bus shelter relocations in Manhattan—at 14th Street and Avenue A and 14th Street and Avenue B—to replace shelters closed due to construction, and we've placed graphic banners around the construction with pictures of what the stations will look like when we're finished.

This project involves far more than rebuilding the Canarsie Tunnel. As part of this project, we will renew and improve 14 subway stations along the L Line, as well as the G, J, and M lines. Many of these improvements will be focused on increasing station capacity before April 2019, so we can accommodate more customers during the repairs. For example, before tunnel repairs begin, we'll improve capacity at the Marcy Avenue, Broadway Junction, and Metropolitan Avenue stations. We'll add stairs at Court Square, and open station entrances at Hewes Street and Metropolitan Avenue.

We'll also take advantage of the closure to improve the L train. We'll add new power substations and Circuit Breaker Houses to enable two additional L trains per hour to travel along the line. We'll make major capacity and accessibility improvements at Brooklyn's Bedford Avenue station and Manhattan's 1st Avenue station. We'll install elevators at both of these stations to make them fully accessible under the Americans with Disabilities Act, while building a completely new entrance at Avenue A in Manhattan.

We'll improve customer circulation and capacity at Union Square by augmenting turnstile capacity and adding a new escalator from the L train platform to the station's mezzanine. We'll upgrade all five L Line stations in Manhattan with improvements such as refurbished stairways and new lighting and painting. We'll revitalize four L Line stations in Brooklyn and one in Manhattan—at Morgan Avenue, DeKalb Avenue, Halsey Street, Bushwick Avenue-Aberdeen Street, and 6th Avenue—by repairing or replacing wall tiles, columns, platform edges, and floors. And we'll introduce Platform Screen Doors—similar to those on the AirTrain—as a pilot program at the L train's 3rd Avenue Station in Manhattan.

Together with New York City, we're working on three categories of mitigations, with added subway, bus, and ferry service. The best choice for most of our customers will be to connect to an alternate subway service, because our city is extremely lucky to have such a robust and redundant system. A full 70 to 80 percent of L train customers are expected to replace their trips in part by using other subway lines, which is why we'll increase service on the G, J, M, and Z lines to every extent possible. For example, we'll lengthen G and C trains to increase capacity. We'll bolster M Line service to run to 96th Street and Second Avenue in Manhattan on weekends and overnights. We'll offer free MetroCard transfers between the G Line's Broadway station and the J, M, and Z lines' Lorimer Street and Hewes Street stations. And we'll offer free MetroCard transfers between the number 3 Line's Junius Street station and the L Line's Livonia Avenue station.

We're working with New York City's Economic Development Corporation to add a new temporary ferry service. We anticipate that this will be a niche market that will meet the needs of about five percent of affected L train customers. This service would travel between North 6th Street in Williamsburg and the soon-to-be-constructed Stuyvesant Cove pier at East 20th Street in Manhattan, where it would connect with the M23 SBS and the new M14 SBS, which I'll discuss more in a moment.

During these repairs, we'll provide an unprecedented level of new inter-borough bus service across the Williamsburg Bridge and across 14th Street, in close coordination with DOT. We anticipate that about 15 percent of affected L train customers will rely on this bus service. We'll add about 200 buses as part of the project, and electric buses will be part of this service. We recently leased 10 All-Electric Buses through a pilot program that will bring both fast-charging and overnight-charging electric buses to city streets by the beginning of next year. This pilot program will inform the planned purchase of 60 All-Electric Buses from 2019 to 2021. Fifteen of these AEBs are currently scheduled for service during the

Canarsie Tunnel repairs—running river-to-river on 14th Street—and we're actively looking for opportunities to increase that number.

We plan to create three new bus routes between Manhattan and Brooklyn over the Williamsburg Bridge during the repairs. In peak hours, we hope to run 70 buses per hour on these routes, or more than one bus per minute. To provide this service effectively, we estimate that buses must be able to complete their one-way trips in around 25 minutes or less. Slower times will hinder our ability to provide frequent service, decrease bus capacity, increase crowding, and lengthen loading times on both buses and at subway stations. They would also almost certainly push commuters into cars—making traffic in Manhattan and on the Williamsburg Bridge even worse. To avoid this, we're working closely with DOT to implement significant street and traffic treatments and other forms of traffic demand management, including HOV 3+ restrictions on the Williamsburg Bridge.

On 14th Street in Manhattan, we'll add M14 Select Bus Service, which is already served by the M14A and the M14D. The M14 SBS will travel between 10th Avenue and a new temporary bus terminal we're building near the Stuyvesant Cove Ferry pier, stopping at current Manhattan L train stations. We plan to run the M14 SBS up to 34 trips an hour in each direction, in addition to the M14A's 8 trips an hour and the M14D's 12 trips an hour. We estimate that buses must be able to complete river-to-river trips in 15 to 20 minutes to provide this service effectively. In order to achieve these times, we'll continue to collaborate closely with DOT to implement all the surface treatments Polly will discuss in a moment.

Council Members, again, this won't be an easy time. Closing this essential tunnel will be a major inconvenience for many of our customers and for our entire city. But we'll deal with it by working to improve L train service as much as possible before and during the repairs, getting in and out of the Canarsie Tunnel as fast as possible, and by giving our customers plenty of options. Our service—and our city—will be stronger for it. Thank you again for inviting me to speak today. Now, my colleagues and I are happy to answer any questions you may have.

Sierra Club's Testimony to NYC Council on Resolution 1443
for Electric Buses in the MTA
December 14, 2017

Testimony submitted by:
Kathleen Benedetti-Fisher, NY Lead Electric Vehicle Representative

Sierra Club joins our allies here today to ask the New York City Council to pass Resolution 1443, calling on the MTA to make a swift transition to zero emission electric buses.

New York City is rated among the top 25 most polluted cities in the American Lung Association's State of the Air report. More than 2 million people in the New York Metropolitan Area have asthma including nearly half a million children.

New York employers, consumers, and taxpayers pay a high healthcare cost for these pollutants. As of 2014, asthma cost the United States $56 billion a year in medical expenses, lost school and work days, and early deaths, according to the CDC. A report from the New York Comptroller in 2014 shows that New York is not immune to those costs. In 2014, asthma cost New York a total of $1.3 billion annually.

Fuel and maintenance costs make diesel buses much more expensive than zero emission electric buses.

Cost per gallon equivalent of fueling :
Diesel $2.63 / fracked gas $2.12 / diesel hybrid $1.97 / electric $1.29

Cost of maintenance:
$9075 , $1.00 / mile diesel VS $1779 , $.20/ mile electric

Emissions:
3000 grams per mile for diesel / 2800 for fracked gas / 2300 for diesel hybrid / and 650 for electric

Electric buses, whose production has ramped up significantly as a global response to climate disruption, have come down in price by hundreds of thousands each in the last year, and now offer the lowest total cost of ownership. Lifecycle global warming emissions from battery electric buses are more than

70% lower than those from fracked gas or diesel according to Union of Concerned Scientists.

This transition also needs to be a just one that includes the re-training of current New York workers.

Cities like Los Angeles, Seattle, Worcester, and Philadelphia and countless cold weather cities in Europe have already made the commitment to zero emission buses. The MTA's current electric bus pilot is not its first. In a fleet of 5700, a 10-bus pilot is too small and doesn't go far enough.

We need a shorter pilot and bigger commitments. The Sierra Club is calling on the state's largest Transit Agency, the MTA, to make a serious and speedy switch to an electric fleet. We are calling for the purchase of 200 new ZEBs by 2019 and all new buses to be electric by 2030, bringing the fleet into alignment with state and local goals. The transition we're demanding will allow the MTA to monitor and adjust.

Hurricane Sandy, which cost New York businesses billions in damages and lost revenue, showed us just how vulnerable our communities are to the effects of climate disruption, and our transportation sector is only adding to this pressure. That's why over 100 New York City business owners to signed a letter of support for a switch to clean, zero emission buses.

Extracting and burning oil creates more than 40% of the climate-disrupting emissions in the U.S. And for those of us who believe in climate change… we have to summon courage to acknowledge the urgency of the situation. The urgency of key transitions like zero emissions transit stems from the fact that from the inertia of our climate system, it doesn't respond quickly. With a 2.5 mile deep ocean and almost 2 mile thick ice sheets…it takes a long time for the changes we make to take effect.

Electric buses are a crucial piece of the solution, and we don't have time to wait.

Zero-Emission Bus Information

fueling and maintenance costs, specifications of available bus models, emissions, and funding opportunities

Fueling costs[1]

Fuel type	Cost per gallon equivalent[3]
Diesel standard	$2.63
CNG standard	$2.12
Diesel-hybrid standard	$1.97-$2.37[4]
Full electric	$1.29

Maintenance costs[2]

Bus type	Average cost
Diesel standard	$9,075 / year
	$1.00 / mile
Full electric	$1,770 / year
	$0.20 / mile

GHG emissions comparison[5]

Fuel type	Emissions factor (g/mile)[6]
Diesel standard	~3,000
CNG standard	~2,800
Diesel-hybrid standard	~2,300
Fuel cell	~1,550
Full electric	~650

Financing options

Bus manufacturers may include financing options as part of their sales processes. Proterra and BYD, for example, have offered packages where agencies can purchase the bus platform as a capital expenditure and lease the battery as a general operating expenditure. Proterra has also offered 100% financing.

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[1] Fuel prices current as of July 2015, from Dept. of Energy's AFDC fuel price database: http://www.afdc.energy.gov/fuels/prices.html

[2] Source: http://www.udel.edu/V2G/resources/V2G-Cost-Benefit-Analysis-Noel-McCormack-Applied-Energy-As-Accepted.pdf

[3] To standardize fuel volumes for accurate comparison, each is converted to its equivalent in gallons of gasoline (GGE). For more information on these conversion factors: http://www1.eere.energy.gov/vehiclesandfuels/epact/fuel_conversion_factors.html

[4] The cost of fueling a hybrid depends on the average fuel economy of the model. The range used here assumes that average is somewhere between 10%-25% which is representative of buses tested in a variety of conditions as per these reports (source 1, source 2).

[5] Emission data from "Urban Bus GHG Emission Comparison," *Advanced Clean Transit*, California Air Resources Board, May 2015 http://www.arb.ca.gov/msprog/bus/workshoppresentation.pdf

[6] See the following report for more information on GHG emissions factors: http://www3.epa.gov/otaq/consumer/420f08024.pdf

SIERRA CLUB

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. 1443

☑ in favor ☐ in opposition

Date: 12-14-17

(PLEASE PRINT)

Name: Karen Cornelio

Address: —

I represent: Sierra Club

Address: —

must leave early

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Gaia Cipriano

Address: _____

I represent: MTA / NYCT

Address: _____

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: 12/14/2017

(PLEASE PRINT)

Name: Manhattan Borough President Gale Brewer

Address: 1 Centre Street, 19th fl.

I represent: by Sheila Warren, Director of Policy

Address: _____

Please complete this card and return to the Sergeant-at-Arms

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☒ in favor ☐ in opposition

Date: 12-14-17

(PLEASE PRINT)

Name: Emily Provonsha

Address: 350 W. 31st Street #805

I represent: Tri-State Transportation Campaign

Address: (same as above)

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: 12/14/17

(PLEASE PRINT)

Name: Kate Slevin

Address: One Whitehall

I represent: Regional Plan Association

Address: _____

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. L-TRAIN Res. No. _____

☐ in favor ☐ in opposition

Date: 12/14/17

(PLEASE PRINT)

Name: ERIC McCURE

Address: 423 4TH ST. BROOKLYN 11215

I represent: STREETSPAC

Address: 17 BATTERY PL., #204 NY NY 10004

Please complete this card and return to the Sergeant-at-Arms

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: STEPHEN BAUMAN

Address: 13810 FRANKLIN AV FLUSHING

I represent: SELF

Address: _____

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Eric Beaton

Address: Dep. Comm Transportation Planning and Management

I represent: NYC DOT

Address: _____

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Rami Metal

Address: Dir. of Strategic Engagement

I represent: NYC DOT

Address: _____

Please complete this card and return to the Sergeant-at-Arms

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Polly Trottenberg

Address:

I represent: NYC DOT

Address:

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. T2017-6087 Res. No. 1443-2017

☐ in favor ☐ in opposition

Date: 12/14/17

(PLEASE PRINT)

Name: Chris Lenard

Address: 335 ADAMS STREET, SUITE 2700

I represent: BROOKLYN CHAMBER OF COMMERCE

Address: 335 ADAMS STREET, SUITE 2700

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: PETER WALTERSPIEL

Address: 252 1st Ave NYC 10009

I represent: STUYTOWN

Address: 252 1st AVE

Please complete this card and return to the Sergeant-at-Arms

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☒ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: STEVE FABRIKANT

Address: 74 Jaysen Lane Wtt NY 11977

I represent: SIERRA CLUB

Address:

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: 12/14/17

(PLEASE PRINT)

Name: ADAM LERMAN

Address: 678 DEAN STREET, APT 1, BROOKLYN, NY 11238

I represent:

Address:

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. 1443 Res. No. _____

☒ in favor ☐ in opposition

Date: 12/14/17

(PLEASE PRINT)

Name: Renae Reynolds

Address: 20-45 Seagirt Blvd Apt 3F Far Rockaway NY 11691

I represent: The New York City Environmental Justice Alliance

Address: 166A 22nd street Bk NY 11232

Please complete this card and return to the Sergeant-at-Arms

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☒ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Dr Elizabeth Winship-Ethinger

Address: 211 W 100th St 5D

I represent: private citizen

Address: _____

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. 1443

☑ in favor ☐ in opposition

Date: 12-14-17

(PLEASE PRINT)

Name: Kat Fisher

Address: _____

I represent: Sierra Club

Address: _____

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. 1443

☒ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Maritza Silva-Farrell

Address: _____

I represent: ALIGN

Address: _____

Please complete this card and return to the Sergeant-at-Arms

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. 1443

☐ in favor ☐ in opposition

Date: 12/14/17

(PLEASE PRINT)

Name: PHIL VOS

Address: 488 7th ST. BROOKLYN 11215

I represent: ENERGY VISION

Address: 138 E 13th ST, NYC, 10003

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Ronnie Hakim

Address: 2 Broadway

I represent: MTA Managing Director

Address: _____

THE COUNCIL
THE CITY OF NEW YORK

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

☐ in favor ☐ in opposition

Date: _____

(PLEASE PRINT)

Name: Pat R Cat-Ro

Address: 2 Broadway

I represent: MTA NYC Transit

Address: Chief Operations Planning

Please complete this card and return to the Sergeant-at-Arms