COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 1 2 3 CITY COUNCIL 4 CITY OF NEW YORK 5 ----- Х 6 TRANSCRIPT OF THE MINUTES 7 Of the 8 COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND 9 WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 10 ----- Х 11 September 14, 2021 12 Start: 10:19 a.m. Recess: 2:25 p.m. 13 14 HELD AT: Council Chambers - City Hall 15 BEFORE: Ydanis Rodriguez, Chairperson for the Committee on 16 Transportation 17 Justin Brannan, Chairperson for the Committee on 18 Resiliency and Waterfronts 19 James F. Gennaro, Chairperson for the Committee on 20 Environmental Protection 21 COUNCIL MEMBERS: 22 Selvena N. Brooks-Powers 23 Fernando Cabrera Ruben Diaz, Sr. 24 Robert F. Holden Peter A. Koo 25 Stephen T. Levin Mark Levine

1	COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 2
2	COUNCIL MEMBERS (CONT.):
3	Carlos Menchaca
4	I.Daneek Miller Antonio Reynoso
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COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 3 2 A P P E A R A N C E S 3 John Scrivani Commissioner of New York City Emergency 4 Management 5 Jainey Bavishi Director of Mayor's Office of Climate and 6 Resiliency 7 Vincent Sapienza Commissioner of Department of Environmental 8 Protection 9 Angela Licata Deputy Commissioner of Department of 10 Environmental Protection 11 Tasos Georgelis Deputy Commissioner of Department of 12 Environmental Protection 13 Edward Grayson Commissioner of Department of Sanitation 14 Gregory Anderson 15 Deputy Commissioner of Department of Sanitation 16 Melanie LaRocca Commissioner of Department of Buildings 17 Ann Marie Santiago Department of Housing Preservation and 18 Development Deputy Commissioner of Enforcement 19 and Neighborhood Services 20 Kim Darga Associated Commissioner of Preservation 21 Leon Hayward Transportation Deputy Commissioner for Sidewalks 2.2 and Inspection Management 23 Rebecca Zack Assistant Commissioner for Intergovernmental and 24 Community Affairs 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 4 2 A P P E A R A N C E S (CONT.) 3 Leslie Wolf Executive Director of Capital Program Planning Leslie Wolf 4 5 Kevin Woods FDNY Chief Deputy Assistant 6 Raymond Spinella 7 NYPD Chief of Operations Michael Clarke 8 NYPD Director 9 Demetrius Crichlow MTA Senior Vice President of Subways New York 10 City Transit 11 Matt Best Chief Engineer for MTA Construction and 12 Development 13 Steven Loehr Director of MTA Construction and Development 14 Lisa Daglian 15 Executive Director of the Permanent Citizens Advisory Committee to the MTA or PCAC 16 Hayley Gorenberg 17 Legal Director of New York Lawyers for the Public Interest 18 Tyler Taba 19 Fellow at the Waterfront Alliance 20 Chris Bellovary Staff Attorney with Riverkeeper 21 Carlos Castell Croke 2.2 Associate for New York City Programs at the New York League of Conservation Voters 23 24 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 5 2 CHAIRPERSON RODRIGUEZ: [GAVEL] Good morning 3 everyone. Before I get into the business of today's hearing, I would like to express my solidarity to the 4 family and to family for save street in 5 transportation as we've been dealing with the last 6 7 crisis in New York City. 8 Something that we know even when we will defeat 9 COVID-19, the level of crisis in the City of New York is an epidemic that must bring all of us to also 10 11 commit to the 250. More than 250 last year, it's a 12 big number. So, I hope again that as we are going to 13 be speaking about protecting our city on flooding in 14 the future. But I also want to take this opportunity 15 to invite all of us to also continue putting our ideas and initiatives on how we defeat the epidemic 16 17 of this crisis hit and run that save the lives of so 18 many beautiful individuals. So, as a child unfortunately was [INAUDIBLE 1:58]. 19 Thank you all for attending today's joint 20 21 Oversight Hearing of the Committee's on 2.2 Transportation and Resiliency and Waterfront and Environmental Protection and DOT's and MTA's 23 Resiliency Efforts and Preparations for Coastal 24 25 Storms.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 6 2 I want to first acknowledge the lives lost in the 3 aftermath of Hurricane Ida. This hearing is about 4 understanding what went wrong in making sure we do everything possible to prevent it from happening 5 again in the future. This strategy makes clear the 6 7 reality that climate change will not affect all of us equally. Of course, our responsibility is to protect 8 all New Yorkers of the five boroughs. But also, we 9 need to give special attention to us going on also 10 11 and the underserved community, where also we've been dealing with a lack of investment to protect them 12 13 from flooding. 14 Our planning for the future can only focus on

protecting areas like lower Manhattan from rising sea levels. And also, most of the big things of this storm were trapped in the basement level housing unit in Queens. Climate change only makes it more difficult, the problems that we already face. Like affordable housing and maintaining effective public transit.

As we move forward, we have to resist the flooding blamed for the response Hurricane Ida by talking about the unprecedent nature of this storm. Yes, it was an unprecedented nature storm but also,

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 2 we were not prepared as a city, neither from the MTA 3 perspective. 4 Severe weather events like this one and the other flooding events we have seen in the city this summer 5 are our new normal. In addition to improving the 6 7 ways that we communicate the dangers of impending 8 storms to the most vulnerable, we need to get to work 9 now on adopting our city for a rainier future. We have known for years about the threat our 10 11 communities face from flooding. We saw these dangers 12 first hand almost ten years ago during Super Storm 13 The storm this summer proves we don't have Sandy. time to wait on building a resilient city. That's 14 15 why it is disheartening to hear that almost a decade after Sandy, some of the resiliency project that 16 17 began as a result of that storm have still not been 18 completed. We know other cities, other nation that 19 we complete at level that they are able to finish

20 projects in a shorter period of time. But for 21 example, in my district, the Resiliency Improvement 22 Project at 207 Street Transit Yard in Manhattan are 23 still ongoing. And protections are the critical 24 Coney Island Yard are only 50 percent completed. 25 That would not happen in another city, another state

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 2 that we complete at a level, that we have followed the same level of procurement. This is unacceptable. 3 4 We need to get projects done in a shorter period of time. 5 Our city was clearly not prepared for the damage 6 7 caused by the heavy rain we experienced. Countless 8 videos emerge of the flooded homes and crumbling train station that gave way to the floor or rain 9 water. Being prepared for a future storm is simple, 10

not acceptable. We owe it to those who have suffered

everything we can to make sure this doesn't happen

as a result of this most recent tragedy to do

14 again. 15 In today's hearing, is our hope to gather as much 16 information as possible about the current resiliency 17 effort at both the city and the state level to 18 fortify and protect the transit system and improve 19 our city's infrastructure against severe weather 20 events.

21 Before I turn it over, before I turn it over to 22 Chairman Brannan for his opening statement. I would 23 like to acknowledge that the following Council 24 Members have joined us. Council Member Levine,

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COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 2 Miller, Gennaro, Brannan and Holden. Now, I turn it on to Chairman Brannan, Justin Brannan. 3 4 CHAIRPERSON BRANNAN: Thank you Chair. Good 5 morning, my name is Justin Brannan, I have the privilege of chairing the Committee on Resiliency and 6 7 Waterfronts and I join Chair Rodriguez and Chair Gennaro in welcoming you to today's joint hearing and 8 would also like to extend my thanks to my Co-Chairs 9 for holding this important hearing in a timely 10 11 manner. Climate week is next week and if the past few 12

13 months have taught us anything that the climate crisis is here sitting right next to us and we can't 14 15 hide from it because time is not on our side. 16 Flooding from rain storms is not a new phenomenon and 17 it effects more than just coastal areas as we saw. When Tropical Storm Elsa hit the city in July and 18 more than five inches of rain fell in just a few 19 hours, areas of upper Manhattan in the West Bronx 20 experienced significant flooding. But areas that 21 2.2 typically flood from coastal storm events like the 23 area around the Gowanus Canal or Hamilton Beach did not flood. 24

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A month later, Tropical Storm Henri brought heavy
rains and high winds. Over seven inches of rain fell
over two days and then just two weeks later, Tropical
Storm Ida flooded the city and killed 13 New Yorkers
including a two-year-old boy.

7 For the first time ever, a flashflood emergency was put in place for the five boroughs as the same 8 9 time. The subways were shutdown. Cars floated down The sewers overflowed. The sewer system, 10 roadways. 11 which was built 100-years-ago was not designed for 12 the once in a lifetime storms that we now get several 13 times a year. They were designed to handle no more 14 than 1.5 to 2 inches of rain per hour.

15 Two weeks ago, more than three inches of rain 16 fell in one hour. Almost two times the systems 17 designed capacity. For more than 70 percent of the 18 city is made up of hard surfaces like concrete and Services that prevent water from natural 19 asphalt. infiltration into the ground. The city was not built 20 21 to handle such intense rain and flooding events don't 2.2 just occur when a tropical storm hits the city. 23 About 60 percent of the city is served by combined sewer systems. This means that both waste water and 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 11 2 storm water are routed together to treatment plants to be processed. 3 4 When these lines are full, the combined waste water and storm water needs to go somewhere. 5 Just two weeks ago, that water turned streets into rivers 6 7 and devastated people's homes and businesses. Unless we ensure that plants, green spaces and pervious 8 services are just as prevalent as hardscaped 9 surfaces, the rain will continue to turn streets into 10 11 rivers and flood subways, homes and businesses. 12 The city released its storm water resiliency plan 13 and storm water flood maps back in May, just before the official June 1<sup>st</sup> start of the 2021 Atlantic 14 15 Hurricane season. The plan and the maps are a good 16 first step but some of the expected completion dates 17 are not for another two to three years. Emergency management draft messaging to warn basement apartment 18 dwellers about the potential dangers of extreme rain 19 events will not be completed until 2023. Eleven 20 people died in basement apartments two weeks ago. 21 2.2 Two years is too long to develop these notification 23 systems. As I said, the climate crisis is here. The time 24

25 for discussion is over and now, it's time to

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 12 2 prioritize and expedite shovels in the ground. We 3 weren't prepared for these storms, why? We know that 4 we are going to keep seeing intense storms more frequently. We must act and we must take a five 5 borough holistic approach. 6

7 I look forward today to thinking forward and 8 figuring out how we are going to make sure that we 9 learn from this storm. New York City has always 10 recovered in the face of any adversity but it's 11 important that we recover smart and that we build 12 back smarter and stronger and that we learn about the 13 new challenges that we're facing.

14 I look forward to hearing from the MTA and the 15 Administration during today's hearing. Quickly, 16 before we begin, I want to thank my Committee Staff, 17 Committee Counsel Jessica Steinberg Albin, Senior 18 Policy Analyst Patrick Mulvihill, Senior Finance 19 Analyst Jonathan Seltzer and my Chief of Staff Chris 20 McCreight, my Senior Advisor Jonathan Yedin, my 21 Legislative Director Michael Sheldon as well as the 2.2 staff of the Transportation Environmental Protection 23 Committee's for all their hard work in putting this important hearing together in a short amount of time. 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 13 2 I'll turn it back over now to Chair Rodriguez. 3 Thank you. 4 CHAIRPERSON RODRIGUEZ: Thank you. Thank you Chairman. Next, I will turn it over to Chairman 5 Gennaro for his opening statement. 6 7 CHAIRPERSON GENNARO: Thank you Mr. Chairman. I wish to thank you for your leadership and also 8 9 Chairman Brannan. It's a privilege to be able to Chair a hearing with you. 10 11 Good morning. My name is Jim Gennaro, Chair of the Committee on Environmental Protection and today, 12 13 we're holding an important hearing on the impacts of Storm Ida and the response of the storm and the 14 15 preparedness of the city and the MTA to respond to 16 future storm events.

17 As Chair of the Committee on Environmental 18 Protection, I will be focusing on DEP and the 19 capacity of the city's water infrastructure as the 20 city's sewer infrastructure rather to manage storm. In 2008, I authored Local Law 5, which mandated that 21 DEP and the Mayor's Office of Long Term Planning and 2.2 23 Sustainability create a comprehensive Storm Water Management Plan. That was the first law of its kind 24 25 in the country at the time and it was a pretty big

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 14 2 deal. The development of the Storm Water plan because central to Plan NYC, the city's plan as it 3 4 was known at the time and the development and implementation of that plan not withstanding and as 5 Justin said, it is still being implemented. It seems 6 7 that whatever cutting edge plans the city has made and actions the city has taken to manage storm water, 8 9 Ida certainly showed me that whatever additional ability the city has to manage storm water, we need 10 11 to do that and then some.

Recent tropical storms in the city show that more 12 13 storm water management strategies will be necessary to grapple with the very severe weather and reduce 14 15 the risks of flooding. As we know, Ida cost 13 New Yorkers their lives in storm water. I believe we 16 17 need to build on the good work of the City's Storm 18 Water Management Plan and take it to the next level. To keep up with ever more intense weather events 19 20 brought on by climate change, the city needs to do 21 better period. This hearing begins that process. I thank the administration for its presence here 2.2 23 today and all that DEP has done to manage storm water. Without the storm water management, uh, uh, 24 uh, storm water management infrastructure that has 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 15 2 been deployed and the storm water management 3 strategies that have been adopted, the effects of Ida would have been far worse. 4 I also thank the Committee staff who have done 5 such great work over the years. EP Committee Counsel 6 7 Samara Swanson, Policy Analyst Nadia Johnson, Ricky Chawla, Financial Analyst Jonathan Seltzer and 8 9 finally, my Legislative Director Navi Kara(SP?) for all of their hard work. And with that, I'll turn it; 10 11 I'll turn things back to Chair Rodriguez, Mr. Chairman. 12 13 CHAIRPERSON RODRIGUEZ: Thank you Chairman. Ι 14 will give the opportunity to the Chairman of the 15 Committee of Sanitation, right? Antonio Reynoso to 16 also say a few words. 17 COUNCIL MEMBER REYNOSO: Thank you Chair. I just 18 wanted to thank Commissioner Grayson in the 19 Department of Sanitation for being here. It seems 20 like no matter what mess is put in front of us 21 related to infrastructure and other agency issues, 2.2 Sanitation is always there to clean up the mess. So, 23 I just wanted to thank you for being here and thank you Chair for indulging me with some time. 24

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CHAIRPERSON RODRIGUEZ: Thank you. Thank you
Chair Reynoso. I will now have our Committee Counsel
call on the Administration to testify and to
administer the oath.

COMMITTEE COUNSEL: Thank you Chair. I will now 6 7 call on the following members of the administration 8 to testify. From New York City Emergency Management 9 Commissioner John Scrivani. From the Mayor's Office of Climate and Resiliency Director Jainey Bavishi. 10 11 From the Department of Environmental Protection 12 Commissioner Vincent Sapienza, and Deputy 13 Commissioners Angela Licata and Tasos Georgelis. 14 From the Department of Sanitation Commissioner 15 Edward Grayson and Deputy Commissioner Gregory Anderson. From the Department of Buildings 16 17 Commissioner Melanie LaRocca and from the Department 18 of Housing Preservation and Development Deputy 19 Commissioner of Enforcement and Neighborhood Services 20 Ann Marie Santiago and Associated Commissioner of 21 Preservation Kim Darga.

From the Department of Transportation Deputy
Commissioner for Sidewalks and Inspection Management
Leon Hayward. Assistant Commissioner for
Intergovernmental and Community Affairs Rebecca Zack,

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 17 2 and Executive Director of Capital Program Planning 3 Leslie Wolf. From FDNY Deputy Assistant Chief Kevin 4 Woods and from NYPD Chief of Operations Raymond 5 Spinella and Director Michael Clarke. Please raise your right hand. Do you affirm to 6 7 tell the truth, the whole truth and nothing but the 8 truth in your testimony before this Committee and to 9 respond honestly to Council Member questions? MEMBERS OF THE ADMINISTRATION: 10 Yes. 11 COMMITTEE COUNSEL: Thank you. You may begin 12 your testimony when ready. 13 JOHN SCRIVANI: Good morning Chairs Rodriguez, Brannan and Gennaro and the members of the City 14 Council. I am John Scrivani Commissioner of 15 Emergency Management. I am pleased to be here today 16 17 at my first Council hearing since becoming Emergency 18 Management Commissioner in late April. I am joined by my colleagues from DEP, DSNY, DOB, HPD, FDNY, 19 20 NYPD, DOT, and the Mayor's Office of Climate 21 Resiliency to outline the preparedness actions New 2.2 York City took in the lead up to Hurricane Ida, the 23 response during and after the storm and the current services being provided as part of our ongoing 24 25 recovery process.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 18 2 First, I want to acknowledge and give my 3 condolences to those who lost loved ones as a result 4 of this storm. This unprecedented storm has likely 5 impacted people who we all know personally and maybe even your own homes. Allow me please to acknowledge 6 7 the pain of individuals that have lost their homes, irreplaceable items and a sense of normalcy and 8 9 security in what is already an extremely trying time due to the COVID-19 pandemic. 10

11 New York City Emergency Management began tracking Hurricane Ida on August 26<sup>th</sup>, when it was then known 12 13 as Tropical Depression Nine. Based off multiple consultations with the National Weather Service, we 14 15 activated the city's Flash Flood Emergency Plan on 16 August 30<sup>th</sup>. The Flash Flood Plan is the most 17 frequently activated plan. So far this year, it has 18 been activated 13 times and in 2020, it was activated nine times. What does activating this plan mean? 19 Ιt sets off a cascading - it sets off cascading 20 21 instructions for various agencies and partners as 2.2 they implement their portion of the plan to deal with 23 the potential for excessive and rapid flooding. These components include all the agencies here 24 with us today, as well as other partners such as the 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 19 2 National Weather Service, the MTA and a utility 3 company such as Con Edison and National Grid. For this storm, NYSEM's actions included issuing a travel 4 advisory on August 31<sup>st</sup> which included preparedness 5 measures and warnings, hosting daily interagency 6 7 conference calls with municipal and state agencies, utility partners and public/private partners. 8 9 Placing the Down Tree Taskforce on alert, amplifying information to elected officials and community 10 11 partners, issuing an advanced warning system message to disability service providers and ultimately 12 putting a travel ban in place. 13 14 During the course of the event, NYCEM issued 30 15 Notify NYC messages, informing people about service 16 disruptions and aspects of the storm as it was 17 happening. And the national weather service issued 18 Wireless Emergency Alerts or WEA's that were sent to 19 all mobile phones in New York City. Our field 20 responders were deployed in each borough, so that they can assess dangerous conditions guickly. 21 In addition to flooding conditions, they 2.2 23 responded to eight other multiagency incidents including power outages at healthcare facilities, a 24 retaining wall collapse and fires. NYPD officers 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 20 assisted New Yorkers in high challenging situations. They conducted 166 total rescues of which 69 were water rescues and they also rescued more than 800 passengers from MTA trains.

The NYPD worked with private tow companies to 6 7 move more than 1,000 vehicles and went door to door 8 in highly impacted neighborhoods. Members of the 9 FDNY conducted hundreds of rescues and saved more than 500 New Yorkers trapped on flooded road ways and 10 11 in submerged cars, subway stations and buildings. In a number of these rescues, FDNY members used their 12 13 extensive training to navigate deep waters and collapsed buildings. Their knowledge and experience 14 15 of water rescue allowed them to remove individuals 16 from dangerous situations and bring them to safety. 17 It was in general an extremely rainy August. Between August  $19^{th}$  and September  $1^{st}$ , we saw over 16 18 19 inches of rain. However, this particular storm was unprecedented and a record we are sorry to see 20 21 broken. Locally, we saw a maximum storm total of up to ten inches of rain. At LaGuardia Airport, it was 2.2 23 the most recorded rain ever. In Central Park, it was the fifth highest on record. For emergency managers 24 and for the city as a whole, we immediately pivoted 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 21 2 our posture to consequence management. NYCEM 3 coordinated the opening of service centers, one in 4 each borough, staffed by city agencies, nonprivate partners, the state and FEMA as a venue for effected 5 residents to receive a wide range of resources and 6 7 information including but not limited to, shelter needs, social service benefits available to them from 8 all levels of government, food distribution, damage 9 assessment guidance, dewatering information, 10 11 distribution of red cross supplies, assistance to homes and businesses with various services including 12 13 cleaning and debris removal and more. 14 These service centers will remain open for as 15 long as they are needed and have already seen over 16 2,200 households. For those who cannot come in or 17 prefer a virtual option, all services are also 18 available by calling 311 or going through the website 19 www.nyc.gov/ida, which has already seen more than 20 60,000 visits to date. We want to thank the City Council and other elected officials who have been 21 instrumental in assisting us through this process, by 2.2 23 providing information, connecting constituents and assisting us with ensuring that the service centers 24 locations are in known and comfortable locations. 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 22 2 Multiple agency efforts related to recovery were 3 also swiftly underway. The Department of Buildings responded to incidents, complaints and referrals from 4 agencies regarding storm damage. DOB is not issuing 5 violations to property owners impacted by storm 6 7 damage and all DOB fees related to construction work 8 associated with storm damage are waived, including 9 permit fees. The Public Engagement unit organized door to door 10 11 knocking to ensure information in multiple languages was received directly by those affected and NYCEM and 12 New York City Service activated volunteer 13 coordination taskforce. In addition to staffing the 14 15 surface centers, the Department of Housing 16 Preservation Development has been on the ground 17 working to connect displaced residents with the 18 American Red Cross for emergency hotel service and 19 its inspectors have been responding to storm related 311 complaints as well as assisting DOB with 20 21 buildings inspections and assessments. 2.2 The FDNY assisted with dewatering operations and

23 clearing down trees. My colleagues at DEP and DSNY 24 will testify after me in greater detail of their 25 roles and responsibilities in operations. The

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 23 2 Administrations role does not end when the response 3 if over and recovery is underway. NYCEM will conduct an after action assessment both internally and with 4 5 our agency partners to best assess what we can do better in the future. Constant improvement is part 6 7 of our core mission to best serve New Yorkers during, before - before during and after emergencies. 8 9 We do and will continue to ensure that climate change and its consequences are incorporated into all 10 11 of our plans and actions. Hurricane season is not 12 over and the potential for severe rain and flooding 13 is a rear round concern. We encourage all individuals and families to make an emergency plan 14 15 that works for you. Have a go bag filled with items that you may need in an emergency. Identify an 16 17 emergency contact both within and outside of the city 18 and please, sign up for Notify NYC. The city's free emergency communications program that provides alerts 19 in multiple languages by visiting our website, 20 21 calling 311 or about downloading our app in multiple 2.2 languages by visiting our website - I said that 23 already, my apologies. I now turn to my colleagues for their testimony 24

25 and after, this panel is available to take your

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 24 2 questions. Thank you very much for your time and 3 attention. I now turn it over to the Department of 4 Environmental Protection Commissioner Sapienza. 5 VINCENT SAPIENZA: Thank you. Thank you Commissioner Scrivani. Good morning Chairs and 6 7 Council Members. I am Vincent Sapienza, the 8 Commissioner of the New York City Department of 9 Environmental Protection. On behalf of the agency, I want to express our condolences to the family and 10 11 friends of people who lost their lives during the 12 storm. For those who experienced damages and losses 13 to their homes and businesses, we know that recovery is not easy and we at DEP commit our continuing 14 15 support.

16 DEP is responsible for the city's drinking water 17 supply and for the waste water collection and 18 treatment systems, which include 7,500 miles of sewer pipes that convey sanitary, sewage and storm water. 19 20 Much of that infrastructure was designed and constructed decades ago for what is clearly a 21 2.2 different climate reality. During the past several 23 years, significant capital improvements have been made using a variety of tools, which I'll speak about 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 25 2 shortly, but obviously far greater investments are 3 required. 4 I want to point out that the total amount of rainfall during a storm uhm, is not what presents the 5 challenge but rather rainfall rates or intensity. 6 7 Occasionally during intense summer storms in New York City, rainfall rates can exceed the capacity of local 8 sewers resulting in water accumulating on streets and 9 highways. This periodically triggers the National 10 Weather Service to issue flashflood watches and 11 12 warnings. The city has a longstanding flashflood 13 emergency plan that is routinely activated when storms with such intensity or forecast. Given the 14 15 forecast that we had for Ida, city agencies jointly 16 activated the plans protocols on August 30<sup>th</sup>. 17 The record smashing 3.15 inches of rain that fell

18 within an hour just after sunset was not forecast. 19 The deluge far exceeded the capacity of the city's 20 sewer system causing significant quantities of water 21 to quickly accumulate on the ground. But water does 22 not accumulate uniformly, rather it runs downhill 23 rapidly to the lowest geographic point. Major 24 flooding began to occur in those low laying areas.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 26 2 At around 9:30 p.m. the National Weather Service 3 issued the first ever flashflood emergency for New 4 York City. By that time, city agencies were already 5 responding to life threatening flooding. Community driveways, which are below grade alleys behind 6 7 residential streets that provide access to basement level garages were significantly flooded. Many of 8 9 these garages have over the years been converted into living spaces. 10

11 While these community driveways are private 12 property, the city is committing to finding drainage 13 solutions to prevent future threats to public safety. I wanted to spell the notion that clogged catch 14 15 basins were responsible for the flooding. DEP 16 programmatically inspects and cleans 148,000 catch 17 basins to ensure that local streets and highways are 18 drained. We also work in partnership with DSNY and DOT to support removal of litter, which is the 19 primary cause of clogged catch basins. Again, the 20 21 flooding from Ida was a sewer system capacity issue, not a catch basin issue. 2.2

As extreme weather events become more frequent due to climate change, we need to continue making improvements to the city's drainage infrastructure.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 27 2 DEP's four year capital plan includes \$2.3 billion 3 within 278 projects to improve drainage. One major 4 effort is the Southeast Queens program where Mayor de Blasio committed \$2 billion to build storm sewers. 5 High level storm sewers are another tool that will be 6 7 leveraged. Unlike traditional deep sewers that are very costly to upgrade, supplementary non-network 8 high level storms can in some neighborhoods be at 9 just below the street surface to convey storm water 10 11 directly to a nearby waterway.

In partnership with the Mayor's office and other city agencies, DEP performed a cloud burst planning study in 2017 that identified primary sites for a cloud burst design strategies which integrates stormwater retention and to open spaces and streetscapes informed by Copenhagen's internationally recognized approach.

We have two cloud burst projects in Queens that are in the design phase. One at NYCHA at the South Jamaica houses and the other in the public right away in Saint Albans. We've received funding from FEMA for a feasibility study for a project in East Harlem and we are exploring ways to expand this important program across the city.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 28 2 Keeping stormwater out of the sewer system is a 3 major objective for our drainage program. And so, 4 New York City has implemented the most aggressive green infrastructure program in the country. Over 5 the past several years, we built more than 11,000 6 7 curbside rain gardens and infiltration basins and implemented many best management practices for green 8 9 infrastructure.

We also partner with NYCHA, the Department of 10 11 Education and Parks and Recreation and other agencies 12 to retrofit paved areas with green infrastructure. We have built more than 70 blue belts across Staten 13 14 Island and have begun to expand the program into 15 Queens and the Bronx. In total, there are more than 16 14,000 acres of blue belts in the city. We've also 17 partnered with DOT on a pilot program to install 18 porous pavement along the curb lines of city streets. 19 In addition to our capital projects, we are 20 developing unified storm order rule which will 21 streamline existing stormwater management for new and 2.2 redeveloped properties that connect to the city's sewer system. The unified rule will result in new 23 developments managing more stormwater on their sites. 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 29 2 I want to thank the new leadership at the MTA for 3 recently partnering with us on storm preparation and 4 I look forward to working jointly to implement additional protective measures. Obviously none of 5 these upgrades are cheap. Improvements to drainage 6 7 are currently funded through water bills that New York City residents pay. Keeping water rates 8 9 affordable while funding major capital work can't happen without a significant infusion of federal 10 11 funding. 12 Finally, I want to acknowledge the work of DEP 13 staff during the storm, both before, during and after. They've continued to work diligently and 14 15 we've been aiding communities that have been affected 16 by the flooding. Including offering free pumping 17 services to anyone that needs it. With that, I'd 18 like to hand it off to my colleague Commissioner Ed 19 Grayson at Department of Sanitation. 20 CHAIRPERSON RODRIGUEZ: Thank you. 21 EDWARD GRAYSON: Thank you. Good morning Chair Brannan, Chair Gennaro, Chair Rodriguez and the 2.2 23 members of the City Council Committee's on Resiliency and Waterfronts, Transportation and Environmental 24 25 Protection. I am Edward Grayson, Commissioner of the

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 30 2 New York City's Department of Sanitation. We thank 3 you for the opportunity to testify on the departments 4 preparation for and response to the devastating flooding caused by the remnants of Hurricane Ida. 5 First, I want to recognize the tremendous and 6 7 devastating impact of this storm on so many New Yorkers. Their homes and their most treasured 8 9 possessions, their livelihoods are gone. And in some cases, very sadly, our fellow New Yorkers have lost 10 their lives. 11 In advance of extreme rainfall and other tropical 12 13 weather events, the Department of Sanitation works closely with our fellow agencies to implement 14 15 planning and preparedness activities. As Commissioner Scrivani described, DSNY plays an 16 17 important role in the city's flashflood emergency 18 plan. 19 On Tuesday, August 31<sup>st</sup>, DSNY, DEP and DOT 20 inspected and cleaned 1,000 catch basins in major 21 flooding hot spots as well as all catch basins on 2.2 major highways. DSNY also regularly conducts tests and preparedness at our facilities, ensuring that we 23 have continuity of operations to help the city 24 recovery after major weather events. 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 31 2 As soon as the rain began to slow overnight on 3 September 1<sup>st</sup>, the Department pivoted into an emergency response posture. By Thursday morning, 4 department supervisors were out in the field 5 surveying effected neighborhoods and developing 6 7 deployment strategies for emergency response operations. That day we deployed the first crews to 8 9 begin cleaning up debris and we have not stopped since. 10

We've worked with local community leaders to 11 bring dumpsters to the hardest hit communities and we 12 immediately informed both residents employees to 13 expect the department to work throughout the Labor 14 15 Day holiday. And while many employees themselves 16 were affected by flooding at home, the department 17 continues to provide regular refuse in recycling 18 collection, more than 12,000 tons per day with only 19 minor delays.

Early in the morning on September 2<sup>nd</sup>, we worked with Department of Transportation to suspend alternate site parking regulations. And that suspension was later extended through the Rosh Hashanah holiday on September 8<sup>th</sup>. The department also suspended all enforcement activities for dirty COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 32 sidewalks, trash setouts and other sanitation violations and that enforcement suspension continues in the affected areas.

5 Since that Thursday, DSNY has provided around the clock debris removal operations in neighborhoods 6 7 affected by the storm. To date, sanitation workers have worked more than 60,000 hours on debris removal 8 9 and storm cleanup activities. Removing more than 15,000 tons of debris, including more than 7,500 tons 10 11 in the borough of Queens. Our crews have repeatedly 12 visited every effected block coming back day after 13 day as residents continue the slow, painful and tearful work of removing debris, possessions, 14 15 furniture and treasured keepsakes from their homes.

16 In addition to our work, the City Cleanup Corp 17 also contributed to the recovery work. Immediately 18 following the storm, thousands of Corp members were out clearing accumulated litter and storm debris 19 across the city. Since last week, 140 Corp members 20 21 have helped seniors and other New Yorkers in need to remove storm debris, furniture and appliances from 2.2 23 their homes. To date, Corp members have loaded an estimated 48,600 bags of litter and debris citywide. 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 33 2 I've spent the last two weeks in neighborhoods across the city. Speaking to residents, supervising 3 4 operations and working on the ground with many of my fellow commissioners who join me at this hearing 5 6 today. 7 We know the work is not yet done. Many homeowners and residents continue to sift through the 8 9 damaged belongings and pull sheetrock off the walls. I want them to know that we are there for them. 10 We 11 will keep coming until all the work is done. I want 12 to thank all the sanitation workers, uniformed 13 officers and support staff for their dedicated commitment over these last two weeks. As well as all 14 15 other city workers who have been involved. 16 They have proven yet again that they are heroes, truly essential workers that will move literal 17 18 mountains to help their fellow New Yorkers. Thank you for the opportunity to testify today. 19 JAINEY BAVISHI: Good morning. I am Jainey 20 21 Bavishi, Director of the Mayor's Office of Climate 2.2 Resiliency. I would like to thank Chairs Brannan,

23 Gennaro and Rodriguez for the opportunity to testify

25 colleagues from New York City Emergency Management,

today. I would also like to acknowledge my

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 34 2 the Departments of Environmental Protection and 3 Sanitation, as well as the Departments of Housing, 4 Preservation and Development Buildings and Transportation, NYPD and FDNY this morning who will 5 join me in responding to your questions. 6 7 I'd also like to express my condolences to those 8 who lost loved ones during the storm. As you know, 9 the Mayor's Office of Climate Resiliency is responsible for ensuring that New York City is 10 11 prepared to withstand and emerge stronger from the 12 impacts of climate change. Our role is to lead the 13 strategic direction and planning to prepare for 14 extreme events and chronic impacts and coordinate 15 with agencies to implement this work. Within our \$20 billion resiliency portfolio, the 16 17 city is preparing to adapt to a variety of climate 18 hazards. We call this a multi-hazard approach since 19 it addresses all the climate threats that impact our 20 city including a significant focus on managing extreme rainfall and storm water. 21 2.2 This work has been in progress for more than a 23 decade and includes hundreds of completed projects as well as important policy changes such as reforms to 24

25 | building and zoning codes. While we are urgently

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 35 2 working to address multiple risks including coastal 3 storm surge, extreme heat waves and chronic title 4 flooding. My testimony today will focus on how we are protecting New Yorkers from intense rainfalls 5 from storms like Hurricane Henri and Ida. Our 6 7 climate adaptation strategy also takes a multilayered 8 approach. This means that we are focused on 9 establishing multiple lines of defense at different scales across the city to respond to the multiple 10 11 hazards.

12 As we have seen most recently with Hurricane Ida 13 and recent historic storms, all these lines of defense, such as green infrastructure, expanded 14 15 sewers, grid resiliency, emergency communication and 16 flood insurance are critical components of our 17 system. And our work to develop and strengthen our 18 infrastructure in response to these climate hazards 19 must move forward with urgency funding and 20 partnership within all levels of government. We are 21 optimistic for example that the American jobs plan will provide the city funding to tackle these large 2.2 23 infrastructure projects. Congress is considering both a bipartisan infrastructure bill and budget 24 reconciliation bill. The city has worked to ensure 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 36 that green infrastructure, climate investments and strong investments in housing are included in these packages.

Congress is currently drafting the budget 5 reconciliation bill and we expect more action and 6 7 hopefully final passage in the next few weeks. 8 Concurrently, following the storm, the city worked 9 with the federal delegation to identify federal disaster funding programs to assist with recovery. 10 11 The House Delegation sent a letter to the Chair of 12 the Appropriations Committee asking for a 13 supplemental disaster funding package. One that 14 includes transit dollars, CDBGDR and funding for 15 homeowner retrofits among others.

16 President Biden also requested disaster spending 17 to help meet the needs of communities effected by 18 Ida. We also need to work with the state to short subway infrastructure. As we all witness, the MTA 19 cannot handle these types of events and need to 20 address their critical infrastructure. The need to 21 address their critical infrastructure is paramount. 2.2 23 It's why the Mayor has called for speeding up full implementation of congestion pricing, which will 24 inject billions of dollars into the system. 25
COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 37 2 The city has taken extensive steps to address the 3 risks caused by extreme rainfall. The Department of 4 Environmental Protection is the lead agency for this 5 work. Specifically, they are responsible for maintaining and expanding the sewer and water capture 6 7 system. Each year, the Department invests hundreds of millions of dollars to upgrade the entire city's 8 drainage system, which serves both inland and coastal 9 10 areas.

11 They are also investing heavily in nature-based solutions. For example, over the last two plus 12 13 decades, the DEP constructed more than 70 blue belts across Staten Island. New York City also has the 14 15 most aggressive green infrastructure program in the 16 country. Additionally, in the past several years, 17 the department has built more than 11,000 curbside 18 rain gardens, infiltration basins and implemented best practices in green infrastructure as 19 20 Commissioner Sapienza mentioned. Innovative 21 stormwater capture projects using what we refer to as 2.2 cloud burst design, specially designed to address 23 heavy downpours are also ongoing at NYCHA housing developments and being designed for street medians. 24 These cloud burst stormwater management strategies 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 38 2 are a mix of grey and green infrastructure designed for a large volume events to absorb water where 3 4 possible and store excess water safely until the 5 event passes. These projects can also provide amenities and increase open space. We look forward 6 7 to working with DEP to expand cloud burst design beyond the pilot areas. 8

9 Areas that face unique risks are getting special investments. For example, we know that many areas in 10 11 Southeast Queens are particularly vulnerable to rainfall but face flooding. To address this 12 vulnerability, DEP along with DOT and DDC are 13 currently engaged in a massive \$1.9 billion buildout 14 15 of the sewer system there to alleviate flooding and 16 improve the quality of life for residents and 17 businesses.

This work and future investments will be 18 19 strengthened and guided by our stormwater resiliency 20 plan, which was required by Council legislation and 21 released earlier this year. The storm water plan 2.2 outlines exactly where the city expects to see future 23 stormwater flooding and lays out key actions that the city is taking now and in the future to strengthen 24 our resiliency. Hurricane Ida made it clear that we 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 39 2 must speed up and augment these efforts and Mayor de Blasio has created an extreme weather taskforce to do 3 exactly that. The city is also leading the way with 4 5 best practices and stormwater management under the climate resiliency design guidelines. We're grateful 6 for Council's partnership and incorporating these 7 guidelines into Local Law 41 of 2021, which will 8 ensure that new public facilities and infrastructure 9 projects are designed to withstand the more severe 10 11 flooding we expect in the future.

12 DEP will also evaluate their long term drainage 13 planning with future conditions in mind. However, even with these significant investments and policy 14 15 changes, we must recognize that we can never fully 16 eliminate risk. Encouraging New Yorkers to protect 17 their financial health with flood insurance is 18 another important component of our strategy. We are continuing to advocate in Washington for reforms to 19 the National Flood Insurance program that would 20 increase affordability for low-income households. 21 2.2 This program will come up for reauthorization at the 23 end of this month. So, there is a critical window for action. 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 40 2 Additionally, earlier this summer, we launched a 3 One million dollar advertising campaign in 4 partnership with FEMA to explain the importance of flood insurance and promote risk awareness. 5 We're also exploring opportunities to retrofit New York 6 7 City's existing buildings. Our office was recently awarded FEMA funding to conduct a study of where and 8 9 when backwater values work best in the city. Our goal is to understand how this tool can benefit New 10 11 Yorkers in how to develop a sustainable program that will reduce flooding in homes and businesses. 12 While the city is of course limited in our 13 ability to fund a large scale retrofit program, we 14

15 are always exploring ways to partner with different 16 levels of government to strengthen our existing building stock. We look forward to working with 17 18 Council as the study progresses. There is no doubt 19 that much more work remains to be done to adapt New York City to a hotter and wetter future. Even with 20 21 more funding, reforms and partnership implementing 2.2 new and complex solutions won't be easy and will 23 require incredible thoughtfulness and participation of many communities and stakeholders over the coming 24 25 years and decades.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 41 2 We also recognize the need for comprehensive 3 solutions that account for the city's multiple and often simultaneous hazards. Despite the significant 4 scope of the work ahead, I remain optimistic about 5 our ability to meet these challenges rapidly and 6 7 equitably for all New Yorkers. In conclusion, I would like to thank the 8 9 Committee on Resiliency and Waterfronts, the Committee on Environmental Protection and the 10 11 Committee on Transportation for allowing me to testify here today. I look forward to answering your 12 13 questions about the strategic planning in response to 14 the threat space by climate change. 15 CHAIRPERSON RODRIGUEZ: Thank you. I would like 16 to let the public know that the NYPD are also here and that they will be ready even though they are not 17 18 preparing, presenting testimony but they are ready to 19 answer questions on how from the NYPD perspective, 20 they also respond during these storms. 21 So, they are here present ready to answer 2.2 questions. Second, I would like to let everyone know 23 that after we finish with the panels from the administration at 12, we will have the MTA as a 24 second part of responding questions related to the 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 42 2 public transit system. So, as we will ask any 3 question, we will be aware that any question related 4 to the MTA will be asked in the second panel. 5 But before we get into questions I would like to ask everyone to please stand up for a moment of 6 7 silence in the name of those people that we lost as a result of this storm. [SILENCE 45:12-45:34]. 8 9 There's no doubt that you know we are the best city in the whole nation and the whole world and we 10 11 have to be thankful to the men and women that you 12 guys in and the rest of your team, that are the one 13 that had to be accountable for planning an executed plan. Our role from this side to oversight, but you 14 15 are the ones that have to be working 24/7 to be sure 16 that you identify the best leaders in each agency, 17 ready to respond in any type of disaster. 18 And I can say that we as a Council appreciate in 19 the whole city. I know that you did the best you 20 could. So, any question that we would ask about how, 21 what did we learn? What went wrong? How can we be 2.2 better prepared? Is not disqualifying the great job 23 that you as the leaders and others in each agencies here and the rest they had done during this past 24 storm and in any disaster that New York City has been 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 43 dealing with. And we know that the city, we all have to plan to be better, to be stronger and that's what we expect to come out from this hearing.

5 I feel that I have a few questions. I know that 6 my colleagues also have questions. So, I don't 7 pretend to cover every single area but at least a few 8 of those questions than my colleagues will continue 9 asking questions.

My own experience is that we have all 10 11 infrastructure. This is something that I know that all of us bring. There is a lot of things that we 12 13 have on the ground, [INAUDIBLE 47:23] engineering agency, we find that at the time we are doing certain 14 15 projects. And I feel that that all infrastructure 16 that we have play a role when it comes to the 17 accumulation of waters that we get in our street. 18 And I can give you let's say a local sample. In my 19 own district, Riverside Drive and Seaman Avenue, is 20 one of those intersections that I can tell you things 21 in 2019. I have been bringing that intersection to the previous administration and the current 2.2 23 administration. Twelve years highlighting that that particular area is the area that if you get even less 24 than one inch of water, all those businesses will be 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 44 2 dealing with the flooding because the water is coming 3 from the Fort Isham Park and all these leaves that go down there are accumulating. By the same thing that 4 5 you will find out at Nagle Avenue and Dyckman because in that side, in the east part of the Northern 6 7 Manhattan, then we have Highbridge Park. And all the water come down from the bridge from the Highbridge 8 Park and now to raining and water is accumulating. 9 Twelve years highlighting to all the administration 10 11 that something must be done. Agencies that don't connect. Agency, what I get, we will look at it but 12 there is no action. And I feel that that wouldn't 13 14 happen if that would be close to Central Park. 15 That would not happen if it was close to Central Park West, 5<sup>th</sup> Avenue and these are the same 16 17 experiences that we will hear through borough after 18 borough when it comes to challenges that we have of 19 the need to invest in millions of dollars in capital to deal with those local situations. 20 21 So, you know, I am not going to be asking a 2.2 question because what can you tell me? That you will 23 look at your team but I can tell you from Mayor Bloomberg to Mayor de Blasio, it's not lack of being 24 noticed, it's that those areas have not been a 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 45 2 priority. And, and, and I feel again that we have 3 that responsibility to deal with certain area. Take Dyckman public housing. It's one of those areas that 4 when you look Sandy, they got water into those 5 buildings. Talk about Academy Street 10<sup>th</sup> Avenue, 6 7 that has not been in included in any investment. It suffered during this storm but that's a potential 8 9 area to come.

And we know, again, we all know still we rookie in government but it is already 12 years. We also know that we have limited resources but sometimes we also have to deal with it further when it comes to invest in making the decision to invest in upgraded infrastructure. Underserved, poor neighborhoods have been left out.

17 That's in general what I wanted to bring. But I, 18 now looking at what happened, especially in those 19 cases of people that many of them, they die in their 20 basement. I have a question. The first question is, 21 at what time, does the city have a system to 2.2 communicate with the homeowners and if that's the 23 case, at what time did the homeowners receive a notice that their basement could be at risk as a 24 result of the flooding? 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 46 2 JOHN SCRIVANI: Alright, thank you sir. Ι 3 appreciate your question and first, I'd like to just 4 thank you for your opening comments about our teams. 5 As you mention, these folks are really working hard. They are not going home and I think your words really 6 7 resonate with them and we really appreciate you making those as opening comments. So, thank you for 8 9 that. CHAIRPERSON RODRIGUEZ: [INAUDIBLE 52:07-52:14]. 10 11 JOHN SCRIVANI: So, thank you very much. 12 Alright, so, to address your specific question. 13 Multiple warnings were going out regarding the storm, pre-storm and during the storm, both from New York 14 15 City and the National Weather Service as you probably 16 had received on your phone. 17 Your specific question about did we uhm, direct 18 people to evacuate their basements? That is not in 19 the current messaging and that's what the Mayor has 20 addressed in the Extreme Weather Taskforce where we 21 are going to be doing that and we will be releasing 2.2 that information next week. We have develop 23 messaging to give people guidance on when we believe that the weather will change rapidly and we may see a 24 situation. We have been asked by the Mayor to make 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 47 2 sure we are leaning forward and looking at worst case scenario, not just the forecast that's been provided 3 to us. So, we will be leaning forward. I can give 4 you and the Council an outline of all the messages 5 that had gone out that pre-storm and during the 6 storm, uhm, it's a quite extensive list. You know we 7 had sent out probably almost 30 messages pre and 8 during the storm. But to your specific question of 9 did we put out one that says specifically evacuate 10 11 your basement? No, we did not. 12 CHAIRPERSON RODRIGUEZ: Okay, so hopefully you 13 know, the taskforce and you guys work on it but you know it is unfortunate that we didn't have the system 14 15 in place but it's also the area to move forward. Where was the city - in which area do you feel 16 17 that the city could be better prepared to deal with 18 this flooding? JOHN SCRIVANI: So, I think you just addressed 19 that. We uhm, we need to add a couple of new tools 20 21 to the toolbox. One of them is being more aggressive 2.2 on our messaging and not just taking the forecast 23 that we receive at face value. And really trying to look at them as what is the possible worst case 24

scenario, so that we can get messages out quickly.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 48 2 So, from the messaging perspective, we have a 3 comprehensive plan. The Mayor will be releasing that 4 in the coming weeks. We're ready to launch that. 5 So, from the emergency management side, there's the messaging. Obviously, we need your partnership. 6 We 7 need to make sure people are prepared to move if something does happen. 8 9 As Jainey mentioned, we have multiple hazards

that come out of this simultaneously. We're dealing with a pandemic. We're dealing with uh, climate chance and extreme weather and we really need the Council and all the other elected official's help to partner with us to make sure that we get that preparedness message out as I mentioned in my testimony.

17 Uhm, prepared people fair better when we have 18 emergencies. They get the information quicker 19 because they know what to look for. So, preparedness 20 is key, messaging is key and you know to speak to 21 broader you know preparedness on what we can possible 22 do in infrastructure, I'll ask Commissioner Sapienza 23 to address that.

VINCENT SAPIENZA: Thank you Commissioner. I
want to you know, Chair Rodriguez, just respond to

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 49 2 your question about old infrastructure and agreed. A 3 lot of our sewer infrastructure is old but that doesn't mean that it doesn't function as it was 4 originally build to do. Which it does, it was just 5 designed and built for a different time, a different 6 7 reality both climate and city. 8 And so, we know that it needs to be improved. As 9 I mentioned in my testimony, we spend about \$500 million a year in upgrading our drainage 10 11 infrastructure in the city. Uhm, in Southeast 12 Queens, a long underserved community. The Mayor has 13 committed \$2 billion. Much of which has already been 14 spent over the last five years to provide a modern 15 drainage system there. So, those things are underway but uhm, you know, 16 17 we, we, if we want to meet the challenges of climate 18 change, obviously a lot more has to be spent. 19 CHAIRPERSON RODRIGUEZ: Okay. 20 JAINEY BAVISHI: And I might chime in here as 21 well. Uhm, you know I think uhm, Commissioner 2.2 Sapienza also mentioned this in his testimony as did 23 I, that sewer infrastructure, even if we work to modernize it to incorporate climate change 24 projections is only going to be part of the solution. 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 50 2 We can only build so big; they are going to have their limitations. And so, we need to continue to 3 4 pair those investments with investments in more 5 innovative stormwater practices like green infrastructure which DEP has already been leading on 6 7 and we also need to continue to expand our Cloud Burst Management Program. 8 As both Commissioner Sapienza and I mentioned in 9 our testimonies, uhm, you know we have been piloting 10 11 those Cloud Burst Management Projects on a project level basis. We have been learning from Copenhagen 12 13 which is really the city that's leading on this kind of management practices. We've learned from 14 15 Copenhagen that cloud burst projects decrease volume 16 of water entering the sewer system by 30 percent 17 which is really an incredible number. So, we have an 18 opportunity to expand those kinds of practices and basically it's taking open spaces, green spaces and 19 streetscapes and turning them into stormwater 20 21 retention areas. They would, during blue skies, 2.2 remain you know the open spaces, green spaces and 23 streets and provide recreational amenities and other benefits to the community. 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 51 2 I also want to mention Chair since you brought up 3 the point about equity that this is incredibly 4 important to us. We absolutely want to make sure that we are approaching this work with equity in 5 mind. The Storm Water Management, the Storm Water 6 7 Resiliency Plan and the maps that were provided with those plans, show us where the risk is from rainfall 8 itself but we also need to overlay equity concerns on 9 top of that in order to decide where to make 10 11 investments in these cloud burst management practices and other stormwater investments. 12 13 I also just wanted to address, you mentioned public housing. We have invested over \$3 billion in 14 15 public housing upgrades since Sandy specifically 16 focused on resiliency. 17 CHAIRPERSON RODRIGUEZ: Look, I just feel that it 18 is better to take the approach to recognize where we have failed. It's a more positive conversation 19 because if we take the approach to justify and come 20 21 out with the numbers, make things beautiful, I can 2.2 tell you last year, I was with Carlos Menchaca in his 23 district and based at some of those public housing and those were projects that are still as a result of 24 25 Sandy. Still, NYCHA has not fixed it and I think

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 52 2 that if we get back and forth, yeah, we have a couple million dollars as I say, DEP, you go to Riverside 3 4 Drive in Dyckman and Seaman or go back to the record on the time of Bloomberg, Mayor de Blasio first and 5 second term. No one have been putting in the 6 7 resources to deal with why the drain is not working. Why, and I can tell you without being an engineer, 8 9 for me it's about all the water come from the Fort Triumph Park. When the summer is over, all those 10 11 leaves, they go underground and it's like an hour or 12 two of raining and that whole area is like a little 13 lake. 14

You go to the other area to the east side, 15 Dyckman down the riverside, the Highbridge Park is the same thing. So, I feel like it's you know like, 16 17 it's better to understand that each of us will bring 18 different you know experience in the district that we 19 represent. As I said from the beginning, I'm one of 20 those Council Members that I am happy to say working 21 together with this administration, we are making poor 2.2 accomplishment. But the level of frustration and how 23 certain parts of the city have been left out is real and we have to take responsibility. And that's when 24 25 we talk about the local part. Because when we talk

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 53 2 about the citywide view, our responsibility to 3 protect every singe 1.6 million New Yorkers, regardless of the socioeconomic ethnic background or 4 with the [INAUDIBLE 1:00:37]. 5 So, but this experience you know, we leave Sandy, 6 7 we leave the others natural disasters and to deal 8 with things that can take this by surprise. It's 9 difficult to follow and I feel that again, like, I'm happy to you know bring up those numbers of the 10 11 investment of City Hall but I also understand that 12 there is a lot more and we have to recognize that in 13 a certain area, we could do better. Preparing before, during and then after this time. And my 14 15 second question before I turn it to my colleague is 16 related to when it comes to Sanitation, who are and 17 again, I will understand that DEP has a lot of 18 responsibility to be sure that the system is working. 19 But if you go to a particular area I can bring 20 [INAUDIBLE 1:01:46] and Broadway and you look under 21 the train, you see a lot of garbage. You see that 2.2 that area are not clean, so when the water comes in 23 many of those locations, they are close to entry train stations. What type of assessment has been 24 25 done? How often are we looking at the drain system

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 54 2 to be sure that they are working. That they are clean, so that we are prepared? 3 4 VINCENT SAPIENZA: Thank you Mr. Chair for that question. So, there's about 148,000 catch basins 5 around the city and DEP programmatically inspects and 6 7 cleans them all year around. But you're right, that street litter is the primary problem that we see. 8 In some commercial districts, we're out cleaning catch 9 basins much more frequently than in residential 10 11 areas. But we do work with Department of Sanitation, 12 he street sweeping program, with New York City DOT 13 for cleaning highways and that's part of our regular program and also part of the flash flooding emergency 14 15 plan that we carry out a day or two before knowing 16 storms are coming.

17 EDWARD GRAYSON: Yes Chair, so uh, the routine 18 maintenance and cleanliness above grade, so above the 19 grades that comes into our purview because we sweep the streets and try to keep them clean. Everything 20 21 below grade naturally gets cleared out by the 2.2 professionals at DEP because they have to go in and 23 get inside the grade. And most of the city that is included in the alternate type parking program gets 24 mechanical broom service at least once a week and we 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 55 2 have additional MLP staff as well as district 3 officers that will take appropriate action when they see a litter condition. However, litter does build 4 5 up every day as we all know, so it's more of a balance in this particular event and whenever we 6 7 enact the flashflood plan, the Department of Sanitation goes out to a specific number of catch 8 9 basins that are in known problematic areas to inspect, clean everything that's above grade if there 10 11 is any deficiencies there and notify DEP if they have to go below grade prior to the start of the storm. 12 CHAIRPERSON RODRIGUEZ: DEP in collaboration of 13 Sanitation have the men and women in power. How 14 15 many, what is the men in power that you have 16 dedicated to do regularly going out and maintain 17 those sites clean and ready for water, when the water 18 is coming? And can we think about a system where a 19 resident take a photo and send information that the agency can say we can you know go and clean that 20 21 particular side in these numbers, the numbers a week? 2.2 VINCENT SAPIENZA: Yeah, Mr. Chair, so we do about 23 50,000 catch basins cleanings per year. Most of them are just programmatic but we do take 311 calls for 24 25 homeowners as you know I have some ponding on my

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 56 2 block because I think a catch basin is blocked up. We'll go out and do those but again, most of the work 3 we just do based upon inspections and programmatic 4 cleaning, again, you know as Commissioner Grayson 5 mentioned you know a lot of it is street debris. So, 6 7 the message to get out to everyone is you know try to avoid littering because that's primarily what's 8 causing catch basins to get blocked up. 9

10 CHAIRPERSON RODRIGUEZ: But you don't think that 11 the city can have the men and women in power that 12 when they identify anyone who take a photo and can 13 notify the agency that they can commit it to say a 14 week ago, seven days or two weeks, we can send a team 15 to clean that site?

VINCENT SAPIENZA: Yeah, and we generally do so. 16 17 If someone either contacts us or more likely through 18 311, we're generally out there within a week to that. 19 CHAIRPERSON RODRIGUEZ: Okay, okay. My last question to the NYPD, you were the ones that have the 20 men and women out at night taking care, giving 21 2.2 direction to people, especially around the train 23 stations. What is the experience that you guys as an entity of DOE when it comes to safety in directing 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 57 2 people, especially those who were trapped in the train station and the surrounding area to be safe? 3 4 RAYMOND SPINELLA: There were six trains that was 5 stopped in a tunnel. We evacuated approximately 135 people and basically we use our emergency service 6 7 team who are more trained in evacuation procedures than regular patrol people. 8

9 CHAIRPERSON RODRIGUEZ: Chief, what can be 10 learned? What do you think based on that experience 11 we can say there is a one, two or three team that we 12 can do better to deal with this type of situation?

13 RAYMOND SPINELLA: So, what we learned is uhm, in 14 order to uhm, be prepared, what we're going to do in 15 the future. We know which stations you know flood 16 uhm, when they have an excessive of rain. So, we're 17 going to pre-stage people in those locations.

So, we'll either close those stations or uhm, uhm, we'll have cops pre-staged at those particular locations where we experience historical flooding. CHAIRPERSON RODRIGUEZ: Okay, thank you. My colleagues are also waiting. I'm going to give a turn to them so I will give back. Chairman Justin Brannan.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 58 2 CHAIRPERSON BRANNAN: Thank you Chair. I just 3 want to read into the record quickly, one of my 4 colleagues Councilwoman Selvena Brooks-Powers who couldn't join us today but she represents Far 5 Rockaway Arverne and Edgemere. So, I wanted to read 6 7 this into the record quickly, her statement. 8 Hurricane Ida is just the latest reminder, climate 9 changes are a new reality and it's already impacting our communities. 10

Storms that used to be once in a lifetime events are now occurring much more frequently. The response from all levels of government needs to meet the urgency of the moment and we must commit to solving this crisis.

The City Council has made historic progress in combating climate change by setting ambitious climate targets to reduce the city's carbon emissions. For instance, the Climate Mobilization Act of 2019 introduced higher standards for new large building constructions, upgrades for utility efficiency and green roof renovations.

Other key pieces of legislation like the five
borough resiliency plan hopefully will get done soon.
We can all see the evidence that our current work is

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 59 2 not sufficient. Videos circulate social media, 3 flooding in our streets and subway stations, forest 4 fires ravaging across the west coast and destroying homes. It's time we act and do more. We cannot 5 afford to continue responding reactively to the 6 7 effects of climate change, we must be proactive. We must redouble our efforts. This means investing in 8 9 NYCHA, our public transportation infrastructure and so much more as we as New Yorkers rely on each day. 10 11 Otherwise future disasters will continue reeking deadly havoc on our communities. 12

Our city agencies must be equipped and prepared for these disasters. We know what agents — we need to know what agencies like the MTA are doing to safeguard our critical infrastructure against the threats of a warmer world. That's from Councilwoman Selvena Brooks-Powers. Thank you for allowing me to read that into the record.

20 Uhm, I guess for OEM, how is - the information 21 that we receive from the National Weather Service, 22 how is that then synthesized into, you know, what the 23 preparation will be? I think as a Layman, it 24 certainly felt like we were with tropical storm 25 Henri, it felt like we were really bracing for it and

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 60 2 prepared for it and then I felt like Ida was the 3 opposite. Like, we knew it was coming but we weren't 4 making as big a deal as we were making about Henri and I'd like to know that and I'd like to know the 5 information that when National Weather Service puts 6 7 out you know information that you and I or me, I might just see it as a Tweet or something. 8 9 On a higher level with OEM, how is that information synthesized and what is done with that 10 information? 11 JOHN SCRIVANI: Yeah sir, thank you for that 12 13 question. So, although they are both considered 14 tropical systems, the approach of Henri coming from 15 offshore makes it a much more difficult challenges 16 because we're looking at the cultural storm impacts 17 like a Sandy type event and we're looking at 18 evacuations. Our communication is coming from both 19 the local Weather Service Office and the National 20 Hurricane Center in a situation like that. 21 Ida is completely different because it made 2.2 landfall in Louisiana. It then just gets handed off 23 to the Local Weather Service office. We are no longer communicating with the hurricane center 24 because it is not a tropical system by definition 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 61 that's coming from the ocean at that point, it's coming over land.

So, we are getting communication as we you know 4 mentioned in the testimony. We started watching this 5 storm well in advance. We were forecasted to get up 6 7 to six inches of rain but as was mentioned earlier, six inches of rain over five, six, seven hours is not 8 9 what we received. The original forecast was for a very heavy rain event over multiple hours. 10 That time 11 ended up getting compressed to as Commissioner 12 Sapienza said the intensity that the system, the 13 storm sewer system just could not handle.

14 So, our communication depending on the approach 15 of the storm, the type of the storm is a little bit 16 different because the National Weather Service does 17 have different tools and different you know I guess 18 entities within their own program that we'll 19 communicate with. But because of the difference of 20 one coming from the ocean and one coming over land, 21 the way we receive our information is not exactly the 2.2 same. I hope that answers your question.

CHAIRPERSON BRANNAN: Sure, thank you so, are there now, what have we learned I guess from the signs that Ida was giving us. That maybe obviously a

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 62 2 storm that devastates New Orleans and then travels 3 1,000 miles across land a couple days later to, to 4 wreak havoc on you know Hollis Queens is 5 unprecedented. But are there things now that we saw from Ida that are going to be harbingers for the 6 7 future of knowing okay, well, you know are we going to sort of go to the mattresses so to speak for every 8 storm. I mean, how are we going to sort of have that 9 triage? 10 11 JOHN SCRIVANI: It's very challenging. Uhm, I'm 12 not a meteorologist or a climate scientist. I'm you 13 know reliant on what the forecasters give us. Uhm, but I have to look at it through a different lens to 14 15 your point of are we going to go to the mattresses 16 and go you know overboard? 17 As I mentioned in my earlier statement, we're 18 looking at worst case scenario much differently. 19 They are giving us information. If they tell us 20 there is six inches of rain, uhm, we'll work with the 21 team to assume that's going to come down in one hour

22 possibly and what would we need to do you know prior 23 to that to make sure that residents are alerted. 24 Obviously the basement apartments is a super focus 25 now, so we got to figure out how to get that message COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 63 out. We need your help to do that. You know your communities and you know; we send messages out in multiple languages up to 14 languages but we want to make sure we are getting the right message to everybody.

7 So, on the, you know, what have we learned? Ι mean, I think we've learned that we just have to be 8 9 hyper aggressive with letting people know what we're seeing. You know, we can't be reliant on peoples 10 11 apps on their phones or watching the news for the 12 weather. We're going to, you know the Mayor has 13 asked us to over communicate and that's what we're planning on doing. We're over communicating and 14 15 being as aggressive as we can to get out there and 16 execute the plans and clean the streets and as well 17 as message people as much as we can and really give 18 as much advance warning of what people should do. 19 And that was the preparedness message I was speaking 20 to earlier.

CHAIRPERSON BRANNAN: Thank you. For the - the Mayor recently announced the formation of the 30-day extreme weather taskforce, so two questions. Has the taskforce convened yet and then after 30-days will

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 64 2 there be a report on the findings or - and then how 3 will those recommendations be acted upon? 4 JOHN SCRIVANI: So, the answer to both of your questions is yes. We have met multiple times 5 already. We met the day after he announced it and we 6 7 have met almost every day since. Uhm, there will be a report that's generated that I'm sure the Mayor 8 9 will be communicating himself. CHAIRPERSON BRANNAN: Okay, thank you. Uhm, 10 11 Commissioner Sapienza, uhm, I want to talk about the 12 very exciting and sexy issue of the New York City 13 sewer system. 14 Uhm, as I have learned now uh, the city's sewer 15 system is designed to handle about one in a half to 16 two inches of rain per hour. Is that correct? 17 VINCENT SAPIENZA: That's correct. 18 CHAIRPERSON BRANNAN: Okay, so, now that we're 19 seeing, we're seeing storms now that are bringing us more than three inches of rain an hour. Uhm, which I 20 21 think we can all agree is extraordinary. Uhm, but no 2.2 longer unprecedented. 23 Uhm, what is the plan going forward? Is the city planning to redesign the sewer systems to increase 24

25 capacity? That's first question and second is, any

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COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 65 2 uh, current replacement projects that are underway. When a new sewer is installed at this point, I'm 3 hoping that we're not installing those same sewers 4 5 that we're seeing are being you know inundated. So, is the new model sewer capable of handling more water 6 7 and are there projects underway right now that are installing those new sewer systems? 8 VINCENT SAPIENZA: So, it's a complicated 9 question but I'll try to boil it down as much as I 10 11 can. So, right now, the system is designed to handle 12 about half of what we saw in Ida you know, from going 13 from one and three quarter inches to three and a half inches in an hour. 14 15 So, to say we're going to, you know rip out the 16 entire 7,500 miles of sewers and put in sewers twice 17 as big, is not going to happen. We know that. It's physically infeasible. It would cost \$100 billion, 18 so we're not going there. So, where we are looking 19 is, where is the supplement in the system? You heard 20 from Jainey about the Green Infrastructure program. 21 2.2 Keeping storm water runoff out of the sewer system in 23 the first place. Using the ground to absorb it or retain it or store it. So, we're moving forward with 24 25 that.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 66 2 The other thing is supplemental non-network Something called High Level Storm Sewers. 3 sewers. They are called high level because they are just 4 below the street surface, not deep like old 5 traditional sewers. You know, some which may be 70 6 7 feet down, to just peel off some of the storm water in localized areas and carry it away to a local water 8 body, like a river or stream. So, there is a bunch 9 of things that we are doing but uhm, you know we just 10 11 can't say those 7,500 miles of sewers, let's have a plan to double size. It's not feasible. 12 13 CHAIRPERSON BRANNAN: Yeah, no, I mean look, a

13 CHAIRPERSON BRANNAN: Yean, NO, I Mean Took, a 14 lot of the infrastructure that we take for granted 15 under our feet that's 100 years old, we can't send 16 the whole city to Aruba while we replace everything. 17 I get that.

18 But I'd like to drill down on if there are - is there a blueprint for a city sewer right? If I'm 19 getting a new sewer put in in my neighborhood, that 20 21 sewer that's being installed, does it have more 2.2 capacity than the sewers that got overwhelmed during 23 these storms or are we installing the same sewers? VINCENT SAPIENZA: Yeah, so, the answer is it may 24 25 be larger. So, let me explain it this way. So, the

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 67 2 sewer system in New York City is like a tree. On local streets, the sewers are like the branches of a 3 tree. Those feed into larger sewers like the lens of 4 a tree down avenues or boulevards, which then feed 5 into even larger sewers like the trunk of a tree. 6 Ιf 7 you want to say well, I'm having you know flooding issues on my local blocks, I want a larger branch 8 sewer, it really effects the whole system. 9 So, it's just that we can't just upgrade those 10 11 branches without everything else. It makes it 12 complicated. So, that's why again, we're looking at 13 supplementary ways of improving drainage green infrastructure, high level storm sewers, retention. 14 15 Those are more of the better tools for now. 16 CHAIRPERSON BRANNAN: Alright, so, I was speaking 17 with a friend earlier about uhm, normally in the 18 south shore of Staten Island, where normally during just a simple rain storm, they would get flooded but 19 now that there have been new sewers installed in his 20 21 neck of the woods, during Ida, he didn't see any, any 2.2 flooding. 23

23 So, the sewers that were installed say somewhere 24 like in the south shore, are those sewers being

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 68 2 stalled elsewhere and what's different about those 3 sewers? 4 VINCENT SAPIENZA: So, most of the city has what's called a combined sewer system. 5 It's the older type system. It's one type beneath each city 6 7 street that handles both sanitary sewage and storm runoff. Newer parts of the city and in South Queens, 8 Staten Island have two pipes in the street. One for 9 sanitary sewage, one for storm flow. Much better. 10 11 Also in Staten Island, we've developed a blue belt 12 concept. These retainage basins that look like 13 natural system. So, that's helped as well. 14 Uhm, I do want to point out that during Ida 15 though, the rainfall wasn't the same across all of the city. You know, parts of the areas got more, 16 17 parts of the areas got less and that goes into the 18 equation as well. But having separate sewers 19 certainly helps. CHAIRPERSON BRANNAN: Yeah, I mean my district -20 two of the main neighborhoods in my district have 21 2.2 names that include elevation right, Bay Ridge, Dyker 23 Heights. Normally, uh, we're immune from storms. This time, I don't think there was a house in my 24 district that didn't take on water of some kind. 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 69 2 Uhm, so I want to move on but so, the answer 3 then, what you're saying is the answer is not - I'm 4 trying to synthesize this. We're saying that our the city sewers are not built to sustain this much 5 water. But isn't it crazy if we're installing those 6 7 same sewers. Wouldn't we be trying to build a bigger tree using your analogy? 8 9 VINCENT SAPIENZA: Right, and we are. So, we developed master sewer plans to try to do that. It's 10 11 just not going to happen you know within the next 12 year or two. Uhm, and again, in order to take steps 13 very quickly, we want to look at other things in the interim. Building out the sewer system again to be 14 15 twice as big. Maybe it's not even feasible because 16 those pipes can't fit in the street. You know but we 17 certainly want to make them bigger than they are 18 today and build that tree out over the coming 19 decades. 20 CHAIRPERSON BRANNAN: Okay, uhm, I mean, I think one of the things we need to prioritize and I hope 21 2.2 you would agree is that for constituents that tell us 23 that they get flooded on a regular basis, much less than these once in a lifetime storms that now happen 24

three times a month. We've got to prioritize these

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 70 2 projects because if we're getting flooding now in areas where most homeowners have never seen flooding 3 4 before, then the homeowners that have been seeing 5 flooding all along, even sunny day flooding or just in a simple rain storm, uh, these are projects that 6 7 just have to be prioritized. And I certainly have a bunch in my district. I'm sure my colleagues have 8 several in their district. I understand we can't 9 just wholesale replace all the sewers in the city. 10 11 But I think for folks where we know they are going to get flooded; we've got to prioritize those projects. 12 13 So, I hope we can work together on that. Uhm, I want to ask about back water valves. Something I 14 15 knew nothing about until about a month ago. Uhm, 16 these values are used to prevent overflow as a result 17 of back water from a public sewer system coming into 18 your house. During Ida many basements were flooded from backwater from sewage pipes because of the 19 20 combined sewers. 21 Uhm, does DEP have an inventory of how many 22 buildings are protected from such overflows by having 23 backwater valves installed? 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 71 2 VINCENT SAPIENZA: So, just a backwater valve you know we think in many cases it does make sense for 3 4 properties. So, just -CHAIRPERSON BRANNAN: It does or it doesn't? 5 VINCENT SAPIENZA: No, they do, they do, they do. 6 7 CHAIRPERSON BRANNAN: Okay. VINCENT SAPIENZA: Uhm, when there is flooding on 8 9 a street from a heavy rain, water is going to seek its own level and it's going to you know push down 10 11 through pipes, through the sewer connection from homes and can come out in toilets and basements and a 12 13 backwater valve can help to prevent that. So, they're good in that way. The issue is that the 14 15 homeowner then has to maintain them. Otherwise, 16 you're going to have worse problems. 17 So, while we do recommend in certain cases that 18 you install a backwater valve if you're in an area 19 that traditionally floods, that the issue is 20 maintenance and I don't know if we have an inventory 21 but if we do, I'll get that to you. 2.2 CHAIRPERSON BRANNAN: Yeah, I mean I think New 23 Yorkers are always inclined to do their part and their fair share. I think when it comes to taking on 24 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 72 2 sewer water, I think that's where that relationship 3 ends. 4 JAINEY BAVISHI: And if I may? 5 CHAIRPERSON BRANNAN: Yeah. JAINEY BAVISHI: Chairman Brannan, I just wanted 6 7 to add that uhm, the city actually just received a 8 federal grant. We won a federal grant to actually conduct a study of where and when backwater valves 9 work best in the city. So, we had a program to 10 11 install backwater valves in Sandy effected areas. We 12 want to expand to program and so, our goal is to 13 actually put some specific numbers to the number of buildings that could benefit from these and uhm, and 14 15 with the cost of installation and maintenance as 16 Commissioner Sapienza mentioned would be. CHAIRPERSON BRANNAN: Okay, cause I know there 17 18 are cities where - you know for me part of this is sort of lifting that vail of exceptionalism right. 19 20 This is the best city in the world. That's 21 undisputed. But if other cities or states or 2.2 countries are doing things better than we are, we 23 need to be unafraid to steal their ideas. And I see in other cities, they are reimbursing homeowners for 24 installation of backwater valves. 25
COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 73
So, it seems like certainly if we have federal
grant money, something we could be doing here where I
don't think that should be the responsibility of the
homeowner as far as the you know, the payment is
concerned.

7 Uhm, okay, I want to move along because a lot of my colleagues have guestions. I want to be 8 9 respectful. Talking about flooding, the city and Center of New York Neighbors launched this consumer 10 11 education campaign called, Flood Help New York which 12 is really helpful. It's provided flood risk 13 information and support to homeowners who may not understand how this stuff works, certainly I didn't. 14 15 Uhm, do we know if this resource is just for 16 residents in coastal areas or is it being expanded to 17 inland areas?

JAINEY BAVISHI: Uh, thanks for raising this Chair Brannan. Uhm, the program was funded with post Sandy federal dollars and so, it is limited at this time to uhm, coastal areas that were impacted by Sandy.

CHAIRPERSON BRANNAN: Okay and I guess this is broad but what are the city's views on building homes and business in areas that regularly flood now? What

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 74 2 are the city's views on constructing homes and businesses in areas that will regularly flood five, 3 4 ten, twenty years from now? JAINEY BAVISHI: So, you know I think that uhm, 5 we have been actively working to balance the uhm, the 6 7 affordable housing needs we have as a city with our resiliency needs. Uhm, we've started - uhm, so it's 8 9 both about how we build and where we build right. And so, all new buildings right now have to 10 11 incorporate Appendix G, which is one of the most flood resilient building codes in the entire nation. 12 13 Uhm, and we appreciate our partnership with Council to make it that way. Uhm, if a building goes through 14 15 substantial rehabilitation it would do the same 16 thing. 17 We've also started sort of thinking about where 18 we build and how we can limit density in certain In particular, Department of City Planning 19 areas.

20 has created a special zoning designation called, 21 Special Coastal Risk Districts, which limit density 22 in the most flood prone areas. Uhm, so this is to 23 account for the fact that these are places that are 24 flooding on a regular basis and we arrived at the

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 75 zoning designation with intense participation from community residents.

4 We also appreciate Council's partnership on passing Local Law 41 that will mandate the climate 5 resiliency design guidelines, which will take flood 6 7 risk into account in all capital projects including buildings projects. So, you know, we're 8 9 incorporating these design changes to ensure flood resiliency while also taking into account the 10 11 riskiest areas and uhm, applying special rules there. 12 CHAIRPERSON BRANNAN: Thank you. Last thing. 13 The city released a storm water resiliency plan and the storm water maps back in May, I believe. 14 The 15 maps so both moderate to severe flooding from rain. 16 The areas that flooded during the recent storms, how 17 are they depicted on the flood maps? Did the maps 18 predict the level of funding that occurred?

JAINEY BAVISHI: Uhm, yes, they did. They was a pretty significant overlap between the hardest hit areas and the storm water flood maps. Specifically for the extreme scenario, there were two sets of maps that modeled two different scenarios and there was an overlap with the extreme scenario. Some of the places that were shown on the maps that also were hit

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 76 2 by uhm, the remnants of Ida include Central Queens, East Bronx, Central Brooklyn and North Staten Island. 3 CHAIRPERSON BRANNAN: And I know the plan has 4 5 goals and initiatives with some completion dates not until 2027 and 2031. Based on the past month of what 6 7 we've seen over the past month, uhm, and what we know will continue to occur, do we believe these timelines 8 9 should be accelerated? JAINEY BAVISHI: Absolutely, I think the Mayor has 10 11 already acknowledged that the timeline should be accelerated and that's something that we're working 12 13 through with the Extreme Weather Taskforce. 14 CHAIRPERSON BRANNAN: Okay, uhm, I want to be 15 respectful of my colleagues time. Obviously, I mean, we want to be partners in this. You know, I don't 16 17 think, I don't think it helps anyone to come here 18 today and point fingers. Obviously, we want to know what went wrong, also, what went right but I think 19 the main thing is we just don't want to be back here 20 again, right. I feel like sometimes it becomes déjà 21 2.2 vu all over again where you know, I'm feeling like 23 how many once in a lifetime things can I experience in a lifetime or in a week or in a month. But we 24 25 want to be partners in this work, certainly with my

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 77 2 Committee and the committee's here today. So, just 3 to make sure that we're prepared for next time and 4 that this doesn't happen again and that no pain, no 5 gain. If people you know have to dig up streets to do sewer repairs. That's what we have to deal with. 6 7 It's better than getting a basement full of sewage. So, I want to turn it back to Chair Rodriguez. 8 9 Thank you guys. CHAIRPERSON RODRIGUEZ: Thank you Chair. Now, 10 let's turn it to Chair Gennaro. 11 12 CHAIRPERSON GENNARO: Thank you Mr. Chairman. 13 Let me just before I begin, members of my Committee who have been here or are here, uhm, Council Member 14 15 Ulrich was here. Uhm, Council Member Diaz is here 16 and I welcome her as a member of the Environmental 17 Protection Committee. 18 I've been following up with some of the important 19 points that Council Member Brannan or Chair Brannan 20 just brought up with regard to the capacity of the 21 sewer system. Now, when I came on as a staff member 2.2 of the Council, you know for the Environmental 23 Protection Committee 31 years ago, so I go back a long way with this stuff. And it is my 24 understanding, this is my own you know, in my own 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 78 2 memory that once upon a time when the sewer system was first established, it was - of course I'm 3 directing this to Vinney. And uhm, that the sewer 4 5 system had the capacity to process one inch per hour and then there was a new standard of 1.5 inches per 6 7 hour and the current standard is 1.75 inches per hour. Which is a lot of capacity. I don't know, you 8 know, it would be hard to process more than that in 9 an hour. But my question that I'm getting at is that 10 11 we probably have part of the city that has the 12 ability to do one inch and part 1.5 and part 1.75. 13 Does DEP have any sense of like what percentage is at 14 like the higher 1.75 capacity versus the 1.5 versus 15 the one? Is that a known, is that a known thing? 16 VINCENT SAPIENZA: Mr. Chair yeah, so I'll just 17 address that. So, when the sewer systems were 18 originally built going back to the time before the consolidation of greater New York and then right 19 after, uhm, the sewers were under the jurisdiction of 20 each Borough President. And so the designs were 21 2.2 different. There was no citywide standard for a long 23 time. 24 CHAIRPERSON GENNARO: Right.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 79 2 VINCENT SAPIENZA: So, you do have some pockets 3 of lesser than 1.75 inches per hour but for the last 4 50 years that's been the standard. CHAIRPERSON GENNARO: Oh, for 50 years. 5 For 50 years it's been 1.75? 6 7 VINCENT SAPIENZA: Yeah. CHAIRPERSON GENNARO: Okay. And so, how much of 8 9 the city is at 1.75? VINCENT SAPIENZA: We'll get to that number; I 10 11 don't have that off the top of my head. CHAIRPERSON GENNARO: Yeah, now it the case that 12 13 when you have you know part of the city that's at the higher standard of 1.75 feeds into another area of 14 15 the city or another branch of the tree that you get 16 bottlenecks, you get problems. As these - it's kind 17 of like you have a highway that's got four lanes or 18 you know three lanes and then you open up the four lanes, it goes back to three lanes again and you 19 know, you get a little jammed up. Is that a 20 21 phenomenon or is the 1.75 capacity you know kind of 2.2 like on its own network and it all flows smoothly or 23 is it still kind of like a patch work where you get bottlenecks here and there and they tend to be 24 25 problem areas. Is that what exits?

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 80 2 VINCENT SAPIENZA: Chair, we've done much better I'm going to say a little less 20 or 30 years in 3 reducing what was a large number of bottlenecks. 4 Ι 5 won't say they are all gone but we have done a really good job particularly in the Jamaica drainage area 6 7 over the last few years or so. 8 CHAIRPERSON GENNARO: Right, and now, let's get 9 to overall capacity. I am a geologist but not an engineer. You know can you foresee a New York City 10 11 sewer system that has a capacity of more than 1.75 12 inches per hour? We're starting to get in some 13 pretty big numbers here if we're going into like two inches per hour. I mean, that's huge and so, what is 14 15 DEP's thinking in regarding how big we can build in 16 terms of inches processed per hour? 17 VINCENT SAPIENZA: Yeah and it's a great question 18 because we -19 CHAIRPERSON GENNARO: Of course it's a great question. I asked the question. 20 21 VINCENT SAPIENZA: Local, local, you know narrow, 2.2 narrow streets that are you know 25, 35 feet wide, 23 it's tough to get a much bigger sewer beneath there with everything else with electric gas. You start 24 probably beyond two inches an hour to hit the maximum 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 81 2 size on many residential streets. Uhm, but again, that's why we want to look at other things. Keeping 3 storm water out of the system in the first place with 4 5 green infrastructure, with retention, with more porous pavement. We have to use all the tools in the 6 7 toolbox, not just the traditional mark pipe. CHAIRPERSON GENNARO: So, we're looking at uh, a 8 9 build out of 1.75 with a thought of perhaps there could be greater capacity in certain areas. Is that 10 11 like a fair assessment? 12 VINCENT SAPIENZA: Exactly. 13 CHAIRPERSON GENNARO: Okay and uh, and now, in 14 regard to sewer replacement over time and get into 15 those areas that are still less than the standard of 16 you know 1.75. We got 7,500 miles of sewer lines, as 17 per your testimony and if we were going to like 18 revamp the system entirely, kind of like you know 19 rebuild it. Uhm, Over the course of like, what's a 20 lifetime of a sewer main? Is it like 100 years? 21 So, let's just pull a number out of the air and 2.2 say you know, 100 years, we want to completely redo 23 the system. That would mean that we would have to do 75 miles of new sewer mains a year. I don't think 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 82 we're doing that right? I mean, I don't think there is anything close to that.

VINCENT SAPIENZA: I mean, we do - we're getting 4 5 a lot of storm sewers right now. Uhm, the older part of the sewer system we actually do replacements along 6 7 with replacing old water mains and streets. We will coordinate with DOT and DDC to do that work. I don't 8 know if we're quite at 75 miles but we do a lot of 9 replacements but we do much more mileage of new storm 10 11 sewers.

12 CHAIRPERSON GENNARO: Yeah, because my thought 13 involved with the water mains, which is not the subject of today's hearing and also with the sewer 14 15 mains, I think the idea is to figure out you know how 16 many years you want to completely turn the system 17 over and then you know, divide that by 100 and then 18 that's what you ought to be doing every year, you know ideally. Uhm, and so, and just a note to 19 Committee Counsel Samara, I just think we're looking 20 at Samara and oversight hearings, I don't want to go 21 2.2 too deep into the weed zone, this will take up 23 everyone's time. But it's going to be on the capacity of the sewer system, how we're building it 24 25 out uh, and also, on the Storm Water Management Plan.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 83 2 Which is my next line of questioning here. Although I will try not to take too much time. 3 4 So, uh, Director Bavishi and you Commissioner made reference to the release of the Final Storm 5 Water Management plan this year on holding Local Law 6 7 five from which I authored back in 2008 and that law states that the - so this was passed on - passed in 8 9 January, signed in February and it had a date of October 1, 2008, for a draft plan and two months 10 11 after release of the draft plan but no later than 12 December 1, 2008, the final plan was due. 13 So, it's, it's 13 years late. Am I getting that 14 wrong? 15 JAINEY BAVISHI: I think we're mixing up two There was a more recent Local Law passed 16 things. 17 specially related to storm water resiliency. That is 18 the plan that was released earlier this year, the 19 Storm Water Resiliency Plan. I think Chair Gennaro, the Local Law you're referencing is a  $\circ$ 20 21 CHAIRPERSON GENNARO: It's kind of hard to - you 2.2 got to like shout right into the thing. I can't hear 23 you. JAINEY BAVISHI: Can you hear me now? 24 CHAIRPERSON GENNARO: Yeah, yeah, it's better. 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 84 2 JAINEY BAVISHI: Okay, I just said that I think 3 we're mixing up two things. Uhm, there is a more 4 recent Local Law passed requiring a storm water resiliency plan that takes climate risks into 5 account. Uhm, and that's the plan that was released 6 7 earlier this year. I think the Local Law that you're referencing is a more general store modern management 8 9 plan which I'm hoping Commissioner Sapienza can speak 10 to.

11 CHAIRPERSON GENNARO: Yeah, because I was on the 12 internet last night and I saw a uh, you know 2012 13 updates that plan but I couldn't find the final plan 14 online. So, I had the original one like the draft 15 which got all wrapped up in Plan NYC and it was a 16 huge, you know a huge document put out in you know 17 2008.

18 So, like the draft happened and then there was an 19 update in 2012 and that where like the trail goes 20 cold. And so, uhm, uhm, uh, this is to say that you 21 know there is laws that I write and pass, there's 2.2 plan that have to get made but then there is actual 23 work that has to happen. I think the work is more important than like the pieces of paper it's printed 24 25 on but it's important that we uh, you know move these

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 85 2 projects as you know quickly as possible and I'm all 3 for the green stuff. I was the guy that wrote this 4 bill. And so, you know I want all the bottles, all 5 the stuff, all the you know rain gardens, uh, even though my constituents hate them and uh, and we have 6 7 to do that but at the end of the day, when we talk about a storm like this, we really got to build the 8 9 system out fully.

And speaking of building out the system fully, what is the uh, and I think my colleague Council Member Miller may have something to say about this as well. You know, how much of Southeast Queens has no storm sewer capacity at all at the moment, right now today?

16 VINCENT SAPIENZA: So, I don't have that number 17 for you Mr. Chair but uh, you know as mentioned 18 earlier, the Mayor made a major commitment to Southeast Queens. The system was built with sanitary 19 sewers but certainly a lack or if no storm sewers and 20 21 the community suffered flooding's since, you know it's been built in the you know 1940's and 50's. 2.2 23 There were a lot of natural streams in Southeast Queens that drain that area that were filled in by 24 25 you know unscrupulous real estate developers who

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 86 2 subsequently sold that land for residential development and we've now working with the Department 3 4 of Design and Construction have been installing those 5 storm sewers over the last few years. A lot of work, \$2 billion. You know, we've heard from Council 6 7 Member Miller and other elected officials in the area that the system is now working in certain areas but 8 9 there is still a lot to do. CHAIRPERSON GENNARO: Yeah, but this is something 10 11 that I made a big deal about during the budget 12 hearings because when I was Chairman - I left the 13 Council in 2013. I was making a big deal about the Southeast Queens buildout then and that was when my 14 15 hair was all black and I had a 34 inch waist. You 16 know, so I'm still having the same argument or the 17 same conversation. I certainly appreciate you know 18 the huge commitment by the Mayor but the people of 19 Southeast Queens you know have no storm sewer capacity whatsoever and uh, and, and, and next year's 20 21 budget presentation, I think we have to have a date 2.2 certain for when all of Southeast Queens is going to 23 be built out. It's just you know unacceptable not to have that uh, in this time of frequent storms. 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 87 2 So, that's a nod, so let the record show that he 3 is saying yes. Okay and Chairman Brannan was also 4 talking about the check valves. I am introducing a 5 bill; we'll see where it goes. Twenty five years ago, we did the toilet rebate program. Uh, you know 6 the city felt it was in the interest of you know 7 water conversation to make an investment to put you 8 know, fixtures in private homes. I participated in 9 that program. I got a new toilet. You know 1.6 10 11 gallons. It like you know replaced one that was 3.2 12 and it was great. And so, and we went from bringing 13 down one billion and a half gallons a year from upstate New York to like a little under one billion. 14 15 It is what we are living on now and so, it was a huge 16 success but we had to spend money to do it. 17 Now, the backfill prevention devices are a little trickier because you know if the homeowner you know 18 19 wants to have one, there is a maintenance responsibility but people who have sewer lines, like 20 21 I do. I make sure I get it snaked on a regular basis 2.2 and I you know keep it clean and they would have to 23 know that just because the city put it in doesn't mean that they are going to come back and maintain 24 25 But with that said, uhm, you know what I would it.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 88 2 like to see following up on what uh, uh, Chair Brannan made mention of and wrote an op-ed about 3 recently, uhm, I want to make that a law. And 4 5 Samara, maybe we can tie this in with the oversight hearing we want to have on the fill and management 6 7 plan and the buildout of the sewer system but this is something that I you know, because my district, every 8 home including mine had a sewer backup. And my house 9 sits up. 10

11 So, for that, guite an angle, I've owned the 12 house 30 years. I've never had a sewer backup. 13 That's why I never got a check valve. I didn't think I needed one. Now I need one. Uhm, and I am not 14 15 doing this bill to get a check valve for free. I'll put my own in okay, just to let you know. But I 16 17 think it is, I mean, until we do the ultimate build 18 out and even when we do the build out, it's going to be 1.75 inches. You know, if it's a miracle, it will 19 be like two inches per hour but we're going to get 20 21 storms greater than that which means we're going to 2.2 be living with backups. Like as far as the eye can 23 see, that's bad news but that's just reality and you know, there is a fix for it. It's not 100 percent 24 25 but you know, I speak with the plumbing foundation

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 89 and other people and you know people at DEP and they do a you know, pretty good job.

And so, uhm, this is something that I think the 4 5 city kind of has to you know, has to pursue this and also, you know, the city gets claims that go through 6 7 the Comptroller's office every time someone gets a sewer backup. So, I tried to figure out - I tried to 8 reach out to the Comptroller to figure out how much 9 the city is paying out in claims for sewer backups 10 11 and if everyone has a you know backfill prevention 12 device, then those claims go away, the city saves 13 money and people don't get their basements you know 14 full of sewage.

15 And so, uhm, I know you can't you know have you 16 know, uh, uh, uh, detailed comments on a bill that 17 hasn't even been written yet but just you know 18 conceptually, what are your thoughts on that? VINCENT SAPIENZA: So, we're happy to you know 19 provide whatever information and collaborate with you 20 21 on crafting the legislation. You know I think as 2.2 Jainey said, there is a lot of opportunity.

CHAIRPERSON GENNARO: Right, yeah because we're hearing about federal money or whatever and if there is a pot of money from which to do this, I think that

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 90 2 would be, uh, I think that would be great. So, thank you for that. Let me see if I have any, anything 3 else. I'm just going to get a little parochial uhm, 4 5 on the Utopia Corridor in my district, which is a real disaster. This is going back to the you know, 6 7 to like the you know, the early 200's. I met with Jim Roberts, he was a Deputy Commissioner at the time 8 and he had this concept of like the high level sewers 9 and you know and so, you know nothing ever happened. 10 11 Fast forward seven years and back and cars were 12 floating on Utopia Parkway. You know, once again and 13 I don't want too parochial because everyone knows the bad spots. So, you know and to the extent that these 14 15 mitigation measures uhm, you know regarding - uh, I 16 mean, I'm going to ask for something. I'm going to 17 ask DEP to, to, to, to give me some sort of document 18 that you know talks about the areas that flood on a regular basis and uh, and you know, what is the plan 19 for putting in the sort of local mitigation measures 20 that are essentially you know, outside the tree so to 21 2.2 speak because they don't feed into the main system. 23 You know and that's something I really think that I you know need to see because - and you know, God 24 25 Bless your staff. I mean, I was on the phone with

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 91 2 Mike Deloche(SP?) at one in the morning the other day 3 you know trying to get like blocks and so, I mean, I 4 couldn't say nice enough things about your staff. And you know you got Angela, I've been working with 5 forever and all the good people on your team. But I 6 7 mean, I, I, I, think that we have to put this on paper and we got to take a serious look at how we can 8 9 get this stuff in the budget so that a place like Utopia Parkway, I'm just using that as an example, 10 11 you know, don't get you know really devastated on a 12 regular basis. 13 VINCENT SAPIENZA: Happy to get that to you. CHAIRPERSON GENNARO: Sure, and uh, with that, 14 15 uh, uh, Mr. Chairman I yield. 16 CHAIRPERSON RODRIGUEZ: Thank you Chairman. We 17 are going to be put in the clock and uh, first I'm 18 giving the opportunity to Antonio Reynoso as the 19 Chairman of Sanitation Committee and then following 20 him, Council Member Levine. 21 COUNCIL MEMBER REYNOSO: Thank you. Thank you 2.2 Chair for this timely hearing. You know to be honest 23 I really feel that we could have had this hearing four years ago. Uhm, a lot of folks have been 24 25 talking about climate change and how it is going to

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 92 2 affect us. Being the largest city or the greatest city in the world, we would hope that this time would 3 4 never come because we would be prepared. I want to 5 be honest with the questioning that came from Council Member Brannan to the Commissioner and understanding 6 7 the complexities of being able to build out an entirely new sewer system. It stills feels like 8 9 we're kind of writing off the opportunity to start solving for a system that is more - that can do 10 11 better. 12 This supplemental work is also going to take a

12 This supplemental work is also going to take a 13 long time. So, all we have is time I guess at this 14 point to start building things out as of now. Is 15 there a master plan? Which I think you alluded to. 16 Is there a master plan to do better with the sewer 17 system and what does that mean in terms of built out 18 capacity once it's completed?

VINCENT SAPIENZA: Thanks for the question. You know DEP has a very large and robust capital program. Our ten year plan is \$24 billion, so we spent a lot of money both on sewers and on the water system as well. But all of that gets funded through people who pay water bills. And I know we come you know, to this chamber a couple of times a year for preliminary

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 93 2 budget hearings and exec budget hearings. We talk about how much we want to spend. How much water 3 rates are going to have to get increased. We hear 4 5 from the public how you know that would be a disaster for them for their affordability and we get it. 6 7 So, there is always a balance about how much more work we can do. We'd love to do more and we're 8 hopeful at the federal government. We'll have a 9 large infrastructure program and we can get some 10 11 funding from that. 12 COUNCIL MEMBER REYNOSO: Alright, so then this 13 comes to and I'm glad everyone is here. So, planning on sustainability. What if not - the infrastructure 14 15 we're talking about here related to DEP sewer system 16 and the flooding issues that we have are very 17 important. Why is it that the City of New York isn't 18 pouring money into arguably the most important issue of our time, which is climate change? Just why is 19 the DEP concerned about money when if not handled or 20 21 taken care of, we have loss of life for residents and 22 significant long term structure damage to homes, to 23 businesses and to our local city infrastructure. 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 94 2 So, if not, you know what is planning a 3 sustainability of not to address that issue and cover the cost of this work. 4 JAINEY BAVISHI: Well, we're spending over \$20 5 billion in our resiliency program citywide. 6 7 COUNCIL MEMBER REYNOSO: \$20 billion over how many years? 8 9 JAINEY BAVISHI: Uhm, you know, I don't have that figure right now. It's a mix of federal and local 10 11 funding for the most part. And we, as I said in my 12 testimony, we're preparing for a range of hazards 13 right. Uhm, New York City is at risk from coastal storms, sea level rise, storm water and intense 14 15 precipitation like we saw with the remnants of Ida as 16 well as extreme heat. 17 All of these different challenges require different solution sets and we're advancing them in 18 19 parallel with each other. Uhm, you know I will be 20 the first to say that resiliency is a process, it's 21 not an outcome. So, we still have much more work to do and we will continue to move forward aggressively. 2.2 23 I also just want to mention as I said, uhm, in response to previous questions in my testimony and I 24 25 think Commissioner Sapienza has been hitting this

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 95 2 point as well. That we can't rely on the sewer 3 system alone to mitigate our risk from intense 4 precipitation. We really have to pair our investments in the sewer system with other solutions 5 including green infrastructure and what we're calling 6 7 cloudburst management practices. These are specific management practices for heavy down pour like we saw 8 9 with Ida, converting open spaces, streetscapes, green spaces into areas that can store storm water and 10 11 essentially uh, you know provide places for the water 12 to go so that it's not going into the sewer system 13 itself.

14 COUNCIL MEMBER REYNOSO: So, in an effort to 15 allow for other colleagues to ask questions, it's 16 just on two parts. The City Council is constantly 17 moving forward with attempting to pass a meaningful 18 climate chance legislation and we constantly need to 19 get a watered down or a pushed back approach from the 20 administration regarding how aggressive we should or 21 should not be. Regarding changes to building codes, 2.2 expansion of green infrastructure, making sure we're 23 talking about significant lead programs in the buildings out of these buildings. Car infrastructure 24 and the over reliance of vehicles in our city. You 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 96 2 know, expanding a bike lane in the Brooklyn Bride for six feet as opposed to having an expanded lane on 3 4 either side in an effort to accommodate drivers which 5 also effects climate change. We are always getting pushed back from the Mayor's Office. So, it might 6 7 not be something that in the short-term we pay attention to but long-term, all those decisions are 8 making it more and more difficult for us to protect 9 our residents and I'm talking about loss of life here 10 11 and I want to make sure that is not lost upon us. 12 The last thing I would say is tree pits. We do 13 these bioswales in some parts of the neighborhoods. There is no reason why when we replace, insert a tree 14 15 pit, it is not a bioswale. Why is it that basic 16 infrastructure that makes significant changes that 17 could assist us? Why is it every time we are 18 replacing a tree, we're expanding tree lot sizes. Why not make them all bioswales? Or is that also a 19 cost issue or is it a problem because of another 20 21 infrastructure issue that we may have. And that is 2.2 my last question. Thank you so much. 23 VINCENT SAPIENZA: Yeah, I could address that just quickly and we are looking at putting rain 24

gardens, bioswales wherever we can in the city.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 97 2 We've already put 11,000 of them. In some areas, 3 it's just -4 COUNCIL MEMBER REYNOSO: We have, there was a one 5 million tree project that was put forth by Mayor Bloomberg, one million trees. And we're talking 6 7 about how many bioswales as if it is a significant number. \$11 dollars into one million it's almost 8 9 statistically irrelevant and insignificant. So, I just want to ask, why is it that when we 10 11 have an opportunity to install infrastructure that is meaningful, that we're not taking advantage of that? 12 13 Why is it not parallel to the work that do? VINCENT SAPIENZA: No and I'll answer that 14 15 because in some areas, in many areas, the subsurface 16 just isn't feasible for a rain garden. There may be 17 rock, so it's not permeable. 18 COUNCIL MEMBER REYNOSO: What is that number? 19 VINCENT SAPIENZA: It may be - there may be -20 COUNCIL MEMBER REYNOSO: What is that number Commissioner? 21 2.2 VINCENT SAPIENZA: Yeah. 23 COUNCIL MEMBER REYNOSO: So, these numbers? \$20 billion and you don't have a timeline as to when you 24 25 are going to spend that \$1 billion. That could be

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 98 2 over 20 years. It's \$1 billion a year. It makes it 3 less significant but when it comes to this, how many of our tree pits are incapable of becoming bioswales 4 because of the infrastructure issues? 5 VINCENT SAPIENZA: I, I, I want to say we've 6 rolled out the most aggressive green infrastructure 7 program in the United States. We have 11,000 rain 8 9 gardens. We've built, we continue to build more. We will look at all tree pits but in many cases it's 10 11 just it's on the wrong part of the street. You are 12 not going to get the run off. This is a lot we look 13 at to build those engineered sub systems. 14 COUNCIL MEMBER REYNOSO: Look, I want to be 15 helpful like all of us here want to be helpful, but 16 this idea that we're doing enough is not, is not the 17 way we should be approaching this. VINCENT SAPIENZA: No, no one said we're doing 18 19 We know we need to do more. enough. 20 COUNCIL MEMBER REYNOSO: The most aggressive, the 21 most aggressive climate change whatever in the 2.2 country, that is a submission here that we're doing 23 enough or that we are the best. We are way behind. Climate change is real. My kids, our next generation 24 25 is going to suffer through this, so I can't except

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 99 2 that the standard that we're setting forth to solve for climate change is something that is just the best 3 in this country. It should be enough or effective or 4 5 sufficient enough to solve the actual problem. Till be get there, which we are not, then I don't care 6 7 what number you are in rankings regarding to like how successful you think that is. 8 VINCENT SAPIENZA: If we've given that impression 9 that we think we're doing enough, we know we're not. 10 11 We know we need to do more. We know investments have 12 to come from elsewhere to get there. That's the 13 point. COUNCIL MEMBER REYNOSO: Thank you. I appreciate 14 15 that. Thank you Chair. 16 CHAIRPERSON RODRIGUEZ: Council Member Levine 17 followed by Council Member Holden. COUNCIL MEMBER LEVINE: Thank you Mr. Chair. 18 Ι actually want to follow-up with some of the excellent 19 points that my league Chair Reynoso was just making. 20 21 Uhm, Director Bavishi, you said very well that it's 2.2 not enough only to upgrade and modernize our sewer 23 system. We have to keep water from going into the sewer system in the first place and that's this green 24 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 100 2 infrastructure that Chair Reynoso and many on the panel have been speaking about today. 3 4 There is a map on the DEP's website. DEP Green 5 Infrastructure Program Map, I am sure you know it. Has nice green and yellow dots and blue dots 6 7 everywhere you have a green infrastructure project. I think I sese about, I don't know, 25 in Manhattan 8 out of the 11,000. Is the map incomplete or has 9 Manhattan largely been left untouched? 10 11 VINCENT SAPIENZA: Council Member, we've been 12 focusing primarily on areas where there are water 13 quality impacts. Through now, we've looked at where we can reduce the amount of runoff into the combined 14 15 sewer system that ultimately during storms could overflow untreated waste water into water bodies like 16 17 Newtown Creek or Barry Bay. So, that's been the focus so far. 18 Manhattan also presents other challenges just for 19 the permeability of the soils, what's underneath. 20 21 But we want to flood all five boroughs with as many 2.2 bioswales as possible. There may have been a time where we didn't understand that Manhattan could flood 23 but certainly after this summer, we understand that 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 101 2 even elevated areas like Washington Heights are 3 incredibly prone to flooding. 4 When the flooding's coming from above, not just from the river or the ocean, nowhere is safe. 5 And particularly in the hilly terrain of uptown 6 7 Manhattan, we have seen a level of flooding that it's miraculous no one has died. You've seen the video. 8 The threat is very real. There is no part of the 9 city that is immune from the threat of extreme 10 11 weather, heavy rain events and flooding and as the 12 Council Member - as Chair Reynoso said, uh, I think 13 there are 600,000 street trees in New York City. Do you know how many of them currently have bioswales 14 15 under them? VINCENT SAPIENZA: I don't. 16 17 COUNCIL MEMBER LEVINE: It's probably at best in 18 the hundreds if I'm not mistaking. Many in the low 19 thousands. That's probably overly optimistic. So, measured against the scale of the potential, we have 20 21 barely begun, barely begun this project and leaving 2.2 large parts of the city, most of the Bronx or the 23 South Bronx and Northwest Bronx, also similarly largely unimpacted by this project so far. 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 102 2 Another way to measure our progress is I guess 3 the portion of storm water that's being diverted by 4 this infrastructure. Can you give us an estimate on that? 5 VINCENT SAPIENZA: We have, we put out a green 6 7 infrastructure report. I don't have the details on the top of my head but we can get it out of our 8 9 annual report. COUNCIL MEMBER LEVINE: But it's probably still 10 11 what -12 VINCENT SAPIENZA: It's a small - it's a small 13 amount. COUNCIL MEMBER LEVINE: Single digit percent? 14 15 VINCENT SAPIENZA: For sure. 16 COUNCIL MEMBER LEVINE: So, as, and my time is up 17 and I will wrap up but as Chair Reynoso said, 18 measured against the scale of the crisis, measured against the potential to put an upside to this. A 19 20 city of 700,000 street trees, 800 playgrounds or more, uh, we have huge potential to divert billions 21 2.2 of gallons of water from going into our sewers to 23 eliminate flooding, to eliminate overflow into the rivers, which is a sanitary disaster as you know. 24 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 103 2 And uh, I think you're hearing from us the 3 urgency in doing far more than we've done today. 4 None of what we have done is enough and we now not to think bigger than ever in the midst of a climate 5 change disaster, which is already here. We need to 6 7 do more and we're going to continue to push for that. Thank you Commissioner. Back to you Mr. Chair. 8 9 CHAIRPERSON RODRIGUEZ: Thank you Council Member and before Council Member Holden, you know before 10 11 when I mentioned the two particular locations in Riverside Drive and Seaman Avenue down the Fort Tryon 12 13 Park, Nagle Avenue and Dyckman under the High Bridge That's a typical sample of what the Council 14 Park. 15 Member said. Twelve years that I will have this month. That's two months from now. Twelve years 16 17 that I've been preaching day by day to the 18 Administration to agency. 19 An hour of raining, the water has accumulated there. And part of that approach is that. Manhattan 20 21 is taking care of but where? So, even though I said 2.2 at the beginning, I said I don't want to bring the question because that's a fact. I want to be able to 23 work closely with you and see how we can pay closer 24

attention to locations such as those two. The higher

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 104 2 point of Manhattan is in Washington Heights. A six 3 floor building at the George Washington High School 4 give you the view of the water center and the [INAUDIBLE 2:02:24] Bridge. We have 600 acres of 5 land. With all those parks together. Council Member 6 7 used to be the Chairman of the Committee Park. High 8 Bridge Park, Fort Tryon Park and Inwood Park and I 9 don't think that we as a city have been giving attention to those particular challenges. 10 11 So, I hope again, working with you in the time

11 12 that we have remanding, in the role they continue 12 that we have remanding, in the role they continue 13 playing, that we can really pay attention because for 14 me this is about why we have not fixed it because 15 that's not a mainly middle class and upper class 16 community.

VINCENT SAPIENZA: No, and the point you both bring out about hilly terrain with more intense rainfall means more water coming down you know from those hillsides into lower drainage areas. It makes it even more challenging.

22 CHAIRPERSON RODRIGUEZ: [INAUDIBLE 2:03:10-23 2:03:18] those types of situations. You go to Nagle 24 they say eight or nine, many of the restaurants 25 there. So, again, like and for me it's about your COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 105 team and our team in the city, we know about it. And that's why the level of frustration, that's why we at the same time that we want to continue work in collaboration.

Manhattan has not been a priority and I don't 6 7 want no one from the upper west side, from the upper east side to be dealing with flooding as we do in the 8 9 other part of Manhattan. But sometimes when we take the approach of Manhattan, we look down 96<sup>th</sup> Street. 10 11 We don't look at [INAUDIBLE 2:03:55]. We don't look 12 at the other park. So, I just hope that you know, 13 with you and the other agency, we definitely should be paying close attention with the time that we are 14 15 reminded and of course we will continue working hard with the future administration to address the issue 16 17 of inequality that has to face of any Super Storm, of 18 any storm, of any raining that will affect the City of New York. 19

20 COUNCIL MEMBER HOLDEN: Thank you. Thank you 21 Chair. Thank you all for your testimony. 22 Commissioner Grayson, I want to congratulate you and 23 praise you men and women who did a great job. In the 24 days after the storm, they continue to do a great 25 job. Uhm, I just have a you know, a few things on

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 106 2 uh, I believe a lot of this obviously, it's the 3 superstorms that we're seeing but a lot of this is 4 also self-inflicted and I'll explain that. Over development, we've seen overdevelopment for 5 decades and every time a community like mine or a 6 7 district like mine tries to fight it, uhm, we tell the developers well, our sewer system is not going to 8 take this and the city always comes back. City 9 planning and BSA, they always say, no, it's fine. 10 11 And it's not fine. We've seen accident - obviously 12 we have accident prone locations in traffic in DOT 13 but we have flood prone locations here with DEP that 14 historically, doesn't need a superstorm to flood. 15 Cooper Avenue underpass in my district, the water 16 was up to the balcony here. Uh, it could have killed 17 people. Basements, apartments, which I have a lot, 18 uh, we report them, nothing happens. Nothing happens, it's just we can't gain access or we just 19 20 don't have the resolve to correct it. Like the Mayor 21 said, we shouldn't fine them. Well, I beg to differ 2.2 because it does, illegal apartments actually test the 23 sewer system a lot and you know that Commissioner,

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I have a lot of in my district, those get flooded

you've seen that. Just like community drives, which

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 107 2 because essentially the city allowed those designs in the past and then we continue to pay the price. 3 But 4 there's no - there doesn't seem to be a taskforce, 5 which I had recommended and I have a bill for this, where multiple agencies respond to these locations 6 7 and try to correct it.

Paving over properties, we came up with a law 8 9 against that and yet, it's really not enforced. I put that in my newsletter every few months. I have 10 11 don't pave over your property to create new parking. 12 It's a big problem. We're creating these rain 13 gardens but we're not enforcing people you know really paving over their properties to the point 14 15 we're exacerbating the sewer system. And we need to 16 identify the locations that are flood prone. And 17 then descend on them to try to solve it.

18 Yeah, rain gardens, literally it's a drop in the bucket. Obviously I know that but we need to enforce 19 regulations and not, you know, not tell people - and 20 tell people, don't pave over your property. If you 21 2.2 do, you'll get fined. Because it is going to hurt 23 your neighbors, hurt the city and actually flood the areas but we're not correcting the flood prone 24 locations. Really not and my district will have 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 108 2 sewer projects for 50 years and still not catch up because of over development and because of illegal 3 4 apartments. And that's the, but again, we keep 5 approving building projects in our city that can't tolerate obviously or the sewer system cannot take 6 7 the capacity and that's historic.

8 So, I would just like to ask you about what we 9 could because you mentioned this in the beginning 10 about addressing the community driveways which are a 11 huge, huge problem.

VINCENT SAPIENZA: Thanks Council Member. So, I'll address a few things. So, first, just talking about how much of the city is now impervious and you know as Jainey mentioned, some of the things we're doing to look at retention basins. The new unified storm water rule that's being developed or require new developments to do onsite storage.

So, that's one thing. We have a study underway to look at ways of billing property owners, essentially disincentivize them to pave over lots. So, that's underway as well. The community drives you know certainly that was brought to; you know to the top of the list during Ida. A lot of these driveways are you know essentially below grade to
COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 109 2 provide access to garages that are basement levels and now many of those garages are living spaces. 3 4 There is just insufficient drainage. Private 5 property people put in, we saw seepage basins, drywells, obviously not enough to handle the flow. 6 7 The mayor asked us under this 30-day plan to take a look at those to see how best we can provide 8 9 drainage for those back yard alleys. COUNCIL MEMBER HOLDEN: But do we have like, to 10 11 address that, yeah, we have a plan or we'll try to 12 come up with a plan but we're getting to a point 13 where even thunderstorms, normal summer thunderstorms are flooding those locations. So, what I'm saying is 14 15 it's not yeah, it's not just addressing super you know storms, it's really the design of the community 16 17 drives, our problem and at this point, with the 18 superstorms, they are jeopardizing peoples lives and so, we need to address this but have like a date 19 20 where you will come back and say, this is what we 21 have to try. And if it needs extra funding from the 2.2 city or the City Council, we could address that but 23 there are many districts around the city that have community drives and they are a design floor in some 24 25 low lying areas. And certainly drainage is a big

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 110 2 problem. But again, a joint effort from all the 3 agencies, your agency, uhm, department of buildings, 4 sanitation, all these agencies coming together and 5 forming a solution to address especially the flood prone locations. And just one other thing, you look 6 7 at the LIE today, the Long Island Expressway. They 8 have dozens of catch basins that are totally clogged 9 with dirt. They haven't been cleaned in it looks There is trash all alongside the 10 like vears. 11 expressway. No other city has this. No other large 12 city has such a problem with trash especially on our 13 atrial highways. Who is responsible for cleaning 14 those catch basins on the, let's say the expressways? 15 VINCENT SAPIENZA: So, we've been working with city and state DOT to make sure that those catch 16 17 basins are cleaned on a more regular basis. We've 18 also DEP and our contractors have been, you may see 19 them out on the Long Island Expressway, these large 20 what we call vactor trucks, cleaning, cleaning out 21 that material. It's a challenge. People for 2.2 whatever reason throw garbage out of their windows as 23 they are driving. COUNCIL MEMBER HOLDEN: Just west of Maurice 24

25 Avenue on ELIE, where it's under the large six lane

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 111 2 LIE clogged for years. Trash for years. Dirt has built up so much it's clogged. 3 So, this is the problem that we're facing all 4 5 over the city. So, we need to be proactive rather than reactive all the time. Thank you Commissioner. 6 7 CHAIRPERSON RODRIGUEZ: Thank you. I want to acknowledge Council Member Cabrera. Now we have the 8 9 next three Council Members. Council Member Miller, Rose and Koo and then after they ask their questions, 10 11 we will have the MTA who are ready waiting for them 12 to take the second part of this hearing to hear on 13 what happened from the perspective of public 14 transportation. Council Member Miller. 15 COUNCIL MEMBER MILLER: Thank you Mr. Chair. Good afternoon to the panel and thank you for being 16 17 here to some of our partners and I, as one who lives 18 and represents a designated flood area. One who has 19 experienced all of the phenomenon's that we're talking about here today in southeast Queens and the 20 21 check valves and the sump pump investments and all 2.2 those things that just had not worked for years. I 23 am here to at least attest to uhm, the fact that the recent investment in southeast Queens for the most 24 25 part has worked. That in areas such as Cambria

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 112 2 Heights and Saint Albans and Springfield Gardens and even Rosedale, uhm, after the last two storms that, 3 4 that members of the community are really talking about the fact that the traditional flooding places 5 had not flood right? And that has been a measure 6 7 when, when you live in a community that traditionally floods and it has been a big issue. 8 So, we are very appreciative of that. But you 9 cannot quantify the success of such a program when 10 11 you measure it against the loss of life. And 12 unfortunately, uhm, we had that in the district as 13 well. And the most important part that it occurred and probably on the infamous 183<sup>rd</sup> Street. And I 14 15 don't want you Commissioner Sapienza to really get into the details of that so much as to talk about 16 17 number one, how do we support families that have been 18 impacted in a way through coordination and services and where are we now and what do they need now? 19 Ι know we talked about early uhm, Red Cross and other 20 folks coming in but there are folks who still don't 21 2.2 have places to live that are food insecure without 23 power and gas and things of that nature there.

24 So, I want to talk about agency uh, coordination 25 but there's also a reality that in these areas that

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 113 2 continually flood that have flooded quite frankly for you know that lowline area there goes back more than 3 a century. And I don't believe that there is much 4 5 that we can do and whether or not we continue to pour money into this black hole and has the city and its 6 7 engineering expertise come out and take a real hard realistic look about where we develop uh, in the 8 future but also, can we allow our residents to now 9 uhm, be jeopardized in such a way, in a life 10 11 threatening way and are we taking a hard look at 12 potentially condemning, building a park and 13 relocating families throughout the city. 14 Specifically, you know obviously that's a 15 southeast Queens issue and if we can talk about 16 agency coordination providing services uhm, and how 17 that happens. Because we've been reaching out to the 18 traditional hotspots and nothings happened but on a regular - last night I got a call that Allen Senior 19 Facility has ten feet of water. And elevators aren't 20 21 working and they are food insecure. And you know, 2.2 like, how do we know these things? Are they 311 23 calls? What does that coordination look like and how do we provide these services for these families? 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 114 2 JOHN SCRIVANI: Sure, so I'll take that one. So, after every disaster, our main focus is the people, 3 right? The property uhm, although it's devastating 4 5 for folks. We want to make sure the people are taken care of. So, as I mentioned in my testimony, we 6 7 immediately started doing outreach in these communities. Uh at multiple agency level. Even the 8 NYPD going door to door. I'm sure the Chief can 9 speak to that as well. 10

11 We have services available immediately after the 12 storm for every body from hotels to transportation, 13 to our service centers, to food, to mental health services, language access. All of these things have 14 15 been available since the day after the storm.

As you mentioned the challenges, making sure that 16 17 we get to everybody. Making sure that we are 18 partnered with our community based organizations, 19 with our faith based organizations, with our uh, uh, with you all, right? With our political leaders. We 20 21 need to make sure that anybody who has constituents, 2.2 has an understanding of what services are available 23 and how do we get them to them immediately. We know in some of these hardest hit areas, some 24

people are resistant and they don't want to leave 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 115 2 their home, even if they don't have utilities. And we continually go out there and do outreach to them 3 4 to try and convince them that we have everything they need right now. Between the Red Cross providing 5 hotels and even the Red Cross providing gift cards in 6 7 real time to people to just, if they have to buy new clothes or shoes. 8

So, all of these things are available uhm, for 9 people right now. If there are you know, 10 11 constituents of yours that need additional support, I 12 believe you mentioned something about a facility 13 having ten feet of water. We can take care of that immediately if they need pumping out and Vinny's 14 15 teams have done a great job with that. So, I hope, I 16 hope that answers your question.

COUNCIL MEMBER MILLER: Okay, I'm certainly going to hold you to that because that is a senior facility and uh, and uh, both elevators are out and that is something that I hope -

JOHN SCRIVANI: If you give us that address now, we will -

COUNCIL MEMBER MILLER: Yeah, absolutely we will
and I want to say that we did go to door to door.
The Commissioner was out and we're very thankful for

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 116 2 that but there are folks that and if I may, uhm, Chair and I'll just leave with this. A text that I 3 4 got from a resident early this morning, that it's useless. I spent four hours at Queens College and 5 all the agencies told me was call 311. I went there, 6 7 I'm very disappointed. I am having stress and that elected officials are not doing anything at all to 8 help us. They are just doing you know and everybody 9 is showing up every day but nothings happening. 10 We 11 are still fending for ourselves. I have personally 12 kept my family safe, figure out how to keep them 13 standing in this house and all talk over the last 13 days. When I cannot get a single agency to show up 14 15 and do anything to help us. 16 This is, this is what's happening in the 17 District. Aside from that, that particular location, 18 you know we were there and the infrastructure is just bad. You know, when this happens uh, summer after 19 summer, that is they are sitting on the water and you 20 21 know we were in the house and builders came by and 2.2 vacated it because the infrastructure was so bad 23 because of the damage. Not only the damage, they've been doing work and ultimately you know probably uh, 24

did further exacerbated the damage to the

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 117 2 infrastructure over there. How do we get the support to these families in a real time way? 3 4 And, and uhm, we've been working with various 5 agencies but again, when people come out and they have you know put out a paper for a comptroller in 6 7 the long you know, is not helping folks. They need more immediate services and, and uhm, you know 8 hopefully we can have better coordination in doing 9 so. And I know we have to wait on the MTA, so I will 10 11 just leave it at that, so. CHAIRPERSON RODRIGUEZ: Council Member Rose 12 13 followed by Council Member Koo. Debbie. Debbie, you 14 want to use that one? 15 COUNCIL MEMBER ROSE: Thank you Chair. Uhm, I 16 want to first start by publicly thanking the 17 Sanitation Department for their immediate response to 18 cleanup and to collected debris from the homeowners. 19 It really made a big difference. And uhm, I want to echo Council Member Reynoso's remarks. That we 20 21 remember about this event it's not just about contents. It is about the loss of life. We have to 2.2 23 do whatever we can to prevent you know a recurrence of this. 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 118 2 And so, I'm really concerned about uhm, that we are pitting communities against each other. 3 Those that have more clout, influence, finances and uhm, or 4 just scream louder. That you know they are going to 5 get a more immediate response and what's going to be 6 7 needed to remediate this situation. So, I'm asking all of the agencies to address 8 9 this through an equity lens. And that, uhm, you know, it's handled equitably and in a timely manner. 10 11 I want to thank Chair Brannan for addressing the back 12 water valve issue because to me this seems to be uhm, 13 something that we can do sooner rather than later. Sort of a short-term goal versus long-term solutions. 14 15 And so, I really would like to hear whether the city 16 will take this on as a project funded and then 17 educate the public about how to maintain it so that 18 we don't get a reoccurrence of that backwater. And also, in my district, there needs to be an 19 20 installation of more storm drains. We have blocks, 21 really long blocks where there is one storm drain or 2.2 none. And it was predicated on uhm, on gravity and 23 how the street was actually banked so that the water would run off to somewhere. But since it's been 24

repaved, many iterations over, that that grating does

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 119 no longer exist. And so, we have an ordinate number of amount of water that's pooling in these places. And to have one storm drain on a street is not adequate.

And then my last issue that I'd like addressed is 6 7 uhm, I heard that you know we're doing bioswales and we've done a lot of work with the blue belt on Staten 8 Island. I have a blue belt project that had begun at 9 Snug Harbor and it was, it's been stalled for years. 10 11 I don't even know why you know it seized. But I want 12 to know if this is now going to be reactivated in 13 light of the uhm, the devastation that you know we 14 saw in these communities.

And I just want to say that this storm impacted all communities that we know traditionally flood. But there is not one community in my district that was not impacted by the storm. Thank you.

19 VINCENT SAPIENZA: Council Member, I'll address a 20 couple of them. For the catch basins that you'd like 21 added, I'm happy to meet you out there you know 22 whenever you'd like and we can scope that out. That 23 should be pretty straight forward.

24 Uhm, yeah, the blue belts in Snug Harbor in Mid-25 Island, there are more that we have on the drawing

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 120 2 board we want to move forward with and you know happy 3 to continue to work with the Council to get those 4 moved along. 5 COUNCIL MEMBER ROSE: Is that going to be restarted because it was happening and then it just 6 7 stopped. 8 VINCENT SAPIENZA: Yeah, and I'll get you 9 additional information on the timeline on that and the funding, the funding issues but we'll do that. 10 11 Uhm, the back water valves, backfill preventors, 12 Jainey, you want to take that? 13 JAINEY BAVISHI: Uhm, sure Council Member, I can address uhm, some of your other points. On back 14 15 water valves, so there was a program after Sandy that uhm, funded installation of back water valves in 16 17 certain Sandy effected areas. We want to build on 18 that and expand that. We were actually just notified 19 that we won a federal grant. That the city won a 20 federal grant to study exactly what kinds of 21 buildings we can install back water valves and kind of where back water valves will work best in the 2.2 23 city. So, we're working with DEP on that and we really look forward to working with Council to 24 25 advance a program here.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 121 2 Uhm, as you mentioned, you know I think 3 installation is just one piece but we're also very 4 concerned about maintenance and we want to make sure 5 that uhm, that we tackle that as well. Uhm, I'm sorry, could you maybe move your mic closer because 6 7 I'm not really understanding some of the things 8 you're saying. 9 JAINEY BAVISHI: Can you hear me now? COUNCIL MEMBER ROSE: It's a little better. 10 11 JAINEY BAVISHI: What I said is that we uhm, we 12 were recently notified that we won a federal grant to 13 study back water valves and exactly where they would be most effective and this is really building on the 14 15 program that we uhm, that was offered after Sandy and 16 Sandy effected areas to install back water valves. 17 So, we want to build and expand upon this and uh, our you know, we'd love to work with Council on this as 18 19 The first step is to report back from the well. study that we were just funded to conduct. 20 21 Uhm, and on your points about equity, I couldn't 2.2 agree more. We want to make sure that resilience 23 investments are made in an equitable way. Uhm, just earlier this year, we really storm water resiliency 24 25 maps. So, to your point, you know we think about

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 122 2 usually in a city we think about traditional flooding 3 as flooding in postal areas. But this is a different 4 kind of flooding. It was a rainstorm; it wasn't a 5 surge event. And so, it was inland areas that were also affected and the Storm Water Resiliency plan 6 7 provided maps to show where we might expect uhm, flooding in both coastal and inland areas from storm 8 9 water, from intense precipitation. These maps show where the risk is. Where the 10 11 physical risk is but we also know we need to think 12 about vulnerability more expansively than that, not 13 just based on the physical risk but also other equity 14 factors. 15 Uhm, so you maybe familiar with our heat 16 vulnerability index which takes into account physical 17 indicators of heat risk but also social indicators of 18 heat risk. We want to do the same on storm water and make sure that you know we're taking equity into 19 20 account as we make storm water resiliency investments 21 going forward. 2.2 COUNCIL MEMBER ROSE: When will these maps, the

22 maps you're referring to, when were these maps, the 23 maps you're referring to, when were these maps drawn 24 up prior to the most recent rain events, water events 25 that we've had?

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 123 2 JAINEY BAVISHI: That's right. 3 COUNCIL MEMBER ROSE: If so, I just want to 4 finish the point. If so, it will not reflect the 5 areas that were impacted in these last two events. That you know also need to be addressed. So, are you 6 going to then elicit our input into additional areas 7 8 that should be looked at or are you going to resurvey 9 based on the results of these two storm events? JAINEY BAVISHI: The maps were released in May of 10 11 this year. So, it was before the recent storms. 12 Uhm, you know as previously asked about how the 13 damage that we saw from the most recent event from the remnants of Ida actually overlapped with the maps 14 15 and they overlap pretty well. There was significant 16 overlap between the extreme scenario that we mapped 17 and what we saw during this most recent storm. 18 But we're happy to talk with your office about 19 them if you are interested and we can set up a 20 discussion. 21 COUNCIL MEMBER ROSE: Thank you. I will be 2.2 speaking with both of you after. Thank you. 23 CHAIRPERSON RODRIGUEZ: Thank you Council Member. Last but not least, Council Member Koo. 24 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 124 2 COUNCIL MEMBER KOO: Thank you Chairs and thank 3 you all the Commissioners. The storm caused by supplies and big picture solutions and small picture 4 5 solutions. You guys take care of the big picture solutions and I'll take care of some small problems 6 7 in my district.

8 You know folks in my district which is particularly in the area in the street 152<sup>nd</sup> and Pat 9 Avenue, they have no gas for over two weeks now. 10 I 11 don't know, one of you, I hope you can expedite the 12 gas service for them. Because [INAUDIBLE 2:30:14] 13 and Building Department and they are passing each other right? So, they need [INAUDIBLE 2:30:23] and 14 15 all these things, red tapes. So, I hope you can do 16 it as soon as possible for them.

17 The second problem is uh, in the same area Pat 18 Avenue, the area, there used to be a pond a long, long time ago, right? So, it always gets flooded. 19 And the residents there complained to me uh, that 20 21 because they had no street cleaning there in the whole area around four or five blocks. In Pat Avenue 2.2 23 and 56 Avenue. They need a park there. There is no street cleaning and there is no alternate street 24 25 parking there.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 125 2 So, a lot of neighborhood people use their streets as parking. They park their cars there for 3 weeks sometimes. So, the streets, the storms, the 4 5 catch basins sometimes no street cleaning. Thev didn't get clean. All the system gets clogged, so 6 7 the residents then request they have street cleaning there. Maybe even two times a week, one time a week. 8 And they are alternate street parking. So, there 9 care is probably there all day long and all week long 10 11 sometimes you know. They use their place as a 12 parking space you know. So, that's a problem. 13 The third problem is during the night of the storm, Fire Department and Policeman, they are 14 15 helping people in the houses right but nobody stopped 16 the cars. Driving into the lower lined areas, so 17 they get caught because when they're driving you 18 don't know how deep the water in front of you is, the more area, it's a big pond. When your driving in the 19 heavy rain, you can't see too far. 20 21 So, from now on, please have some checkpoints 2.2 that help fire department - stations say, hey, don't

24 there, even your highways. Lowline points; I see 25 hundreds of cars get stuck there. So, maybe you can

drive. No, don't drive. It jeopardizes all out

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 126 2 stop them from entering the highway. Say, hey, no 3 driving there. No, this is dangerous. 4 And the last point I want to make is uh, since 5 the area, especially in [INAUDIBLE 2:32:51], it's a pond. It was a pond before. They have so much more 6 7 damage. So, some residents suggest to me that why didn't the city buy out these homeowners you know? 8 9 Create a park along there. Use this place as a park or some soccer field so you won't jeopardize a 10 11 property owners life. 12 So, a lot of people are willing to sell their 13 properties. But right now, nobody want's to buy the 14 property there because the history of it. So, the 15 four points, I want you to -The last thing, one more thing, residents 16 17 compliment the Sanitation Department. They said 18 Sanitation did a good job. Picked up all the garbage there. Every day they come to pick up. So, the 19 residents there want me to thank all of you for doing 20 21 a good job. Thank you. 2.2 CHAIRPERSON RODRIGUEZ: Thank you Council Member 23 Koo. I have a summary question, one or two. As we do a transition now to hear the MTA from the 24 25 perspective of the Office of Management and other

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 127 2 agencies with you guys here and others. What are the levels of communication that is going on right now 3 between the city and the MTA? It's the same question 4 5 I am going to be asking them but I don't want to be asking the MTA for them to say okay, we will refer to 6 7 the city. The flooding happened in the station, MTA could say well, you know we just get the water from 8 9 their side.

So, how serious are the conditions at the tenant 10 11 station of seeing more stations being flooded and 12 seeing the pedestrian coming out you know and really 13 in danger. And especially when we have one million New Yorkers that deal with physical challenges. You 14 15 know and how are we preparing to - an area when people are trapped? You know in the station by the 16 17 first one, what is going on with the water coming to 18 the station? What is the city doing? What are you calling it in with the MTA's and they are more led by 19 the state? Are the state adding additional resources 20 to cure those situations? 21

And the second part is how much do you anticipate that in the infrastructure plan will pass in this city? The city will get an amount of dollars to investing in infrastructure?

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 128 2 VINCENT SAPIENZA: I'll handle the first part of 3 the question Mr. Chair. So, uhm, you know our 4 communication with the MTA on the drainage side 5 probably wasn't so good over the last couple of years but when Janno(SP?) came in about three months ago, 6 7 the first thing he did was he reached out to us. He said he wanted to reestablish the task force that we 8 have for drainage and our teams have been meeting 9 since then going over a number of issues. 10 11 So, I'm happy to report that you know, we're now 12 having active discussions. Uhm, in some cases 13 though, you know MTA is correct and you're correct that flooding on local streets, overland flooding is 14 15 getting into subway entrances. Those are things that you know we're working towards seeing how we can 16 17 address. Uhm, in other cases it's things that MTA 18 needs to do to tighten up you know some of the drainage in their spaces but we are now again having 19 active conversations and good conversations with the 20 21 MTA. 2.2 CHAIRPERSON RODRIGUEZ: [INAUDIBLE 2:36:21-23 2:36:38] that must be done you know city and state,

federal funding in order to you know give it hope to

25 the pedestrians.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 129 2 VINCENT SAPIENZA: Yeah. 3 CHAIRPERSON RODRIGUEZ: That they would not be 4 trapped in a station as we have seen those images in the last two storms. 5 VINCENT SAPIENZA: Yeah, I think the MTA could 6 7 discuss that a little bit better but again, I know 8 for some of the street flooding that gets onto 9 sidewalks and down the stairs, looking at elevating some of the you know the entrances or at least the 10 11 first step. But the MTA have discussed a lot of good 12 things with us in the past couple months and I'm sure 13 they will present that. 14 CHAIRPERSON RODRIGUEZ: What is the creation 15 plan? Like, we saw with the whole blackout that happened in the train where the pedestrian was, I 16 17 mean riders, correcting riders were trapped between a 18 station. But I know that the riders don't care about the MTA run by the city or the state, they just want 19 20 to exit. And the MTA has sole responsibility but I 21 assume that you guys you know from the NYPD 2.2 coordinated with the Office of Management, also 23 working. What is the plan? Like, how are we doing today from the exit to the street perspective to be 24 sure that during a flooding, during a blackout that 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 130 2 happened in the train, the riders know where they should exit more than being trying to get a door to 3 walk in the middle of stations? 4 JOHN SCRIVANI: And so, if I understand your 5 question correctly is people are now stuck on the 6 7 train and what should they do, correct? 8 CHAIRPERSON RODRIGUEZ: Yeah, not from the 9 perspective of inside the station but how is the city doing to be sure that there is exit for people to be 10 11 able to walk out? JOHN SCRIVANI: Yeah, so I'll defer to the NYPD 12 13 and the FDNY to answer that question. They really 14 would handle the actual evacuations. So, Chief. 15 RAYMOND SPINELLA: So, basically what would 16 happen, the Conductor should give a message that nobody should be leaving the train. And then what 17 18 happens is, a rescue train comes in from either say 19 from the station side or from the other side and 20 moves up close to this train that's stuck and the 21 people would board the rescue train. That's what 2.2 should happen. 23 CHAIRPERSON RODRIGUEZ: But and hopefully we will

right? This year, we could have the riders go more than five million riders a day. Do you think that

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 131 2 there is a clear sign outside and inside the station about where riders have an exit plan? Not waiting 3 4 for the Conductor to give direction. RAYMOND SPINELLA: Well, we'd also have to work 5 with MTA on that problem. 6 7 CHAIRPERSON RODRIGUEZ: But from your end, what is it that you bring to the table when you are having 8 9 those conversations with the MTA about the exiting plan for riders who are trapped between the stations? 10 11 RAYMOND SPINELLA: For the rider - the message for the riders? Is that what you're asking? Is it 12 13 the message for the rider or? 14 CHAIRPERSON RODRIGUEZ: What are the exits? What 15 are the emergency exits that we have? You know, no 16 one cannot at this moment, let's say no one -31117 doesn't work because people have to provide address. 18 What clear sign does the riders have outside and 19 inside the station or where do they have emergency 20 exits? RAYMOND SPINELLA: I don't believe there are any 21 clear messages. Especially if a train is stuck in a 2.2 23 tunnel. If the train is stuck in a tunnel, passengers should not leave the train until emergency 24 responders remove them. They should not leave the 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 132 2 train. That's why we have rescue trains and that's why we have emergency services units that go in and 3 remove the people safely. 4 CHAIRPERSON RODRIGUEZ: Okay, I hope that this is 5 something that with the new collaboration between the 6 7 MTA, the state and the city, we can address because I feel that a station that is so busy and overcrowded, 8 and of course we need to plan always for the worst. 9 We start with the blackout that happened, that wasn't 10 11 just the flooding but flooding can also happen. 12 Like, people need to know where to exit and sometimes 13 to leave it for the rider to try to figure out, beside the announcement that they can get from the 14 15 Conductor, I think that this is something that I hope 16 that planning forward, we will see the use of 17 technology. Another way of how riders feel that they 18 know exactly from where they can exit. More that relying on the Conductors giving direction to them. 19 [HEARING CUTS OUT 2:41:13-2:55:53] 20 21 So, as we continue this important hearing that 2.2 started with representations of the administration, 23 what we heard how prepared was the city to deal with the flooding and we feel that they could do better. 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 133 2 Now, we're moving to hear from the MTA as 3 everyone knows, is the largest transportation system 4 in the whole nation. It's a corporation that has a value of \$1 trillion. It is so important not only 5 for the residents but also for the visitors and for 6 7 the whole northeast.

As we express to the other members of the panels, 8 9 we know that the men and women in any of the institutions including the MTA wake up, go to sleep 10 11 thinking to do the best to serve the riders but we 12 just want to be sure that today, as we will hear from 13 the MTA on what did they learn from this experience, when we as an equation, it's not a personal question. 14 15 It's about how can we be better prepared to deal with 16 all the natural disasters that we have in the 17 previews. Super Storm know anyone that come in the 18 future.

So, with that, I will now have our Committee
Counsel call on the Administration to testify and
administer the oath.

22 COMMITTEE COUNSEL: Uh, okay, I'll now call from 23 the MTA Senior Vice President of Subways New York 24 City Transit Demetrius Crichlow, Chief Engineer for 25 MTA Construction and Development Matt Best and

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 134 2 Director of MTA Construction and Development Steven 3 Loehr. 4 Please raise your right hand. Do you affirm to tell the truth, the whole truth and nothing but the 5 truth in your testimony before this Committee and to 6 7 respond honestly to Council Member questions. 8 PANEL: I do. 9 COMMITTEE COUNSEL: Thank you. You may begin your testimony when ready. 10 11 DEMETRIUS CRICHLOW: Hello and thank you for 12 having us today. My name is Demetrius Crichlow. I 13 am the Senior Vice President for the Department of 14 Subways at New York City Transit. 15 I'm joined here today by Matt Best, the Chief Engineer for MTA Construction and Development and 16 17 Steven Loehr, Recovery and Resiliency Director within C&D as well. 18 19 Before I begin, I'd like to take a moment to 20 thank Speaker Johnson, whose not here today, Chairs 21 Rodriguez, Gennaro, Brannan for the invitation for 2.2 the continued advocacy on behalf of our system and 23 all New Yorkers. We're here today to talk about Hurricane Ida. 24 How New York City Transit prepared for it, how it 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 135 affected our customers and infrastructure, and what we're doing to make the system resilient again against future storms. Which make no mistake, lay ahead due to the ongoing threat of global warming and climate change.

7 Mass Transit is itself and antidote to climate change. It should be emphasized at the onset that 8 9 our mass transit services allow New Yorkers to combat climate change each and every day by simply foregoing 10 11 a longer congested commute than personal vehicles. Helping us all to lead more carbon efficient lives. 12 13 It also allows the city to have extremely dense pot development. One key to economic success, which also 14 15 allows us to have one of the lowest rates of 16 greenhouse gas emissions per capita in the nation. On September  $1^{st}$ , the subway system was challenged 17 18 by a historic weather emergency that impacted not just mass transit but the entire city and region. 19 The storm dropped the record three and a half inches 20 21 of rain in just one hour. The result in flashfloods 2.2 overwhelmed the city's storm sewer systems, flooding 23 streets and roads, and train tracks. Not just across the city but the region. Naturally, they also 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 136 2 flooded many areas in the subways, which led to a 3 disruption of service on almost all lines. 4 Out of the roughly 350 subway trains that were operating at the peak of the storm, less than 20 got 5 stranded outside of the stations. Transit 6 7 supervisors and managers including many off duty 8 personal who answered the call that evening, 9 evacuated around 1,000 passengers with the assistance of the FDNY and NYPD. Many more of course were 10 11 delayed and/or had to use alternate routes. 12 Fortunately, no one was injured and the 13 overwhelming majority of our customers made it home 14 safely. I want to take a moment to thank our 15 incredible transit frontline employees for the 16 historic, heroic efforts in keeping people safe and 17 making sure the system was safe to restart. In 18 addition to the personal in the field, our employees 19 were corresponding with customers every step of the 20 way by phone, email, social media. Our partners in 21 buses also came through in a major way. We have been planning for this storm for two days 2.2 23 before it hit. Understanding the potential for flash flooding, we pre-deployed pumps, pump trainees and 24 25 engineering maintenance crews across the system and

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 137 2 install flood mitigation barriers at many locations 3 known for historical flooding from heavy rain to 4 mitigate effects. Because of these preparations, New York City transit was able to run sustained bus 5 service throughout the storm and rapidly recover 6 7 subway service.

Within three hours of the end of the storm, New 8 9 York City Transit developed the majority, delivered the majority of subway service in addition to 10 11 continuous full bus service. Within 32 hours, service was restored on all lines except the segment 12 13 of the six in the Bronx. This took a herculean effort. Our crews worked around the clock to pump 14 15 out 75 million gallons of water from the system. All 16 that water has to go somewhere. You've heard Janno 17 Lieber say, the subway system is not a submarine. It 18 cannot be made impervious to water. It's also not a We can't absorb water either. Neither as 19 sponge. 20 you've heard can the sewer system, which was 21 overwhelmed by the intense rainfall.

This isn't a new issue. Weeks before Henri and Ida, upon being named acting Chair and CEO, Janno made dealing with noncoastal flooding of our systems a top priority and reactivated our special task force

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 138 2 on flash flooding with city partners at DEP, OEM and 3 DOT. 4 The taskforce would be determining ways to improve our emergency response coordination. 5 The group will also help identify subway stations most 6 7 vulnerable to flooding and develop joint strategies for flashflood mitigation investments. The focus 8 9 will be on keeping storm waters out of our system through improved drainage along the streets and in 10 11 sewers and were necessary installing water interdiction infrastructure to target locations to 12 13 protect the subway. 14 We recognize that this is an incredibly 15 challenging issue that will only continue to grow in 16 importance and we look forward to collaborating with 17 the city and all of you to deliver a more resilient 18 subway for New Yorkers. But to make it clear, we 19 have been aggressively doing our part to improve our 20 systems resiliency in low laying areas, especially over the last decade. 21 2.2 Since Superstorm Sandy, we invested over \$2.5 23 billion to protect the subway system against flooding from major coastal storms. We've installed flood 24 protection measures at over 3,500 vulnerable subway 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 139 2 openings at 33 stations, stairways, vents, elevator shafts, emergency exits, hatches and manholes. As we 3 rebuilt our under river tubes, after Sandy, we've 4 5 upgraded emergency pumps, elevated critical equipment and installed redundant cabling to ensure key systems 6 7 remain operational in the event of flooding. And we're in the midst of constructing massive flood 8 walls around three of our most critical subway yards 9 as well as Saint George terminal in Staten Island. 10 11 However, it is important to understand that 12 coastal flooding and flash flooding present two very 13 different challenges and require different strategies. Coastal storms like Sandy push massive 14 15 amounts of corrosive salt water over land. These storms are generally slow moving, forecast well in 16 17 advance and impact define coastal areas. Thus, we 18 can target our coastal storm investments to these 19 known vulnerable locations and we can prepare and 20 deploy to these areas in a predictable manner, days 21 in advance of approaching a storm. Flash floods like 2.2 Ida on the other hand are very fast moving, less 23 predictable and can effect any part of the subway system at any time. 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 140 2 Ida had impacts all across the city. Flash flood 3 impacts are typically more localized. And as we've seen in many previous storms, it only takes a single 4 clogged drain or blocked vent at street level to send 5 storm water cascading into the subway system. 6 7 While fresh water from heavy rains is far less

8 devastating to our equipment and infrastructure in 9 salt water, it does have the potential to effect 10 subway service and to pose safety risks for our 11 customers and employees. And we take this concern 12 very seriously.

13 Following major flash flooding in 2007, the MTA worked collaboratively with New York City DOT and 14 15 DEP, invested over \$60 million in flash flood 16 mitigation measures at 25 subway stations that had a 17 history of flooding during heavy rainstorms. These 18 improvements include ceiling vents, installing raised 19 vent gradings, adding a top landing at station 20 stairways, regrading sidewalks and adding check 21 values at subway drains.

22 Prior to Ida's historic rainfall, these efforts 23 have proven to be quite successful. With 24 significantly fewer annual train delays due to heavy 25 rain since 2008. More recently, the subway action

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 141 2 plan included a systemwide expansion of drain repairs 3 and vent cleaning to maximize the efficiency of our 4 pumping system. But while a network of pumps is robust and extensive, 786 pumps and remove 14 million 5 gallons of water on a dry day, they are primarily 6 7 designed to pump away ground water and are not designed to be a substitute for the city's sewer 8 9 system, which they pump directly into. Therefore, they require sufficient sewer capacity 10 11 in order to be effective. And as we experienced during Ida, the city's sewer system is simply not 12 13 equipped to handle such massive volumes of 14 stormwater. We have made billions of dollars of investments 15 16 in our system and the results of the subway action 17 plan and other efforts by New York City Transit, 18 heroic workforce have led to much improved on time 19 performance, but we must continue to adapt to the 20 reality of the impacts of climate change. 21 We are encouraged by the collaborative response 2.2 from many of the city agencies that were testifying 23 before us today. And we stand ready to partner with them and the City Council to increase our systems 24 25 resiliency, to best serve our constituents, your

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 142 constituents and our customers. With that, we're happy to take your questions.

4 CHAIRPERSON RODRIGUEZ: Thank you. I have a few 5 questions and my colleagues also, the Chairs and my 6 colleague Council Member Koo and others who come that 7 will also have questions.

8 When you talk about the taskforce, which is 9 important to have. When will the taskforce schedule 10 to submit their first report?

11 DEMETRIUS CRICHLOW: So, they've had meetings 12 already even as early as yesterday. They were out in 13 the field viewing locations. They have targeted specific locations where the flooding happened during 14 15 Ida. Taking a look at the local landscape to 16 determine what challenges exist there. I look 17 forward to hearing the results when we get that. 18 CHAIRPERSON RODRIGUEZ: To they have a schedule

19 when they will present a full, a full report of their 20 recommendations.

DEMETRIUS CRICHLOW: So, I think it's larger than just, if they were to give me a full report tomorrow, I would not be happy with the results. I think this problem is a lot larger than something that can be solved in the short-term and it requires a real

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 143 2 investment of time and effort into determining what the challenges are. 3 4 CHAIRPERSON RODRIGUEZ: But they don't have - as 5 they were created, there was no giving a timeline and say we have created a yellow taxi report and say, 6 7 that report must be ready in three months, two months. What is the timeframe of that report? 8 9 DEMETRIUS CRICHLOW: I can follow up and get a time for you but I don't have one. 10 11 CHAIRPERSON RODRIGUEZ: Okay, okay and what are 12 the assignment - what is the assignment of that 13 taskforce? What are the specific areas that we want 14 for them to focus on? 15 DEMETRIUS CRICHLOW: So, there is a couple things 16 right. So, first, we determine what location's 17 actually flooding or got rain and then you look at 18 the areas around that area. The street locations, uhm, the sewer areas. Uhm, and you take an 19 assessment as to what the challenges are that cause 20 21 the flooding to enter our system. 2.2 I'll turn it over to Matt Best, who is our 23 Engineering Expert and he can talk a little bit about the specifics. 24 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 144 2 MATT BEST: Yeah, so to - our first meeting was actually on August 6<sup>th</sup>. So, a little before Henri or 3 4 Ida. We recognize this as was Commissioner Sapienza stated when Janno took it over, this was a top 5 priority and it was immediately identified as 6 7 something that we want to address immediately. 8 So, we convened a meeting within days to begin

9 addressing the issues. And we see it as a taskforce that where we're going to jointly approach these 10 11 problems. We obviously are focused on keeping water, storm water out of our subway system. That's our 12 primary goal. Uhm, as Demetrius said, our system is 13 not to be a substitute for the storm sewer. 14 We 15 primarily are concerned about keeping it dry from ground water. But with that, we need to work with 16 17 the city to make sure that their system is designed 18 in a way that keeps the water out.

So, we are working collaboratively with them to identify the locations where systemically there have been issues. This was done back in 2007 where a number of locations were identified across the city, probably the largest concentration was in Queens Boulevard. Along the Queens Boulevard line where it was identified that sewer capacity issues, we're
COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 145 2 going to lead to overtopping of the curbs 3 periodically. 4 So, we worked with the city to design interdictions to protect our vents. To make the 5 stairways be a little bit higher, just to keep the 6 7 storm water out of our system and prevent the flooding from occurring. That's what this taskforce 8 9 will do. Again, we'll continue to look at locations that have been experiencing these conditions 10 11 historically and we'll also, we're sharing all the data that we collected, all the data they're 12 13 collecting. Where the trouble spots are and we're going to focus on those areas and then just continue 14 15 to work out. 16 We have had - in this summer, we have had 17 flooding in locations where we have never had 18 flooding before. So, either it's just random chance 19 or something has changed. So, this group will 20 continue to meet probably in perpetuity so that we 21 can address these things as conditions change. 2.2 CHAIRPERSON RODRIGUEZ: Have you identified the 23 problem that you guys, the institution, the corporation and the system deal with. With so much 24 water getting into the stations and even though, you 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 146 2 know, as we already know that our generation is the one that have to be dealing with a lot of natural 3 disaster. Something that didn't happen probably 50 4 5 years ago, but now we cannot say that this is the last one. There was one, there is no storm, now with 6 7 Ida, that's more of a concern to us. There is a lot of water that moves under the stations. Like, like, 8 when you look at 1571 Train or if you look at knowing 9 this past flooding by the past, the train have been 10 11 getting a lot of water and that water is not 12 necessarily coming from the outside. It's that the 13 water that's more in front of the inside of the 14 station. 15 So, what are the challenges that you see right now when it comes to you know a station being 16 17 flooded, dealing with the flooding of water? 18 DEMETRIUS CRICHLOW: So, I'll say New York City Transit is accustomed to dealing with water. Uhm, as 19 I mentioned on any given day, we pump out around 14 20 million gallons of water a day. So, we're accustomed 21 2.2 to dealing with water. We make sure that we maintain 23 CHAIRPERSON RODRIGUEZ: And where is those water 24 25 coming from? From underground?

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 147 2 DEMETRIUS CRICHLOW: Yes. 3 CHAIRPERSON RODRIGUEZ: Is that what happened? 4 DEMETRIUS CRICHLOW: Yes. 5 CHAIRPERSON RODRIGUEZ: The water is too close to the station, is that what happened? 6 7 DEMETRIUS CRICHLOW: We're at the low level of the city. 8 9 CHAIRPERSON RODRIGUEZ: Lower level. DEMETRIUS CRICHLOW: Right, so, uhm, so we make 10 11 sure that the drains that the water does into are 12 cleared. We uhm, have uh, pumps located throughout 13 the system that continually are maintained. We have a process for which, for triaging specific locations. 14 15 Uhm, we have uhm, maintenance schedules based upon the amount of water that a location will receive. 16 17 Uhm, and again, on any given day, this is handled 18 without any impact to the customer. They don't see 19 this just happened seamlessly if this is just a 20 unique circumstance. 21 CHAIRPERSON RODRIGUEZ: But that's a 2.2 responsibility that we now have to be planning from 23 now on, right? 24 DEMETRIUS CRICHLOW: Hmm, hmm. 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 148 2 CHAIRPERSON RODRIGUEZ: Because that's life. 3 Like, you know, this week, the weather has been very 4 nice right? 5 DEMETRIUS CRICHLOW: Hmm, hmm. CHAIRPERSON RODRIGUEZ: But for me like the 6 7 message that the winter will be tough. Because for me, the weather that we get is like the weather that 8 in a traditional year, it happened like August. Like 9 the 80 degrees usually is like the August weather. 10 11 So, for me, it's about we need to be ready also, 12 let's enjoy this day but let's also take it as a 13 signal that the winter will be tough. It could be that it doesn't happen but you know without having 14 15 that background expertise, that's what the average 16 New Yorker will see. 17 So, so, you know like, that's our challenge and 18 especially for those of you in the leadership 19 position. What are they - when you look at the past flooding, do you think at some point the MTA should 20 21 shutdown the station? Is this something, not 2.2 necessarily, I'm not saying that the state, we failed 23 because we didn't do it. Probably, we can learn from this. Do you anticipate that one of the initiatives 24 25 probably to be put on the table is that when there is

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 149 2 a weather prediction that we're going to be getting this number, so inches of water. That's so 3 important. We have to probably get you to say, you 4 know will we shut it down stations in order to 5 prevent you know for a rider to be in a situation as 6 7 we saw in so many images.

8 DEMETRIUS CRICHLOW: So, you make an excellent 9 point. One of the challenges that we face in every 10 day tackling of incidents or issues is, we move 11 millions of people to work to the city around the 12 infrastructure in order to get to some place.

13 Once we've done that, once we've moved them to that location, we have a commitment, an obligation to 14 15 return them to their homes. This specific issue, this specific incident had we handled it differently 16 17 and determined that we would shut down, we would have 18 stranded those folks who we brought into the city to get to work. The challenge is really in the 19 forecast. Having good information upfront and I 20 21 think it's clear, there is no question that at the 2.2 beginning, there was no effort to shut down the city. 23 There was no call that uhm, that the storm was coming that would require no one to go to work. 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 150 2 So, we have an obligation to bring those folks to work. The question is really about when do you shut 3 4 down and for an event like a Sandy, where we can 5 forecast an event, what we're going to get, when we're going to get and how we're going to get it. 6 We 7 do plan to shut down the system. We have a very, 8 very strict plan on how to do it. Flooding 9 especially as we talked about for this type of flash flooding could happen at any location. So, if you 10 11 have flash flooding in the Bronx, while we take select, we do at certain lines, we will restrict 12 13 service. We will stop service on those lines. We will close off the stations to those lines. We don't 14 15 shut down the entire system because we don't want to 16 impact the entirety of our ridership based upon flash flooding in one location. 17 18 So, it's really based upon where we receive the 19 report and the information that we have at hand. 20 CHAIRPERSON RODRIGUEZ: Okay. Do you think that 21 [INAUDIBLE 3:19:42-3:20:05] 70 percent of the station

23 yesterday that now all of them have from now on they 24 will have camera. With those technology that camera 25 use at the station, do you think that they also can

they have camera before but the announcement

2.2

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 151 2 be used for you to have a better second to look at 3 the situation at the station so that you know that we avoid as much as possible to see some even senior 4 5 citizens, people with physical challenges you know try to come up from the station. You know, like, how 6 7 do you think that we did a whole new plan and now every single station based on what you said 8 9 yesterday, come out in the media yesterday, now they will have camera. It will also help for you to 10 11 monitor the situation when there is a potential 12 raining coming up.

13 DEMETRIUS CRICHLOW: So, the cameras are great 14 for reviewing something after the fact. Unless you 15 have a team of people that are there watching these 16 thousands of cameras uhm, at the very time while this 17 is going on. You really don't have the ability to do that. The cameras don't monitor all locations within 18 the station. So, I think the best information that 19 we could have is based upon the eyes and ears that we 20 have on our property. Our conductors, our train 21 2.2 operators, our engineers, our station agents, our 23 maintenance crews that we strategically placed throughout the system. Uhm, who are there to 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 152 respond. Uhm, so I think that's the best way that we monitor.

4 CHAIRPERSON RODRIGUEZ: Also that you know as you 5 have the taskforce and all of us open to look at 6 innovation, innovating idea that you know of course, 7 if you think about one location to monitor all the 8 camera on location it's different by few divided per 9 borough per area.

I think that you know cameras are important only 10 11 to send the message to the rider that they should feel safe with a crime that is effecting our stations 12 13 but also that, you know, when any situation happen in the station, that they know that there is someone 14 15 looking at that, what's going on. From the black out 16 that happened to you know this situation. So, you 17 know, I hope that again, as you continue having the 18 taskforce working and the rest of the leadership, the MTA to really look at that technology, they have 19 something to monitor. I think that riders want to 20 21 feel that they are being watched when they are in the station. 2.2

DEMETRIUS CRICHLOW: So, your point is dually noted and Matt here is on the taskforce, so he will make sure to take it back to the team.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 153 2 CHAIREPERSON RODRIGUEZ: Yeah, should nobody use 3 after. I think that it should be working 24/7 and I feel that if you talk to the tech community and of 4 5 course you guys work with all of them, most of, some in the private sector, I think that it's important to 6 7 see what are the capacity of those cameras? How much more can they do? 8 My last question before my colleague has 9 questions is about the Emergency Exit Plan. 10 I feel 11 that up to now when we look at the Emergency Exit 12 Plan, we have been happy to send a message that no 13 one should get out of the train unless they get direction from conductors, the conductor. 14 15 When we saw the black out and rider at some 16 point, they are desperate and they get out of the 17 train and they try to get an exit to go out to a new 18 station into the street. It could be again for human error that happened with the black out but it can 19 happen because of the natural disaster. How do you 20 feel is the exit plan, the exit signal in the station 21 2.2 for people to know where they should exit? Besides 23 waiting for direction. And I know, I'm not pretending that in a city that situation that there 24 is powerful energy, electricity. We are expecting 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 154 that people should be walking out knowing that there is a powerful cable there. But my concern is that I don't think that there is right now a plan, an emergency exit plan in our stations.

And I'm thinking about from the inside of you 6 7 guys including the NYPD but also from the outside 8 exit at the street level for people to know this is 9 an exit that if someone is in the station because of flooding, because of a natural disaster or any other 10 11 type of disaster, people should know exactly where to exit. Besides waiting for the conductor to give them 12 13 direction.

14 DEMETRIUS CRICHLOW: So, I certainly understand 15 your concern and each circumstance, each scenario is 16 different and how you handle it is different. Our 17 primary objective is to make sure to keep customers 18 safe and knowing first hand the inherent dangers of 19 having customers on the tracks. Without our 20 quidance, I can't offer any other solution other than to remain on the train where it's safe. 21

A plan that, that, that advocates for customers making their own determination as to what is safe and exiting a train, uhm, will ultimately lead to something that is unsafe. There is no question. And

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 155 2 again, in these scenarios, we have a very, very 3 strict protocol on how to deal with crews. What the 4 emergency response should be, our relationship with the police and FDNY. We have them in our control 5 center. That relationship is seamless. What's not 6 7 seamless is when customers take their own safety into their hand. We have no control of their safety when 8 9 they are taken into their own hands. So, we ask that customers under all 10 11 circumstances wait for our direction before taking 12 their own safety into their own hands, in a system 13 that they just don't know. 14 CHAIRPERSON RODRIGUEZ: Okay, now let's go to the 15 Council Member. Council Member Miller. 16 COUNCIL MEMBER MILLER: Thank you Chair. So, 17 uhm, I appreciate uh, MTA and Vice President, you and 18 your team being here and information that you have 19 given to the Committee. Uhm, I have a couple of 20 questions and uhm, one, I'd be remiss if I really 21 didn't talk about the workforce and its preparedness 2.2 uhm, to be able to evacuate and really service 23 transition, their line of service to, to the public. Uhm, what does that look like? Has it evolved since 24 25 my many years on that side? And what kind of

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 156 2 training can we expect and how has that - how did that transition into uhm, removing folks from trains 3 4 and buses around the city first? DEMETRIUS CRICHLOW: So, uhm, in terms of our 5 folks, there's no question New York City Transit 6 7 employees, MTA employees at large are a fantastic workforce. Uhm, the work that they get done on a 8 9 daily basis when under normal circumstances is just amazing but when circumstances like this arise, they 10 11 have the ability, the desire, the dedication, to go 12 above and beyond under all circumstances to get the 13 job done. 14 But it is our responsibility to train them to do 15 that. So, uhm, it's interesting because right now 16 we're undertaking this huge uhm, infusion of new 17 employees in and one of the things that we talk about 18 in training is the evacuation of customers. What the 19 communication should be. Uhm, we have a, we have a 20 simulation of a train in distress with no lights, a 21 smoke condition within a tunnel. We take our 2.2 employees through that. We let them simulate that in 23 real life.

24 So, we understand the value of training our 25 employees. We're always looking for opportunities to COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 157 do better. Uhm, but your point is well taken. We have to have a training program and we have to invest in our employees so that they can be what they need to be when those circumstances arise.

COUNCIL MEMBER MILLER: That I can appreciate and 6 7 uhm, and so, uhm, part of that is the coordination 8 and the support from where there is management and supporting the agents of the surrounding agencies and 9 allow them to do so because it is very difficult from 10 11 a conductor, motormen or bus operator to kind of transition from driving to now instructing folks to 12 13 get out and whether or not the riding public is willing to receive those instructions. I think that 14 15 part of the problem of what we've seen in this 16 particular instance there is some of those situations 17 there but particular instructions around dealing with 18 the stressed public. If it doesn't occur and I know that it does, that we would kind of step that up. 19 And then secondly, you know I'd like to ask how, 20 how - and this is generally whether it's upstairs and 21

22 down in trains or buses. But there's been a lot of 23 focus on the subway system and I'd like to talk about 24 surface a little bit and how do we, how do you 25 aggregate and compile data based on service

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 158 2 disruption and then ultimately use that data to mitigate and prevent future disruptions in service? 3 4 And I say that, I looked at some of the bus lines that have been disrupted and they are no different 5 from the bus lines that were disrupted 10, 15 years 6 ago when it was part of my task to manage that. And, 7 and, and so, uhm, is there a coordination in DOT and 8 9 DOT and agency coordination that you know, this, we consistently forbid it from going down a particular 10 11 roadway. That roadway is a problem. You know, what are you guys doing? What can we do differently? Can 12 13 you speak to those interagency conversations? 14 DEMETRIUS CRICHLOW: Sure thing. So, uh, to your 15 first point about making sure that our folks on the 16 trains have the ability to be able to communicate 17 with our customers when they are evacuating them. Ιt 18 is certainly an amazing undertaking, particularly when you are under strain. 19 So, this last event, what we did was, when we 20 21 first identified that there were trains stranded, we 2.2 immediately dispatched supervisors and managers to 23 those trains, immediately. We didn't have any idea of how long the outage would be but our immediate 24 position was to send people to those trains. 25 That

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 159 2 facilitates the communication level where a conductor may not necessarily feel comfortable dealing directly 3 with the Fire Department and discharging them. 4 We would love for them, we give them the tools to do 5 that but when you are first doing that, you may not 6 7 necessarily feel the most comfortable doing it. So, we dispatched supervisors and managers to 8 9 assist with that process to help shepherd them through that. Uhm, and then again, you know 10 11 approximately 1,000 customers were evacuated without 12 issues. So, that just speaks to the amazing efforts 13 that were put forward by the Police Department, FDNY, 14 the supervisors and managers, many of which who came 15 from their own homes on their own time to pitch in. 16 Uhm, again, so that effort is just it's hard to 17 find words to just how the level of commitment that 18 these folks have for the job. And second point we 19 spoke about is, is how do we do better with 20 communicating uhm, to our city partners, DEP, what's that coordination like? And uhm, so it does happen 21 within the different districts, the different 2.2 23 boroughs at the depots but I do think that this, that this new group that we're setting up, the taskforce 24 25 will have a better impact on that. I think that when COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 160 you loop in the larger agencies and have them all involved in discussions, you with that information becomes power. Uhm, I'll let Matt comment a little more on that.

MATT BEST: Yeah, as we continue to work, we're 6 taking multipronged approach to this taskforce and 7 8 one of them is specifically on the side of operations 9 and how do we receive the information? How do we deploy the information before an event and then how 10 11 do we communicate during an event? And we have a 12 very tight connection between our operation center 13 and when we activate emergency response along with direct communication with the city and how they 14 15 respond.

I know that DEP will specifically deploy resources to trouble spots. We do the same thing. And as we bring data together and discuss it, we'll find perhaps more efficient ways to do that so that we can multiply our own efforts as we respond to these from an operational standpoint. So, it's really about getting the information to

the right peoples hands at the right times in order for that to be actionable and just to make the results better.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 161 2 DEMETRIUS CRICHLOW: So, Matt commented on an 3 amazing point. That information is critical. So, 4 within New York City Transit, I have the areas that 5 are important to me. What areas I know flood for me. Uhm, but that doesn't mean that that, that DOT has 6 the same concerns. There are areas at street level, 7 they may be completely flooded at street level and we 8 9 just haven't seen it in the subway system yet. That issue still needs to be tackled. So, the taskforce 10 11 is going to take all of that information. Again, 12 that information is a critical piece in having a good 13 plan to go forward. So, taking that information and from different various stakeholders is to me, is 14 15 what's going to make a really concrete plan for 16 response. 17 COUNCIL MEMBER MILLER: So, currently Command Center, they get a call from the bus operator on a 18 19 road and that this street is blocked. Does coordination with agencies at that point there right? 20 21 Whether it's FDNY, Police Department, DEP and others 2.2 that not only are you dispatching perhaps the 23 supervisor dispatcher to the scene but the

24 appropriate agencies are also being notified that -

25 is that currently happening now?

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 162 2 DEMETRIUS CRICHLOW: Yes, yes. So, in an incident, they work hand and hand during an incident. 3 4 I'm sorry, I thought we were talking about how do we fix this going forward? 5 COUNCIL MEMBER MILLER: Yeah, yeah, absolutely 6 7 but at the same time, we are you know in the moment, 8 we're coordinating with other folks and then I was certainly saying, how do we take a look at the 9 information because you know often times is the same 10 11 stations. It's the same routes that are being 12 impacted and so, you know customers over the years 13 are saying like, you know why, why me? Why is it that BNF and folks from Jamaica you know can't get 14 15 back home and/or certain bus routes, why can't we and 16 if it continues to happen, you know there should be 17 enough information that is gathered in order for us, 18 for the future to be able to address it. And then finally, you know we've all seen this 19 fine post that you have here. I want to talk about -20

allow you to speak on how you guys have really dived

into it and what that really means and, and, and if

in fact for me and the greater Jamaica area, what

difference in the future of sustainability will a

fully electric bus depot and bus fleet have on the

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COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 163 environment and mitigating some of these things that we see in the future.

DEMETRIUS CRICHLOW: So, I think New York City Transit, again as we talked about it is a key element to success and the sustainability of our environment. Without mass transportation, New York City or any of the boroughs areas that surround it, just don't survive. We don't thrive.

10 So, uhm, successful transportation uhm, our 11 stakeholders, community leaders, government 12 officials, we all should be committed to 13 sustainability of our environment and New York City 14 Transit, the MTA as a whole is a huge, huge part of 15 that.

So, we're always looking for opportunities to do things brighter, faster, smarter. You know, I'll tell you that Craig as the Acting Interim President for New York City Transit has been a huge proponent of doing things on the bus side first hand that have been ground breaking in terms of where we used to be on our buses and where we're going.

23 So, we're definitely, definitely supportive of 24 that. Do you want to add anything?

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 164 2 STEVEN LOEHR: Not on your bus depot, I was just going to jump in on your data sharing point before. 3 Just talking about getting ahead of this problem a 4 5 little bit more. We have worked with the city in the past looking at historic trouble spots. As Matt 6 7 said, the floods from Ida effected places we've never seen flood before and I think we're really excited 8 about the modeling the city has done and shared with 9 us for future flooding under different sea level rise 10 11 scenarios, under greater storms, so we can expand the 12 stations that we're addressing right? And the 13 locations where we have worked previously to mitigate flash flooding with physical improvements. We've 14 15 seen uh, you know, big improvements in delay reductions from that. So, I think the you know the 16 next oppress is getting ahead of the problem instead 17 18 of just being reactive to historic trouble spots and that's what you know, one of the exciting parts of 19 the taskforce. 20 21 CHAIRPERSON RODRIGUEZ: Thank you. 2.2 STEVEN LOEHR: Sure. 23 CHAIRPERSON RODRIGUEZ: Thank you. Now let's go to Council Member Holden who has a few questions. 24 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 165 2 COUNCIL MEMBER HOLDEN: Thank you. Thank you for 3 your testimony. Uhm, I know it's a huge challenge 4 and uh, when you see storms like Ida but uhm, on the 25 stations that you did work on, flood mitigation 5 and this 33 others that you uhm worked on, did the 6 7 improvements hold? Did it work? Did the mitigation, 8 flood mitigation systems work? Like check valves and 9 so forth? DEMETRIUS CRICHLOW: So, we'd love to tell that 10 11 story. 12 MATT BEST: Yeah, sure, so thank you for your 13 enthusiasm from my response. Uhm, so, a couple points there I guess. So, the 33 that we mentioned 14 15 earlier that are coastal flood stations right, those really were not places where we saw a correlation 16 17 with flooding during Ida and we usually don't during 18 heavy rains. Right at the areas near the coast, usually drain better to the rivers or the harbor and 19 20 it's these inland stations and valleys you know are 21 steeper areas that are the problem in these heavy 2.2 rainstorms. 23 So, for those, and this is places like Hillside Avenue in Jamaica. Upper Manhattan there's some 24

25 spots, 138 Street in the Bronx. Those areas, yeah,

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 166 2 they did relatively well compared to the rest of the 3 city. They're as we mentioned, you know the places 4 that have flooded in previous lesser rainstorms than 5 Ida, so we were you know somewhat expecting that those areas were spots to address. The primary 6 7 objective of those right, in the initial, that 8 initial program from like ten years ago, was 9 minimizing impacts on subway service.

We've seen those deliver in the decades since. 10 Т 11 think the next wave is making sure that there's you 12 know, water on the streets will become water in the 13 stations. So, to the extent that those investments can be helpful in reoccurring spots, that's great but 14 15 if it's you know we have tens of thousands of 16 openings to the subway system. It's completely 17 infeasible to install those at every one of them.

And so, the mission for us working with the city will be keep waters, keep water on the streets, keep water in the sewers. Not down the staircases, not through the vents.

22 COUNCIL MEMBER HOLDEN: So, we're doing better. 23 We're doing better but there's other things involved. 24 You mentioned Queens Boulevard flooding because that 25 hits home. It's next to my district and uh, were

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 167 2 there any - we saw a video of people wading through four feet of water and uhm, water coming up from 3 4 underneath. Obviously those stations, and I know the 5 taskforce will identify the worst stations but does one come in mind that it's a huge problem like Queens 6 7 Boulevard. Because Queens Boulevard, historically that area is flooded and I'm going back 15, 20 years 8 9 when we had storms.

Uh, that area was flooded and so, nothings 10 11 changed. Do we have those chronic locations that we 12 worry about to the point where maybe we should warn 13 people not to go in? With some kind of warning like, we have technology that can warn people you know, you 14 15 can do it in an instant. Warn people on Queens 16 Boulevard, don't go down to the subway and the light, 17 red light comes on.

DEMETRIUS CRICHLOW: So, interestingly we do have 18 locations that we uh, we consider to be more likely 19 to have some type of water condition and we prepare 20 21 for those locations. So, we will send folks to those 2.2 locations. We will have pumps prepared at those 23 locations. We will cover the events at those locations. We take a lot of steps to ensure that 24 those locations don't have any issues. 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 168 2 And to your point, those are the locations that 3 we generally don't have the issues with. But I think that one of Janno's, Janno Lieber's key elements in 4 5 setting up this taskforce is its critical identify systemwide where we stand. Uhm, and again, this was 6 7 before, this was before Ida. We want to make sure that we have the best plan systemwide that addresses 8 9 this.

COUNCIL MEMBER HOLDEN: Okay, just one other 10 11 question. Just a point possibly. Uhm, was there any 12 - was there an effort to clean the tracks prior to 13 the storm? Because we always see - we see debris on the tracks and I have to think that some of that 14 15 might have been the reasons for the excessive flooding. Some of the debris on the tracks. Was 16 17 there an effort to clean?

DEMETRIUS CRICHLOW: So, we have, we have huge efforts for drain cleaning both in our stations and on our tracks. We have some locations that are cleaned monthly, some locations up to three years. Uhm, our because of Sandy, I'm sorry - because of the funding we got for uhm -

STEVEN LOEHR: The Subway Action Plan?

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COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 169 2 DEMETRIUS CRICHLOW: Thank you. The Subway 3 Action Plan, thank you. The Subway Action Plan we 4 got uhm, we spend a ton of effort in making sure that those drains are clean. Again, even when there's no 5 storm coming. 6 7 But remember we had Henri that was not too, not too, that was just before -8 9 COUNCIL MEMBER HOLDEN: I know but my question is about Ida. Was there a specific cleaning effort in 10 11 the days prior? 12 DEMETRIUS CRICHLOW: Yes, yes, yes. 13 COUNCIL MEMBER HOLDEN: Okay, thank you. 14 CHAIRPERSON RODRIGUEZ: Thank you. Thank you. 15 I'd like to thank you for working with us with this many of the issues and you guys, hopefully it's a new 16 17 day with the MTA where it's not so controlled by the 18 governor. Because I think that when Biden left MTA in New York City Transit, it was a big loss. And I 19 20 hope that again, that we get into the new environment 21 where you know, the MTA should be treating, seeing as 2.2 even though most of the members and Chairman is 23 appointment by the governor but you have a level of independence to continue working with these ideas and 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 170 2 be able to work with the City of New York. Especially with the DOT and other agencies. 3 4 Before - so thank you for your participation. 5 Before calling the members of the public, we have a few of them. I am going to say in Spanish and 6 7 recognizing Council Member Levin. [SPEAKING IN SPANISH 3:46:25-3:47:141. 8 With that, thank you to the members of this 9 panel. Now, we are going to be calling members of 10 11 the public and we will have on the clock two minutes. 12 CHAIRPERSON GENNARO: Mr. Chairman, if I may, I 13 just want to point out that uh, one more member of the Environmental Committee, of my Committee has 14 15 joined us uh, Council Member Steve Levin. 16 COMMITTEE COUNSEL: Okay, next we'll hear from 17 members of the public. Uhm, we have Lisa Daglian, 18 Adam Roberts, Hayley Gorenberg and Tyler Taba. And if there are any other members of the public that are 19 here at this time to testify, if you could uh, come 20 21 up to the panel here. 2.2 CHAIRPERSON RODRIGUEZ: If you feel that your 23 testimony is longer than two minutes, just summarize so that we can keep in two. 24

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 171 2 COMMITTEE COUNSEL: Lisa, would you like to go 3 first. 4 LISA DAGLIAN: Hi, good afternoon. I am Lisa Daglian, I am the Executive Director of the Permanent 5 Citizens Advisory Committee to the MTA or PCAC. 6 7 Thank you for this opportunity to testify today. We've heard a lot today about how these last few 8 9 weeks have been a wake up call for all of us. And how more must be done to protect the Transit system 10 11 that is the lifeblood of our region from the ravages

12 of mother nature.

13 The storms Henri, Ida, and whatever comes next, are a clear indication that new solutions must be 14 15 found. The fact that service was restored was 16 quickly as it was is a testament to the hard work of 17 everyone at the MTA. Riders counted on them and they 18 delivered and we thank them for everything they did. We also thank the first responders and city and state 19 20 agencies and utilities that responded quickly and in force to get the region back on the move. 21

But the storms highlighted the fragile ecosystem in which we live. Subways are not submarines but people ride in a whole in the ground and that's the level that water seeks. We heard earlier that the COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 172 MTA pumped 75 million gallons of water out of the subways after Ida. That's staggering. It's a miracle that no one lost their life in the subway system.

It's critical that the MTA, city and state 6 7 accelerate their lessons learned reviews, which we've 8 heard are already underway and we know are underway 9 at the MTA. Take a hard look at third party causes of water infiltration, such as the manhole that 10 11 seemingly caused the 28 street gusher. It's 12 essential that immediate steps be taken to harden 13 infrastructure like street streams, subway pumps and sewers. All of the systems that we need to rely on 14 15 to handle a deluge like we saw most recently during Ida but that we expect with increasing regularity. 16 17 The MTA and the city must also look to their 18 capital programs in the context of resiliency and 19 reprioritize their projects as necessary. Chair 20 Rodriguez, earlier you talked about the 207 Street 21 and Coney Island yards and these are certainly 2.2 included and we are looking at their prioritizations. 23 The taskforce that we heard more earlier about

24 uhm, we must also look at the joint priority projects 25 and how to move them forward expeditiously. This

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 173 2 will all take money. That's why it's so critical 3 that funding come to the MTA and federal state and local sources, including the city's commitment to the 4 MTA's 2024 Capital Program and highlights more than 5 ever the importance of central business district 6 7 tolling, otherwise known as congestion pricing. We will be speaking in support of that at upcoming 8 9 public meetings and urge you to support it and do so as well. Thank you. 10 11 HAYLEY GORENBERG: Thank you. 12 COMMITTEE COUNSEL: Could you say your name 13 please. 14 HAYLEY GORENBERG: Sure, my name is Hayley 15 Gorenberg and I am the Legal Director of New York 16 Lawyers for the Public Interest for a community 17 driven civil rights organization with an 18 environmental justice program. 19 We must use this moment to address inadequate 20 infrastructure and transform New York City's 21 environmental justice community, so that they are 2.2 resilient and thriving as part of the citywide 23 initiative to better prepare for more powerful storms like Hurricane Ida and other challenges brought by 24 25 global warming.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 174 COMMITTEE ON ENVIRONMENTAL PROTECTION 2 Much of what we need to do is work right under 3 our feet on the city's sewer system. When storms 4 slam into the city and dump rain and run off the fitness of our sewers determines our wellbeing. Are 5 they flooding and collapsing? If so, our 6 7 infrastructure failings contaminate homes and waterways, destroy possessions and lives and even 8 9 potentially drown fellow New Yorkers. Especially in poor communities and communities of color. 10 11 Since the Thanksgiving 2019 sewage backup disaster that wrecked homes and lives for hundreds of 12 New Yorkers in South Ozone Park's Queens, NYLPI has 13 convened and been working with a half dozen excellent 14 15 New York law firms working Pro bono as part of NYLPI's South Ozone Park Sewer Legal Assistance 16 17 Project or SLAP, to pursue justice for families 18 flooded out by sewage. 19 When Ida hit the city, the storm hit our team and 20 community partners with a sense of dread full 21 familiarity. Ida's rain synergized with decrepit and inadequate sewer infrastructure to cause disastrous 2.2 23 flood damage and even death. The record dropped by the previous Queens sewer disasters caused by 24 infrastructure malfunction for which the city 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 175 2 appropriately took responsibility provides a case and 3 point. With our without storms, the state of the city's 4 sewers has become life-threatening. These are 5 examples from one of the city's numerous 6 7 environmental justice communities fighting marginalization on any number of fronts. Including 8 9 horrendous impacts of dilapidated infrastructure, especially when it's stressed by more and more 10 11 frequent and violent storms.

Again and again, climate disasters will hit these communities first and worst but if our government addresses their needs, the city will be uplifted and everyone will be safer.

16 Okay, I'm going to skip to some points about what 17 we learned from the city's claims process, which is 18 also part of the agency infrastructure that the 19 city's lack and that families need to be resilient in 20 the face of disaster and that's why we created our 21 project. Because I think that these problems that Queens residents experienced provide a roadmap to 2.2 23 improved service.

24 So, quickly some examples. The city helped with 25 cleanup in some instances but it didn't ensure that

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 176 2 sewage damage belongings were cataloged or 3 photographed or otherwise recorded before they were 4 hauled away. So, when residents sought to get compensated for the damage, they lacked what would 5 have been simple records to support their claims. 6 7 Replacement boilers installed by the city lead to complaints of substandard installation and lack of 8 9 necessary insulating barriers and residents had trouble procuring what they were told should have 10 11 been simple tracking documentation from agencies 12 showing exactly what was installed. 13 Overall, proof's of loss were poorly understood 14 and inappropriate downward pressure on losses 15 resulted. Here is just one example, people with low 16 limits on their homeowners insurance -17 CHAIRPERSON RODRIGUEZ: Sorry, if you don't mind, 18 just summarize. 19 HAYLEY GOORENBERG: I am just doing these Yes. 20 two last bullet points. Uhm, people with low limits 21 on their homeowners insurance, would receive 2.2 insurance appraisals essentially showing they maxed 23 their policies at a few thousand dollars with no specification of their actual loss beyond the maximum 24 25 of the policy.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 177 2 And then, these low appraisals would be 3 misinterpreted as showing their actual loss and 4 creating a ceiling inappropriately limiting their 5 compensation. CHAIRPERSON RODRIGUEZ: Okay. Let's take this 6 7 testimony reading and we leave it as it is and we 8 move to the next one. Thank you. You know we have 9 to accommodate others. COMMITTEE COUNSEL: Adam Roberts? Tyler Taba? 10 11 TYLER TABA: It's on? 12 CHAIRPERSON RODRIGUEZ: Yes. 13 TYLER TABA: Okay, my name is Tyler Taba, I'm a 14 fellow at the Waterfront Alliance. The leader in 15 waterfront revitalization, climate resilience and advocacy for the New York, New Jersey Harbor Region. 16 17 The Waterfront Alliance is committed to 18 sustainability and to mitigating the effects of 19 climate change across the regions hundreds of miles 20 of waterfront. We've spearheaded the Rise to 21 Resilience Coalition of 100 plus groups advocating for policy related to climate resilience and we run 2.2 23 the Waterfront Edge Design Guidelines Program for promoting innovation and climate design. Recent 24 storms particularly Ida demonstrated the importance 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 178 of resilience across the boroughs and we urge the next Mayor to expedite the fourth coming climate adaptation roadmap.

While large scale government lead infrastructure 5 upgrades are in dire need, the city also requires a 6 7 network of smaller scale solutions at the building 8 and neighborhood level. New York City has options 9 for small scale interventions to retrofit buildings and properties for higher resiliency. At an 10 11 individual level, critical, mechanical and electrical systems can be moved to higher floors and potential 12 13 penetration points for water like utility hookups can 14 be sealed. Investments in green infrastructure at 15 the building scale can reduce the burden on stormwater systems. 16

17 There is substantial value in a citywide climate 18 resilience retrofit incentive program, to facilitate 19 meaningful change at scale. The city and states 20 climate responses must include incentives, grants and 21 loans that support resilience retrofitting by 2.2 property owners and this incentive program has 23 precedent with the recent enacting of Local Law 97. Addressing environmental injustices and passed 24 25 disinvestments should be central to any programs

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 179 funding structure to ensure protection in the most vulnerable communities.

4 We also call for the Mayor to immediately commit 5 resources to the New York City Department of Environmental Protection and the Office of Emergency 6 7 Management to ensure not one more New Yorker is 8 caught and killed by flood waters in their own home. 9 Prioritize funding for a comprehensive citywide initiative to expand a drain capacity throughout the 10 11 city to prevent flooding starting with building out stormwater sewers or retention tanks in vulnerable 12 13 areas with limited drainage systems. More immediate actions on implementing city infrastructure for 14 15 greener and more sustainable solutions such as blue 16 belt systems are essential.

17 And finally, we call on the Mayor to create a 18 public information campaign for homeowners on flood 19 insurance enrollment and to expand communication to 20 New Yorkers about flood insurance through advertising 21 on the subway, bus and ferry routes. As the 2.2 insurance rates are likely to go up once FEMA updates 23 their currently out-of-date flood maps. Thank you. CHAIRPERSON RODRIGUEZ: Thank you. 24 25 COMMITTEE COUNSEL: Okay, uh, Chris Bellovary.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE COMMITTEE ON ENVIRONMENTAL PROTECTION 180
CHRIS BELLOVARY: Hello, my name is Chris
Bellovary, I'm a Staff Attorney with Riverkeeper.
Thank you for holding this meeting and thank you for
inviting us.

6 Riverkeeper is a member supportive watchdog 7 organization dedicated to the protection and 8 restoration of the Hudson River from source to sea 9 working with and advocating for communities 10 throughout the region and safeguarding the drinking 11 water supply for over ten million residents of New 12 York City in the Hudson River Valley.

13 New York City and communities throughout the watersheds in the Hudson River and the New York City 14 15 water supply are grappling with how climate change is 16 reshaping the flood risks in multiple ways. I mean, 17 basically the standard 100 year storm is the storm 18 that has a one percent chance of happening on any given year. Well, what we have defined as the 100 19 20 year storm clearly occurs more than one percent of 21 the time and what actually is a 100 year storm is 2.2 much more intense than what we have designed for. 23 Similarly, our flood plains have the same issue.

24 Uhm, and as long as humans continue making climate 25 change worse, these are going to remain moving

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 181 2 targets, which makes this a difficult thing to plan 3 for. 4 Riverkeeper encourages the city and MTA to keep some following principles in mind. Uhm, first one is 5 developing holistic solutions based on all possible 6 7 forms of flood risk. And the reason for that is 8 there is multiple forms of flooding that the city 9 experiences. Obviously the uhm, the overwhelming draining system is the one that's most present at the 10 11 moment but there is also ground water flooding as MTA was talking about. River flooding, title flooding 12 13 and flooding from coastal storm surges. They all have different qualities and solutions that are only 14 15 designed to address one of those can be 16 counterproductive for other forms of flooding. And so, that's why we are advocating that all forms of 17 18 flooding are considered at the same time. 19 This is a simple example. Draining systems are

20 designed to get water out of a city if they don't have backflow preventors. Obviously, it can allow 21 2.2 storm surge in other water just to be brought into 23 the city as well.

Uhm, other principles that I wanted to touch on 24 was that there is going to be certainly some sort of 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 182 2 thought about how you cannot upgrade an entire city's storm water system all at the same time. And so, 3 there should be some thought about how essentially 4 5 where it might be preferrable to have plans shutdown - for shutdowns and how to sequence those also 6 considering the disadvantaged communities in the 7 process. Obviously, we don't want to exacerbate 8 9 that. CHAIRPERSON RODRIGUEZ: Okay. 10 11 CHRIS BELLOVARY: So, uhm, uh, basically one of 12 the other things is basically designing uhm, flood 13 protection designs that are multilayered, flexible components, with adaptability in resilience. Because 14 15 the climate is changing in ways that we don't - there 16 are ways that we know and ways that we don't know. 17 Uhm and another thought was that the systems need 18 to be designed for the city to, not just survive but thrive. And so, we need to be looking at all the 19 side benefits, side problems and co-benefits of the 20 21 various plans. 2.2 CHAIRPERSON RODRIGUEZ: Thank you. 23 CHRIS BELLOVARY: Thank you very much. COMMITTEE COUNSEL: Okay uhm, Carlos Castell 24 25 Croke.

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 183 CARLOS CASTELL CROKE: Yes, uh, good afternoon. 2 3 My name is Carlos Castell Croke and I am the 4 Associate for New York City Programs at the New York League of Conservation Voters. I want to thank all 5 the Chairs who are here today and the Council 6 7 Members.

Uhm, when Hurricane Ida hit our city a few weeks 8 9 ago, our subway system was devastated. Almost every line was affected stranding New Yorkers and 10 11 disrupting commuters. A deadly storm such as this 12 should no longer come at a surprise. We've been 13 saying for years now that climate change is here. We no longer have the luxury of time. If we want to 14 15 prevent costly damages, keep our critical transit 16 infrastructure running during disaster and continue 17 to fight climate change in the process, we must 18 invest heavily in resilient infrastructure now. 19 This will involve cooperation and coordination between the MTA, NYC DOT and NYC DEP. First and 20 21 foremost, we must implement green infrastructure 2.2 across New York including by reclaiming a large 23 portion of our roads as public pedestrian spaces. Green infrastructure will not only help to absorb 24

rainwater and mitigate flooding but also increase

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 184 2 cooling and improve local air quality as well as beautify our neighborhoods. Furthermore, greening 3 4 and pedestrianizing our roads will cutdown on congestion in cars, which are the number one 5 contributor to greenhouse gas emissions from the 6 7 transportation sector.

8 Initiatives such as these will be particularly 9 important for environmental justice communities that often already lack green space and have high levels 10 11 of air pollution. We must also upgrade our other 12 forms of public transportation such as our buses, to ensure that our network is robust and reliable. In 13 order to fund these improvements, we need significant 14 15 investments in the MTA's capital plan through federal 16 programs like the Build Back Better Act and from 17 local sources such as congestion pricing.

18 We must also create a comprehensive five borough 19 resiliency plan, so we can efficiently implement 20 these programs. Not just to protect our coast but 21 also to preserve our inland neighborhoods and communities. Public transit is one of our strongest 2.2 23 weapons in the fight against climate change. It provides an affordable and sustainable way to get 24 around while also giving New Yorkers an alternative 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 185 2 to automobiles. However, one must ensure that our 3 public transit networks and our streets are built to 4 withstand the increased flooding in storms that climate change will continue to bring. 5 It will be short sided and irresponsible to allow 6 7 the very thing public transit seeks to upend for it's 8 very operation. Thank you. 9 CHAIRPERSON RODRIGUEZ: Thank you. Thank you. I'd like to thank everyone. The Chairman of -10 11 CHAIRPERSON GENNARO: Thank you Mr. Chairman. Ι 12 just wanted to commend this panel. I've in my 13 previous years at the Council, I've really enjoyed 14 working with all of your organizations and I feel 15 that the - this last panel has been among the most 16 enlightening that we've had all day. And I 17 appreciate your continued advocacy. I hope the 18 Mayor's Office, I don't think anyone here is here 19 from the Office of Legislative Affairs. But I can 20 only hope that they're watching this over the stream, 21 so that they get the benefit of your good views. And uhm, please feel free to reach out to me anytime I 2.2 23 have your good testimony here and I look forward to working with all of you as I uhm, now that I am back 24 as the Chair of the Committee on Environmental 25

COMMITTEE ON TRANSPORTATION JOINTLY WITH THE COMMITTEE ON RESILIENCY AND WATERFRONTS AND THE 1 COMMITTEE ON ENVIRONMENTAL PROTECTION 186 2 Protection. I appreciate you all being here very 3 much. CHAIRPERSON RODRIGUEZ: Thank you Chair. So, I'd 4 like to thank the two other Committee's and the 5 Chairman for being part of this joint hearing with 6 7 Committee of Transportation while they advocate as we will finish in this hearing, if any one from the 8 9 audience want to follow and I know the panel that we had this afternoon led by the city and state and 10 11 that's why I had to close on this one to move to the 12 other one, even though it's not a City Council 13 hearing. But it's a panel going on about the future 14 of housing but also the future of transportation 15 organized by the city and the state. So, I'm sorry for rushing a little bit but it's 16 17 about being able to move to the new responsibility 18 to. And with that, thank you to everyone and this 19 hearing is adjourned. [GAVEL] 20

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## CERTIFICATE

World Wide Dictation certifies that the foregoing transcript is a true and accurate record of the proceedings. We further certify that there is no relation to any of the parties to this action by blood or marriage, and that there is interest in the outcome of this matter.



Date \_\_\_\_\_September 24, 2021