



**Metropolitan Transportation Authority**

# Safety Committee Meeting

## September 2016

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### Committee Members

- T. Prendergast, Chair
- A. Albert
- N. Brown
- F. Ferrer
- C. Moerdler
- M. Pally
- J. Samuelson
- V. Tessitore
- J. Vitiello
- P. Ward
- N. Zuckerman

**Safety Committee Meeting**  
**2 Broadway - 20th Floor, Board Room**  
**New York, NY 10004**  
**Wednesday, 9/28/2016**  
**8:30 - 9:30 AM ET**

**1. Public Comments**

**2. Approval of Minutes - July 27, 2016**

*Safety Committee Minutes - Page 3*

**3. 2016 Safety Committee Work Plan**

*Safety Committee Work Plan - Page 7*

**4. Safety Metrics**

**July**

*MNR Metrics - Page 10*

*LIRR Metrics - Page 11*

*NYCT Metrics - Page 12*

*MTACC Metrics - Page 13*

*B & T Metrics - Page 14*

**June**

*MNR Metrics - Page 15*

*LIRR Metrics - Page 16*

*NYCT Metrics - Page 17*

*MTACC Metrics - Page 18*

*B & T Metrics - Page 19*

**5. Safety Promotion: Safety Focus Efforts**

*MTA Safety Committee Safety Focus Day - Page 20*

**6. Safety Risk Management: Rail Infrastructure Improvement Grants**

*Infrastructure Improvements Presentation - Page 39*

Date of next meeting: December 14, 2016 @ 8:30 am

**Metropolitan Transportation Authority  
Minutes of  
Safety Committee Meeting  
2 Broadway, 20<sup>th</sup> Floor  
New York, NY 10004**

**Wednesday, July 27, 2016  
8:30 AM**

**The following members were present:**

**Hon. Thomas Prendergast, Chair  
Hon. Mitchell Pally  
Hon. John Molloy  
Hon. Ira Greenberg  
Hon. Susan Metzger  
Hon. Norman Brown  
Hon. Andrew Albert  
Hon. Neal Zuckerman  
Hon. James E. Vitiello  
Hon. Charles Moerdler**

The following safety officers were present:

David Mayer - MTAHQ  
Cheryl Kennedy - NYCT  
Loretta Ebbighausen - LIRR  
Pashko Camaj – B&T  
Peter Kohner – MTA CC  
Justin Vonashek – MNR  
Anne Kirsch – MTAHQ  
Stephen Vidal – MTA Bus

Ronnie Hakim, President, New York City Transit (“NYCT”), Joseph J. Giulietti, President, Metro-North Railroad (“MNR”), Patrick Nowakowski, President, Long Island Rail Road (“LIRR”), Donald Spero, President, Bridges and Tunnels (“B&T”), Michael Horodniceanu, President, MTA Capital Construction (“MTA-CC”), and Darryl Irick, President, MTA Bus also attended the meeting.

**Chairman Prendergast called the meeting to order.**

**PUBLIC SPEAKERS**

There was one (1) public speaker, Murray Bodin. Please refer to the video recording of the meeting produced by the MTA and maintained in MTA records for the content of speaker’s remarks.

## **APPROVAL OF MINUTES**

Upon motion duly made and seconded, the minutes of the April 2016 Safety Committee were approved.

## **2016 COMMITTEE WORK PLAN**

Chairman Prendergast asked Mr. Mayer if there were any changes to the work plan. Mr. Mayer stated there were no changes.

## **REPORT OF FIRE SAFETY INSPECTIONS**

Mr. Mayer introduced Anne Kirsch to report on fire safety inspections. Please refer to the video recording of the meeting produced by the MTA and maintained in MTA records for the content of speaker's remarks.

Mr. Albert asked what MTA can do to help mitigate fire hazards under elevated structures if safety inspections are conducted by city or county agencies. Ms. Kirsch responded that each of the agencies inspect property adjacencies to identify safety risks and report concerns to the proper county or city agency. Mr. Albert then asked how often inspections take place. Ms. Kirsch answered inspections are based on hazard and risk with higher risk locations inspected twice a year and annually for all other locations.

Mr. Vitiello then asked if there was still debris under the Park Avenue Viaduct. Mr. Mayer responded that there is still storage under the bridge however, the risk has been significantly mitigated.

## **SAFETY PROMOTION: BUS SAFETY SYMPOSIUM**

Mr. Mayer then reported on the Bus Safety Symposium. Please refer to the video recording of the meeting produced by the MTA and maintained in MTA records for the content of speaker's remarks.

Mr. Albert asked if there is data to show fault after bus and pedestrian/bicyclist fatalities. Mr. Mayer responded that from a safety prospective only risk mitigation is relevant.

Mr. Pally asked if research shows at what point bus accidents tend to occur. Mr. Mayer answered that such a detailed analysis was not possible by the National Highway Safety Administration. Ms. Kennedy added that according to NYCT analysis most bus accidents occur before the bus enters the intersection. Mr. Vidal also added bus stop placement plays a very important role in bus accident mitigation.

Mr. Brown asked if MTA is satisfied with how data analysis is broken out compared to national data analysis. Mr. Vidal answered data is collected from each accident and incorporated into training initiatives and trends are analyzed.

Mr. Moerdler suggested that MTA collaborate with NYPD in ticketing delivery trucks that park in bus stops forcing bus operators to maneuver around them.

## **GRADE CROSSINGS**

Mr. Mayer then reported on the Grade Crossings. Please refer to the video recording of the meeting produced by the MTA and maintained in MTA records for the content of speaker's remarks.

Mr. Albert asked if federal regulations were geared more towards freight train grade crossings than urban/commuter grade crossings. Mr. Mayer answered that the intent of the federal regulation is that they apply universally.

Mr. Pally asked that MTA reach out to the Federal Government to suggest modifying the Manual on Uniform Traffic Control Devices (MUTCD) to include the unique conditions involved in urban grade crossings that is not currently covered by MUTCD. Chairman Prendergast agreed that the hazards New York rails face is very different than those of high speed rails. He also stated that MTA is not bound by MUTCD standards and regulations. Mr. Mayer went on to say that the Federal Government is aware of the challenges MTA faces and anticipates making changes.

## **SAFETY METRICS**

Mr. Mayer stated that the Metrics included in the Safety Committee book were the same metrics reported in the Agency Committee books. Mr. Mayer then asked each agency safety lead to expound on noteworthy metrics. Please refer to the video recording of the meeting produced by the MTA and maintained in MTA records for the content of speaker's remarks.

Mr. Albert asked the status of the vacuum train. Ms. Hakim responded that the trains are ordered and expected to be delivered in late 2017 to early 2018.

Mr. Pally asked if the number of customer slip, trips and falls have gone down since the installation of countdown clocks. Ms. Kennedy answered that a correlation has not been recognized but she will look into it further.

Mr. Moerdler asked that the treads on subway and rail stairs be inspected before winter and repaired where necessary. Ms. Kennedy responded that they will look into it.

Mr. Brown asked how far NYCT has gone with fixed flagging. Ms. Kennedy responded that flagging has been added at 284 stations and approximately 4,600 placards where flags will be added at a later time.

Mr. Vitiello asked if Buses tracks the number of bus accidents involving Citibike and if not would it be possible. He also asked if Buses could ascertain whether the rider was helmeted. Mr. Vidal stated that Buses only began to track Citibike accidents recently. He also stated it would be possible to include helmet information and would look into it. Mr. Vitiello also suggested collaboration between Buses and Citibike on educating riders on bike safety.

Mr. Moerdler asked if there is data that shows the effects that eliminating or constricting lanes has on bus safety. Mr. Vidal agreed that the constraining of lanes does put pressure on bus operators but does not necessarily make it unsafe.

Mr. Pally asked if bus operators are made aware of lane closures prior to beginning their route. Mr. Vidal answered that through a road operations group, information is communicated to

operators prior to beginning their route and communicated through the bus radio system when advance notice isn't possible.

Mr. Moerdler asked whether LIRR had data that shows the number of accidents related to luggage in the aisles of trains. Ms. Ebbighausen answered that the majority of LIRR accidents happen in stations and platforms but luggage is a contributing factor to the accidents on the train.

Mr. Moerdler asked if there was any data to demonstrate the impact the electronic toll collection at the Henry Hudson Bridge has had on employee and customer injuries. Mr. Camaj stated that customer collisions have gone down by 40% since implementation.

Mr. Pally asked if most customer accidents happen entering the toll plaza and if so what could be done to help mitigate those accidents. Mr. Camaj stated clear and visible stripping of lanes is important to avoid collisions entering the toll plaza but that the majority of accidents occur on the roadway.

Mr. Moerdler asked if automotive Lane Departure Warning Systems could not be implemented by B & T to help mitigate accidents in the toll plaza. Mr. Camaj answered that the behavior of motorists is the cause of most collisions.

### **ADJOURNMENT**

Upon motion duly made and seconded, the Board voted to adjourn the meeting at 10:18 am.

# 2016 Safety Committee Work Plan

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## I. RECURRING AGENDA ITEMS

<u>Topic</u>	<u>Responsibility</u>
Public Comments	Committee Chair & Members
Approval of Minutes	Committee Chair & Members
Committee Work Plan	Committee Chair & Members

## II. SPECIFIC AGENDA ITEMS

	<u>Responsibility</u>
<b><u>January 2016</u></b>	
Safety Policy – Committee Charter Proposed Revision	Committee Chair & Members
SMS Framework & Safety Metrics	MTA Chief Safety Officer
<b><u>February 2016</u></b>	
Effectiveness of Training	Agency Safety Leads
Safety Metrics	Agency Safety Leads
<b><u>April 2016</u></b>	
Safety Policy – Specific item TBD	MTA Chief Safety Officer
Safety Risk Management	Safety Staff
<b><u>July 2016</u></b>	
Safety Assurance – Review of Safety Performance	Agency Safety Leads
Safety Promotion – Specific item TBD	Safety Staff
<b><u>September 2016</u></b>	
Safety Promotion – Specific item TBD	MTA Chief Safety Officer
Safety Risk Management – Specific item TBD	Safety Staff
<b><u>December 2016</u></b>	
Safety Policy – Evaluation of Safety Committee Charter	Committee Chair & Members
Safety Assurance – Review of Safety Performance	Agency Safety Leads
<b><u>January 2017</u></b>	
Safety Policy – Approval of 2016 Work Plan	Committee Chair & Members
Safety Risk Management – Specific item TBD	Safety Staff

## **Detailed Summary**

### **I. RECURRING AGENDA ITEMS**

#### **Approval of Minutes**

The Committee Chair will request a motion to approve the minutes of the prior meeting of the Safety Committee.

#### **Committee Work Plan**

The Work Plan will list, by meeting, the topics scheduled for review. The Committee will be advised if any changes have been made to the plan.

### **II. SPECIFIC AGENDA ITEMS**

Note: The SMS framework has four pillars: Safety Policy, Safety Risk Management, Safety Assurance, and Safety Promotion. To facilitate general oversight of SMS activities at the MTA and its agencies, each agenda items will generally pertain to one of these pillars.

#### **January 2016**

##### **Safety Policy – Committee Charter Proposed Revision**

The MTA Chief Safety Officer will discuss revising the Safety Committee charter to include specific reference to SMS and invite the Committee to vote to recommend that the Governance Committee make such a change.

##### **SMS Framework & Safety Metrics**

The MTA Chief Safety Officer will review SMS principles and the importance of leading indicators.

#### **February 2016**

##### **Effectiveness of Training**

Follow-up discussion regarding the measures used to assess the effectiveness of training at the agencies.

##### **Safety Metrics**

A review of updated leading and lagging indicators consistent with the development and implementation of SMS at the MTA.

#### **April 2016**

##### **Safety Policy**

The committee will receive a briefing and/or an action item pertaining to a specific aspect of the Safety Policy SMS pillar.

##### **Safety Risk Management**

The committee will receive a briefing and discussion will be invited pertaining to a specific aspect of the Safety Risk Management SMS pillar.

## **July 2016**

### **Safety Assurance – Review of Safety Performance**

The committee will receive a briefing and discussion will be invited pertaining to the safety performance of the agencies. This relates to the Safety Assurance SMS pillar, and provides an opportunity for deeper exploration of “lagging” indicators of safety.

### **Safety Promotion**

The committee will receive a briefing and/or an action item pertaining to a specific aspect of the Safety Promotion SMS pillar.

## **September 2016**

### **Safety Promotion**

The committee will receive a briefing and/or an action item pertaining to a specific aspect of the Safety Promotion SMS pillar.

### **Safety Risk Management**

The committee will receive a briefing and discussion will be invited pertaining to a specific aspect of the Safety Risk Management SMS pillar.

## **December 2016**

### **Safety Policy – Evaluation of Safety Committee Charter**

The Safety Committee Charter specifies that the Committee Chair & Members will review the charter annually. This relates to the Safety Policy SMS pillar.

### **Safety Assurance – Review of Safety Performance**

The committee will receive a briefing and discussion will be invited pertaining to the safety performance of the agencies. This relates to the Safety Assurance SMS pillar, and provides an opportunity for deeper exploration of “lagging” indicators of safety.

## **January 2017**

### **Safety Policy – Approval of 2016 Work Plan**

The committee will be presented with and discuss the 2016 work plan and asked to approve the same. As the work plan governs the activities of the committee, this pertains to the Safety Policy SMS pillar.

### **Safety Risk Management**

The committee will receive a briefing and discussion will be invited pertaining to a specific aspect of the Safety Risk Management SMS pillar.

# July 2016 Safety Report

Statistical results for the 12-Month period are shown below.

Performance			
Performance Indicator	12-Month Average		
	August 2013 - July 2014	August 2014 - July 2015	August 2015 - July 2016
FRA Reportable Customer Accident Rate per Million Customers	2.15	1.76	1.23
FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours	2.64	2.26	2.64
Grade Crossing Incidents <sup>1</sup>	4	1	3
Mainline FRA Reportable Train Derailments	1	1	1
Mainline FRA Reportable Train Collisions	0	0	0

<sup>1</sup> Per FRA - Any impact between railroad on-track equipment and a highway user at a highway-rail grade crossing. The term "highway user" includes automobiles, buses, trucks, motorcycles, bicycles, farm vehicles, pedestrians, and all other modes of surface transportation motorized and un-motorized.

Leading Indicators				
Employee: Focus on C3RS	2015		2016	
	July	Year end	July	Year to Date
Total Reports Received	0	574	83	421
Total Reports Reviewed by PRT	0	261	77	393
Total Reports that Meet C3RS Program Criteria	0	212	67	346
Total Corrective Actions being Developed	0	3	0	2
Total Corrective Actions Implemented	0	3	0	0
Customer and Community: Focus on Grade Crossings	July	Year to Date	July	Year to Date
Broken Gates	3	23	3	34
MTA Police Details	114	1,060	112	944
Summons	71	532	20	250
Warnings	16	166	9	94
Community Education and Outreach	NA	NA	7,621	11,654
		Completed	Total	% Complete
Cameras on Rolling Stock	Scheduled to Begin in August		TBD	TBD

**Definitions:**

**Confidential Close Call Reporting System (C3RS)** - Labor, Management, and Federal Railroad Administration (FRA) partnership designed to enhance safety through analysis of confidential reports of employee close calls. The Peer Review Team (PRT) meets to review reports and recommend corrective actions.

**Broken Gates** - The number of events at grade crossing locations where a vehicle broke a crossing gate.

**MTA Police Detail** - The number of details specifically for the purpose of monitoring behavior at Grade Crossings.

**Summons for Grade Crossing Violation and other Infractions**- The number of violations issued to a motorist for going around a crossing gate or due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

**Warnings** - The number of warnings issued to motorists due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

**Community Education and Outreach** - The number of participants who attended a TRACKS, Operation LifeSaver, or Railroad Safety Awareness Event.

**Cameras on Rolling Stock** - Number of complete inward/outward camera installations on rolling stock.

# JULY

## Safety Report

Statistical results for the 12-Month period are shown below.

<b>Performance</b>			
<b>Performance Indicator</b>	<b>12-Month Average</b>		
	August 2013 - July 2014	August 2014 - July 2015	August 2015 - July 2016
FRA Reportable Customer Accident Rate per Million Customers	5.86	4.45	3.34
FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours	3.54	3.59	3.18
Grade Crossing Incidents <sup>1</sup>	6	10	8
Mainline FRA Reportable Train Derailments	0	0	1
Mainline FRA Reportable Train Collisions	2	3	2

<sup>1</sup> Per FRA - Any impact between railroad on-track equipment and a highway user at a highway-rail grade crossing. The term "highway user" includes automobiles, buses, trucks, motorcycles, bicycles, farm vehicles, pedestrians, and all other modes of surface transportation motorized and un-motorized.

<b>Leading Indicators</b>				
<b>Employee: Focus on C3RS</b>	<b>2015</b>		<b>2016</b>	
	July	Year to Date	July	Year to Date
Total Reports Received	8	18	28	133
Total Reports Reviewed by PRT	5	15	20	117
Total Reports that Meet C3RS Program Criteria	5	10	28	125
Total Corrective Actions being Developed	0	0	1	8
Total Corrective Actions Implemented	0	0	1	5
<b>Customer and Community: Focus on Grade Crossings</b>	July	Year to Date	July	Year to Date
Broken Gates	10	76	14	73
MTA Police Details	78	593	30	297
Summons	123	723	103	967
Warnings	70	323	69	538
Arrests	0	0	1	5
Community Education and Outreach	5,296	54,903	5,097	67,342
		Completed	Total	% Complete
Cameras on Rolling Stock	Scheduled to Begin in December		TBD	TBD

### **Definitions:**

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**Warnings** - The number of warnings issued to motorists due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

**Community Education and Outreach** - The number of participants who attended a TRACKS, Operation LifeSaver, or Railroad Safety Awareness Event.

**Cameras on Rolling Stock** - Number of complete inward/outward camera installations on rolling stock.

# Monthly Operations Report

Statistical results for the 12-Month period are shown below.

Safety Report				
Performance Indicators		12-Month Average		
		Aug 2013 - Jul 2014	Aug 2014 - Jul 2015	Aug 2015 - Jul 2016
<b>Subways</b>				
Subway Customer Accidents per Million Customers <sup>1</sup>		2.60	2.64	2.50
Subway Collisions <sup>2,3</sup>		1	0	0
Subway Derailments <sup>2,3</sup>		2	1	2
Subway Fires <sup>2</sup>		967	1,033	947
<b>Buses</b>				
Bus Collisions Per Million Miles	Regional	49.29	51.33	55.49
Bus Collision Injuries Per Million Miles	Regional	6.77	6.42	6.58
Bus Customer Accidents Per Million Customers	Regional	1.05	1.10	1.21
Total NYCT and MTA Bus Lost Time Accidents per 100 Employees		3.63	3.72	3.98

<sup>1</sup> 12-Month Average data from July through June.

<sup>2</sup> 12-month figures shown are totals rather than averages.

<sup>3</sup> Data from September through August.

Leading Indicators				
Subways	August	YTD	Goal	YTD as % of Goal
<b>Roadway Worker Protection</b>				
Joint Track Safety Audits -- Actual Count	30	253	336	75.3%
Joint Track Safety Audits -- Compliance Rate	99.0%	98.9%	100.0%	98.9%
<b>Mainline Collision/Derailment Prevention</b>				
Continuous Welded Rail Initiative (# of Track Feet)	5,773	39,209	61,178	64.1%
<b>Station -- Emergency Communication</b>				
Help Point Installations	16	83	130	63.8%
Buses	August	YTD	Goal	YTD as % of Goal
<b>Collision Prevention</b>				
Audible Pedestrian Warning System Pilot <sup>4</sup>	N/A	N/A	40	N/A
Collision Avoidance System Pilot <sup>5</sup>	N/A	N/A	20	N/A
Vision Zero Employee Training	512	3,950	6,000	65.8%

<sup>4</sup> Proof of concept on 4 buses continues to function as designed – currently developing a design for the visual portion of this initiative. Requirements document and statement of work 100% complete. Vendor negotiations complete. Installation scheduled to start 2nd week of Oct.

<sup>5</sup> Requirements document and statement of work are 100% complete for rollout of the pilot. Responses from the Invitation For Bids have been received and are being evaluated. Particular attention is being given to the performance of the technology under low and dim lighting conditions and an evaluation is underway to determine the efficacy of the system under such conditions. The committee will be updated next cycle on the result of the evaluation. Our target is to install 20 buses by end of year.

# SAFETY OPERATIONS REPORT

## For East Side Access - July 2016

Performance		
Injury Rate	2015	2016 YTD
Lost Time Injury Rate per 200,000 worker hours	<b>0.88</b>	<b>0.53</b>
Recordable Injury Rate	<b>2.36</b>	<b>2.13</b>

Performance Indicator - CM	Jul	YTD	Goal	YTD as % of Goal
Daily Safety Walkthrough	213	1442	2510	57%
JHAT Audit	11	88	240	37%
Quarterly Safety Audit	1	10	40	25%
Bi Annual ACE Evaluation	0	0	20	0%
Safety Monthly Meeting	20	133	120	111%
Leading Indicators - Contractor	Jul	YTD	Goal	YTD as % of Goal
Training	20	146	183	80%
Toolbox Talks	31	398	480	83%
Site Inspections	224	1681	2510	67%
SWP Review/Audit	38	263	-	
New Employee Orientation	179	1432	-	
Emergency Preparedness	2	35	20	175%

## For Second Avenue Subway - July 2016

Performance		
Injury Rate	2015	2016 YTD
Lost Time Injury Rate per 200,000 worker hours	<b>0.98</b>	<b>0.39</b>
Recordable Injury Rate	<b>2.14</b>	<b>1.82</b>

Performance Indicator - CM	Jul	YTD	Goal	YTD as % of Goal
Daily Safety Walkthrough	285	1707	1255	136%
JHAT Audit	10	75	120	63%
Quarterly Safety Audit	15	25	20	125%
Bi Annual ACE Evaluation	2	5	10	50%
Safety Monthly Meeting	5	45	60	75%
Leading Indicators - Contractor	Jul	YTD	Goal	YTD as % of Goal
Training	36	402	158	254%
Toolbox Talks	34	227	240	95%
Site Inspections	423	2734	1255	218%
SWP Review/Audit	35	204	-	
New Employee Orientation	243	1209	-	
Emergency Preparedness	0	5	10	50%

## Safety Report

Statistical results for the 12-Month period are shown below.

Performance Indicator			
Performance Indicator	12-Month Average		
	August 2014 - July 2015	August 2015 - July 2016	% Change
Customer Collisions Rate for Bridge Customers per Million Vehicles	5.74	6.80	18.5%
Customer Injury Collisions Rate for Bridge Customers per Million Vehicles	0.91	1.04	14.3%
Employee Accident Reports	249	266	6.8%
Employee Lost Time Injuries Rate per 200,000 worker hours	5.0	6.3	26.0%
Construction Injuries per 200,000 worker hours	3.47	1.75	-49.6%

Leading Indicators				
Roadway Safety	2015		2016	
	July	Year End	July	Year to Date
Workforce Development (# of Participants)	137	1687	34	463
Fleet Preventative Maintenance Insp.	76	1186	89	678
Safety Taskforce Inspections	0	12	1	5
Construction Safety	July	Year End	July	Year to Date
Construction Safety Inspections	381	3419	340	2387
Fire Safety	July	Year End	July	Year to Date
Fire Code Audits Completed	1	13	1	6
FDNY Liaison Visits	0	23	1	13

### Definitions:

**Workforce Development** provides for focused safety and skills training to all operations, maintenance and staff personnel. Classes feature OSHA 10 and 30 Classes, operations mandatory safety and skills instruction and retraining and specialty training (TIMS, CDL, FDNY instruction, Wrecker Driver Instruction and Roadway Safety Rules).

**Fleet Preventative Maintenance Inspections** are conducted at each location to improve the customer and worker safety environment. Inspections identify potential hazardous roadway or facility conditions and prescribe corrective actions to eliminate hazards.

**Safety Taskforce Inspections** are conducted by the joint Labor and Management Committee at each facility throughout the year on a rotating basis. The inspections consist of reviewing past accident and incident experiences/reports and facility safety reports. The Taskforce meets with location management and union representatives and makes a complete tour of the facility. The Taskforce is comprised of representatives of the Safety and Operations groups and has representation from each of the represented unions.

**Construction Safety Inspections** are conducted by an independent safety monitor to ensure that the necessary components for a safe construction are present. Inspections include review of safety organization, job hazard analysis, safe work plans for specific high risk activities, personal protective equipment, fire protection, industrial hygiene, and training.

**Fire Code Audits** are required by the NYS Uniform Fire Prevention Code. They are conducted by the Safety and Health Department at each building and facility throughout the Agency. They feature a review of fire prevention activities and the condition of fire fighting and suppression equipment.

**FDNY Liaison Visits** are conducted on a regular basis (typically twice a year) whereby local fire companies visit and tour the facilities to become familiar with the structures and buildings and the fire equipment provided. This facilitates the development of strategies for fighting fires and responding to emergencies. Additionally, special drills and training exercises are conducted to drill on communications and special rescue operations should they be required.

# June 2016 Safety Report

Statistical results for the 12-Month period are shown below.

Performance			
Performance Indicator	12-Month Average		
	July 2013 -June 2014	July 2014 -June 2015	July 2015 - June 2016
FRA Reportable Customer Accident Rate per Million Customers	2.12	1.75	1.21
FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours	2.62	2.27	2.59
Grade Crossing Incidents <sup>1</sup>	4	1	3
Mainline FRA Reportable Train Derailments	2	1	1
Mainline FRA Reportable Train Collisions	0	0	0

<sup>1</sup> Per FRA - Any impact between railroad on-track equipment and a highway user at a highway-rail grade crossing. The term "highway user" includes automobiles, buses, trucks, motorcycles, bicycles, farm vehicles, pedestrians, and all other modes of surface transportation motorized and un-motorized.

Leading Indicators				
Employee: Focus on C3RS	2015		2016	
	June	Year end	June	Year to Date
Total Reports Received	0	574	74	338
Total Reports Reviewed by PRT	0	261	124	316
Total Reports that Meet C3RS Program Criteria	0	212	50	279
Total Corrective Actions being Developed	0	3	0	2
Total Corrective Actions Implemented	0	3	0	0
Customer and Community: Focus on Grade Crossings	June	Year to Date	June	Year to Date
Broken Gates	1	20	6	31
MTA Police Details	143	946	134	832
Summons	74	461	20	230
Warnings	32	150	20	85
Community Education and Outreach	NA	NA	2,033	4,033
		Completed	Total	% Complete
Cameras on Rolling Stock	Scheduled to Begin in August		TBD	TBD

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<b>Performance</b>			
<b>Performance Indicator</b>	<b>12-Month Average</b>		
	July 2013 - June 2014	July 2014 - June 2015	July 2015 - June 2016
FRA Reportable Customer Accident Rate per Million Customers	5.80	4.55	3.47
FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours	3.56	3.55	3.27
Grade Crossing Incidents <sup>1</sup>	6	9	8
Mainline FRA Reportable Train Derailments	0	0	0
Mainline FRA Reportable Train Collisions	2	2	2

<sup>1</sup> Per FRA - Any impact between railroad on-track equipment and a highway user at a highway-rail grade crossing. The term "highway user" includes automobiles, buses, trucks, motorcycles, bicycles, farm vehicles, pedestrians, and all other modes of surface transportation motorized and un-motorized.

<b>Leading Indicators</b>				
<b>Employee: Focus on C3RS</b>	<b>2015</b>		<b>2016</b>	
	June	Year to Date	June	Year to Date
Total Reports Received	0	10	42	105
Total Reports Reviewed by PRT	5	10	40	97
Total Reports that Meet C3RS Program Criteria	5	5	40	97
Total Corrective Actions being Developed	0	0	1	7
Total Corrective Actions Implemented	0	0	4	4
<b>Customer and Community: Focus on Grade Crossings</b>	June	Year to Date	June	Year to Date
Broken Gates	11	66	9	59
MTA Police Details	98	515	32	267
Summons	97	600	124	864
Warnings	62	253	65	469
Arrests	0	0	1	4
Community Education and Outreach	12,773	49,607	12,221	62,245
		Completed	Total	% Complete
Cameras on Rolling Stock	Scheduled to Begin in December		TBD	TBD

**Definitions:**

**Confidential Close Call Reporting System (C3RS)** - Labor, Management, and Federal Railroad Administration (FRA) partnership designed to enhance safety through analysis of confidential reports of employee close calls. The Peer Review Team (PRT) meets to review reports and recommend corrective actions.

**Broken Gates** - The number of events at grade crossing locations where a vehicle broke a crossing gate.

**MTA Police Detail** - The number of details specifically for the purpose of monitoring behavior at Grade Crossings.

**Summons for Grade Crossing Violation and other Infractions**- The number of violations issued to a motorist for going around a crossing gate or due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

**Warnings** - The number of warnings issued to motorists due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

**Community Education and Outreach** - The number of participants who attended a TRACKS, Operation LifeSaver, or Railroad Safety Awareness Event.

**Cameras on Rolling Stock** - Number of complete inward/outward camera installations on rolling stock.

# Monthly Operations Report

Statistical results for the 12-Month period are shown below.

Safety Report				
Performance Indicators		12-Month Average		
		Jul 2013 - Jun 2014	Jul 2014 - Jun 2015	Jul 2015 - Jun 2016
<b>Subways</b>				
Subway Customer Accidents per Million Customers <sup>1</sup>		2.62	2.65	2.51
Subway Collisions <sup>2,3</sup>		1	0	0
Subway Derailments <sup>2,3</sup>		1	2	2
Subway Fires <sup>2</sup>		984	1,018	941
<b>Buses</b>				
Bus Collisions Per Million Miles	Regional	49.64	50.74	55.05
Bus Collision Injuries Per Million Miles	Regional	7.10	6.47	6.37
Bus Customer Accidents Per Million Customers	Regional	1.04	1.07	1.22
Total NYCT and MTA Bus Lost Time Accidents per 100 Employees		3.67	3.69	3.95

<sup>1</sup> 12-Month Average data from June through May.

<sup>2</sup> 12-month figures shown are totals rather than averages.

<sup>3</sup> Data from August through July.

Leading Indicators					
Subways		July	YTD	Goal	YTD as % of Goal
<b>Roadway Worker Protection</b>					
Joint Track Safety Audits -- Actual Count		32	223	336	66.4%
Joint Track Safety Audits -- Compliance Rate		99.1%	98.9%	100.0%	98.9%
<b>Mainline Collision/Derailment Prevention</b>					
Continuous Welded Rail Initiative (# of Track Feet) <sup>4</sup>		2,491	33,436	61,178	54.7%
<b>Station -- Emergency Communication</b>					
Help Point Installations		12	67	130	51.5%
Buses		July	YTD	Goal	YTD as % of Goal
<b>Collision Prevention</b>					
Audible Pedestrian Warning System Pilot <sup>5</sup>		N/A	N/A	40	N/A
Collision Avoidance System Pilot <sup>6</sup>		N/A	N/A	20	N/A
Vision Zero Employee Training		603	3,544	6,000	59.1%

<sup>4</sup> Data through July 25th.

<sup>5</sup> Proof of concept on 4 buses continues to function as designed – currently developing a design for the visual portion of this initiative. Requirements document and statement of work 100% complete. Vendor negotiations complete. Installation scheduled to start 2nd week of Oct.

<sup>6</sup> Requirements document and statement of work are 100% complete for rollout of the pilot. Responses from the Invitation For Bids have been received and are being evaluated. Particular attention is being given to the performance of the technology under low and dim lighting conditions and an evaluation is underway to determine the efficacy of the system under such conditions. The committee will be updated next cycle on the result of the evaluation. Our target is to install 20 buses by end of year.

# SAFETY OPERATIONS REPORT

## For East Side Access - June 2016

Performance		
Injury Rate	2015	2016 YTD
Lost Time Injury Rate per 200,000 worker hours	<b>0.88</b>	<b>0.62</b>
Recordable Injury Rate	<b>2.36</b>	<b>2.16</b>

Performance Indicator - CM	Jun	YTD	Goal	YTD as % of Goal
Daily Safety Walkthrough	152	1206	2510	48%
JHAT Audit	8	75	240	31%
Quarterly Safety Audit	2	9	40	23%
Bi Annual ACE Evaluation	0	0	20	0%
Safety Monthly Meeting	16	113	120	94%
Leading Indicators - Contractor	Jun	YTD	Goal	YTD as % of Goal
Training	12	124	183	68%
Toolbox Talks	52	361	480	75%
Site Inspections	214	1391	2510	55%
SWP Review/Audit	33	217	-	
New Employee Orientation	177	1242	-	
Emergency Preparedness	9	33	20	165%

## For Second Avenue Subway - June 2016

Performance		
Injury Rate	2015	2016 YTD
Lost Time Injury Rate per 200,000 worker hours	<b>0.98</b>	<b>0.47</b>
Recordable Injury Rate	<b>2.14</b>	<b>2.19</b>

Performance Indicator - CM	Jun	YTD	Goal	YTD as % of Goal
Daily Safety Walkthrough	257	1422	1255	113%
JHAT Audit	9	65	120	54%
Quarterly Safety Audit	1	10	20	50%
Bi Annual ACE Evaluation	0	3	10	30%
Safety Monthly Meeting	8	40	60	67%
Leading Indicators - Contractor	Jun	YTD	Goal	YTD as % of Goal
Training	74	366	158	232%
Toolbox Talks	42	193	240	80%
Site Inspections	368	2311	1255	184%
SWP Review/Audit	42	169	-	
New Employee Orientation	139	966	-	
Emergency Preparedness	1	5	10	50%

Statistical results for the 12-Month period are shown below.

Performance Indicator			
Performance Indicator	12-Month Average		
	July 2014 - June 2015	July 2015 - June 2016	% Change
Customer Collisions Rate for Bridge Customers per Million Vehicles	5.67	6.65	17.3%
Customer Injury Collisions Rate for Bridge Customers per Million Vehicles	0.88	1.03	17.0%
Employee Accident Reports	269	236	-12.3%
Employee Lost Time Injuries Rate per 200,000 worker hours	4.8	5.8	20.8%
Construction Injuries per 200,000 worker hours	3.72	1.78	-52.2%

Leading Indicators				
Roadway Safety	2015		2016	
	June	Year End	June	Year to Date
Workforce Development (# of Participants)	238	1687	65	429
Fleet Preventative Maintenance Insp.	106	1186	84	589
Safety Taskforce Inspections	5	12	1	4
Construction Safety	June	Year End	June	Year to Date
Construction Safety Inspections	296	3419	391	2047
Fire Safety	June	Year End	June	Year to Date
Fire Code Audits Completed	1	13	1	5
FDNY Liaison Visits	2	23	4	12

### Definitions:

**Workforce Development** provides for focused safety and skills training to all operations, maintenance and staff personnel. Classes feature OSHA 10 and 30 Classes, operations mandatory safety and skills instruction and retraining and specialty training (TIMS, CDL, FDNY instruction, Wrecker Driver Instruction and Roadway Safety Rules).

**Fleet Preventative Maintenance Inspections** are conducted at each location to improve the customer and worker safety environment. Inspections identify potential hazardous roadway or facility conditions and prescribe corrective actions to eliminate hazards.

**Safety Taskforce Inspections** are conducted by the joint Labor and Management Committee at each facility throughout the year on a rotating basis. The inspections consist of reviewing past accident and incident experiences/reports and facility safety reports. The Taskforce meets with location management and union representatives and makes a complete tour of the facility. The Taskforce is comprised of representatives of the Safety and Operations groups and has representation from each of the represented unions.

**Construction Safety Inspections** are conducted by an independent safety monitor to ensure that the necessary components for a safe construction are present. Inspections include review of safety organization, job hazard analysis, safe work plans for specific high risk activities, personal protective equipment, fire protection, industrial hygiene, and training.

**Fire Code Audits** are required by the NYS Uniform Fire Prevention Code. They are conducted by the Safety and Health Department at each building and facility throughout the Agency. They feature a review of fire prevention activities and the condition of fire fighting and suppression equipment.

**FDNY Liaison Visits** are conducted on a regular basis (typically twice a year) whereby local fire companies visit and tour the facilities to become familiar with the structures and buildings and the fire equipment provided. This facilitates the development of strategies for fighting fires and responding to emergencies. Additionally, special drills and training exercises are conducted to drill on communications and special rescue operations should they be required.

# MTA Safety Committee

Safety Focus Efforts  
September 28, 2016



# Bridges & Tunnels

Safety Focus Day



# Background

- First Safety Stand-Down held December 2013
- Safety Focus efforts include:
  - Quarterly Labor Management Safety Meetings
  - Tool Box discussions (maintenance employees)
  - Roll-Calls (uniformed officers on plaza duties)
  - Safety Task Force (comprehensive audit incl. labor and senior management)
- Joint effort by Safety & Health, Operations, and Engineering & Construction to continue to focus on safety at all our facilities



# Topics

- Review performance
- Accident and incident investigations
- Monitor trends & develop strategies
  - Slips, trips, falls
  - Customer collisions and injuries
- Capital project risk assessments
- Review and update policies
- Seasonal safety reminders

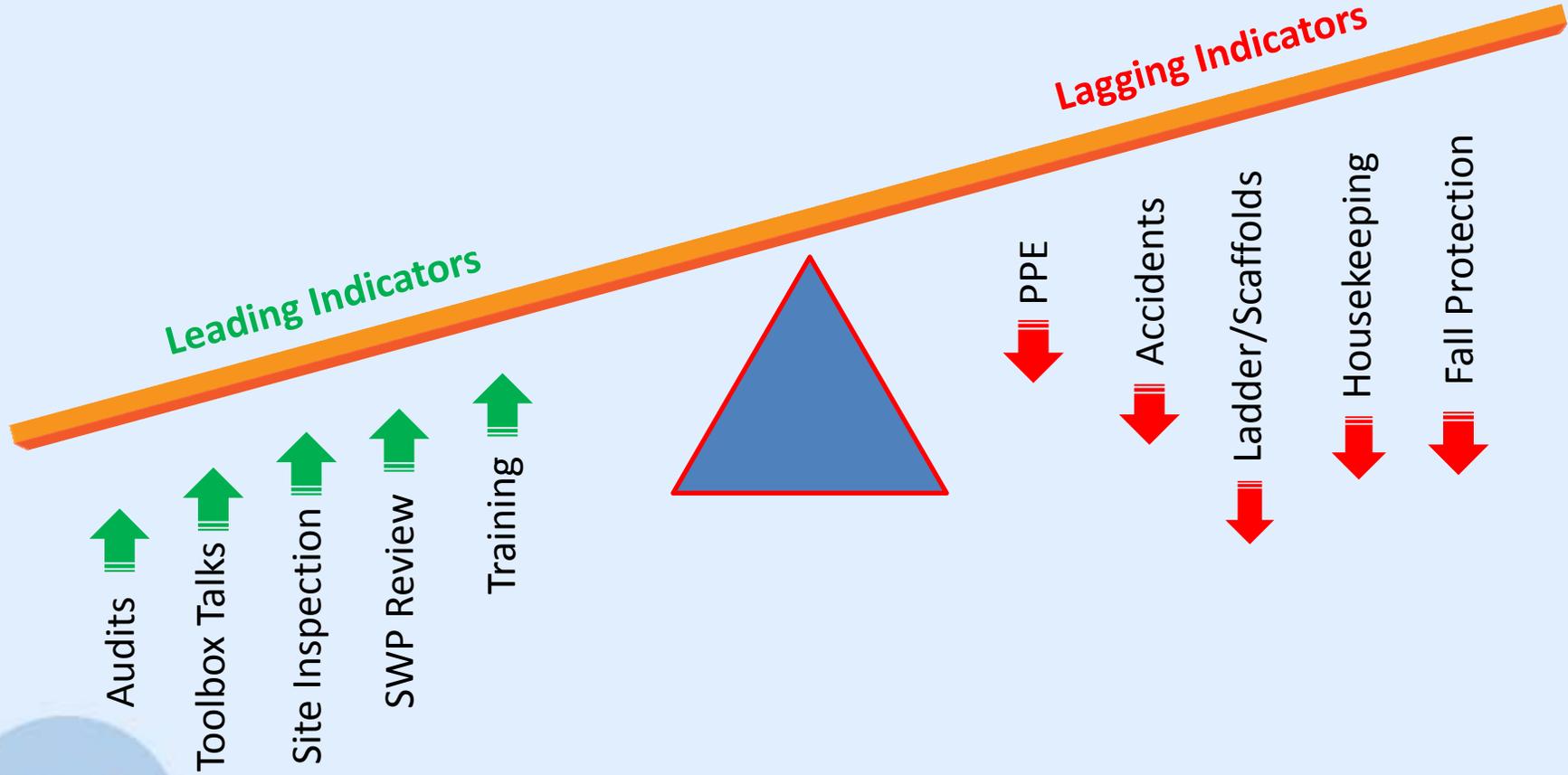


# Capital Construction

## Safety Focus Efforts



# Contractors - CCM - MTACC Safety Strategy



# Efforts

- Monthly Safety Strategy Meetings
- Safety Compliance Audits
  - Contractor
  - Construction Management
- JHAT (Joint Hazard Assessment Team)
- Evacuation Drills
- FDNY familiarization
- Hazard Analysis Review and Strategy
- Injury Trend analysis and review
- Daily Tool Box Talks and Take 5's
- Culminates with Annual Safety Report



# Long Island Rail Road

Safety FOCUS Day



# Background

- First Safety Stand-Down held December 2013
- Currently conducting Safety FOCUS Days
- Held quarterly
- Average attendance over 4,000 employees
- Facilitator package and material developed by Corporate Safety Department and customized by departments



# Topics

- Safety Performance
- Regulatory and policy changes
- Red alerts and incident reviews
- C3RS update
- Seasonal safety reminders
- Strategies to address current injury trends
  - Ergonomics
  - Slips, trips, falls
  - Struck by/on
  - Material handling



# FOCUS

An employee's ability to FOCUS can mean the difference between a safe, productive workday and an employee injury.

There are several factors that can affect an employee's ability to FOCUS. These include personal well-being, health, outside influences, stress, and sleep patterns. The FOCUS Campaign outlines some of the major causes that can lead to a lack of FOCUS, while providing some tips to eliminate distractions and keep you alert and safe.



**Fatigue**  
Outside Influences  
**Communication**  
*Uncertainty*  
**Situational Awareness**

**THINK | ACT**  
**SAFETY | SAFELY**  
Working towards an accident-free workplace.

Safety One Call Number  
347-404-SAFE (7233)

**FOCUS**  
MTA Long Island Rail Road



# Metro-North Railroad

Safety Focus Day



# Background

- First Safety Focus Day (previously called Safety Stand-Down) held December 2013
- Held Quarterly
- Average attendance is over 4,000 employees
- Facilitator package and materials developed by the Office of System Safety in conjunction with other departments



# Topics

- Use of Electronic Devices
- Job Safety Briefing
- Confidential Close Call Reporting System (C3RS)
- Healthy 4U!
- Safety Excellence Awards
- New Safety Challenge Policy
- Injury Trends



# NYCT & MTA Bus

## Safety Focus Efforts





# Safety Focus Efforts

## Subways

- Quarterly Safety Briefings
  - Maintenance of Way (MOW)
  - Car Equipment (DCE)
- Number of Employees
  - MOW: 6,350
  - DCE: 2,200
- Facilitator package and material Developed by Operations Training and customized by divisions





# Safety Focus Efforts

## Subways (continued)

- Monthly Safety critiques
  - Service Delivery
  - Station Environment
- Number of Employees
  - Station Environment: 3,800
  - Service Delivery: 2,800
- Topic information identified by DOS Office of Operational Support and Safety





# Safety Focus Efforts

## Buses

- Employee focus on safety
  - Monthly
- Number of Employees
  - Transportation: 11,800
  - Maintenance: 3,500
- Facilitator package and material developed by Safety and Environmental Managers and Assistant General Manager of the Depots



# Topics

- Injury trends and mitigation efforts
- Near miss/close call incident
- Job task hazard assessment
- Observation/audit findings (job procedures & PPE)
- Departmental safety bulletins, advisories, policies
- Trends specifically related to operational procedures
- Safety Times newsletter topics



# MTA Safety Committee

September 28, 2016



# Rail Infrastructure Improvement Grants





# Federal Railroad Administration 2016 Infrastructure Improvement Grant

- MTA applied for and was awarded three grants totaling >\$5 million in federal money (total costs >\$11.3 million)
- Projects include:
  - Installation of CCTV at 44 grade crossings
  - Highway traffic signal pre-emption at seven grade crossings on Metro-North's Harlem and Port Jervis Lines
  - Roadway upgrades, including traffic signal pre-emption and CCTV at 2 LIRR & 1 MNR grade crossings (additional 3 CCTV installations)



# Vehicle-Activated CCTV

- Equip 34 crossings on Metro-North territory with radar-activated CCTV cameras and digital video recorders
- Equip 10 crossings on Long Island Rail Road territory with loop-activated CCTV cameras and digital video recorders
- Benefits:
  - Allows observation of real-time activity at crossings
  - Provides information on crossing function and driver behavior to design targeted safety modifications
  - Aids incident investigations



# Traffic Signal Pre-emption

- Train approach activates the traffic signal at the intersection and allows traffic to clear the crossing before activation of the flashing lights and gates
- Seven grade crossings on Metro-North's Harlem and Port Jervis Lines where the grade crossing is close to a parallel, heavily traveled highway
- Additional roadway improvements will be implemented to facilitate safe highway traffic flow

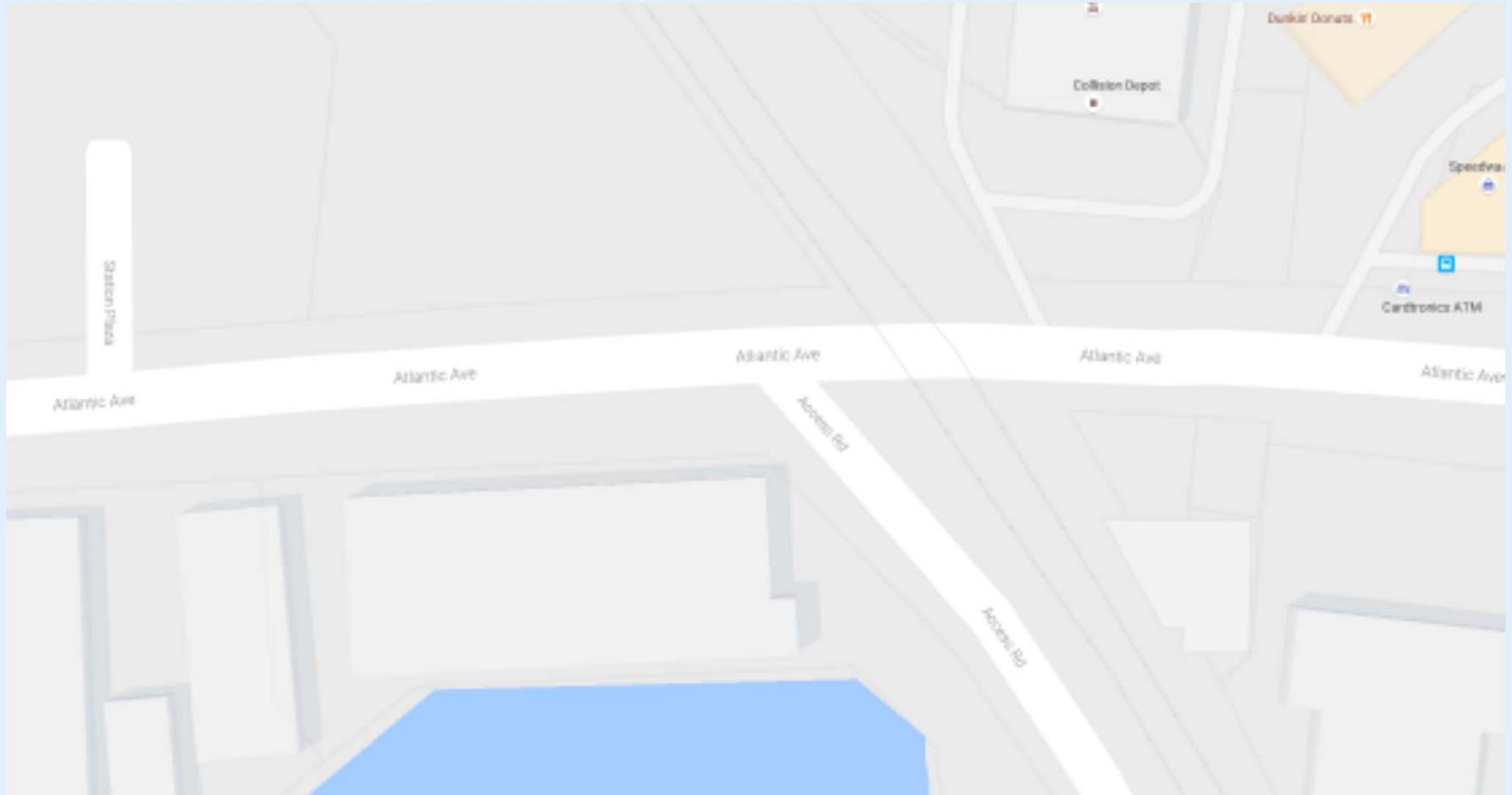


# LIRR Grade Crossing Improvements: Atlantic Avenue and Executive Drive

- Changes to roadway geometry to improve conditions
- Install loop-activated CCTV cameras and digital video recorders
- Install traffic signal pre-emption
- Review additional traffic signal needs



# Atlantic Avenue



# Atlantic Avenue



# Executive Drive



# MNR Grade Crossing Improvements: Virginia Road

- Replace crossing with new concrete road panels, fasteners, crossties, and increase roadway width
- Install tubular markers along the edge lines to help guide motorists over the crossing
- Reprofile and repave the roadway to improve geometry and reduce the existing grade
- Replace concrete barriers and replace with NYSDOT guardrails



