

Supplementary Information for §1269(d)

2012 – 2017

Performance Goals by Agency 2012 – 2017

This section includes, for each agency, narrative analysis followed by tables presenting specific performance data and performance goals for 2012-2017. These performance indicators are monitored on a regular basis by the MTA Board, and current data on many of these is published on the MTA website, www.mta.info/persdashboard/performance14.html.

MTA New York City Transit

Current View

Customer safety continues to be one of the highest priorities for the MTA's bus operations. The 16.8% increase in the Bus Customer Accident Injury rate in 2011 compared to 2010 is being addressed in several ways. Supplemental training is being provided to bus operators, in concert with in-service safety performance observation campaigns.

Although the 9.4% decrease in the Bus Collision Injury rate is an improvement, it has been challenging to interpret performance and establish programs to further improve operations, because we continue to see collisions where the multiple reported injuries are not necessarily consistent with the circumstances of the accidents. This perspective is shared by the New York State Public Transportation Safety Board. Specifically, while the PTSB continues to investigate and report on collisions meeting their threshold criteria of five or more injuries, they continue to observe a frequent disconnect between the purported injuries sustained in an accident and the physical evidence at the scene, including a lack of property damage.

In 2011, we implemented a zero tolerance policy banning cell phones and other electronic devices for our bus operators in conjunction with an agreement with all the represented labor unions. We have observed an improved compliance rate in response to our zero tolerance policy. In 2012, we continue to monitor performance closely while also maintaining our focus on our BASICS, or Bus Accident Safety Improvement Coordination System, program. This joint initiative involving depot and Road Control management reinforces basic safety and customer service skills while interacting with Bus Operators in passenger service. The program was implemented in mid-March and is starting to show the desired results.

The NYCT Bus Mean Distance Between Failures (MDBF) for year-end 2011 was 3,340 miles. This represents a decrease of 9.2 % from the 2010 actual of 3,678. Year-end fleet age was essentially unchanged with the % of buses 12 years or older increasing from 23% in 2010 to 32% in 2011. Although overall performance declined, improvements in MDBF were seen in the fourth quarter and continue into 2012. These improvements are the product our performance based maintenance program that was implemented last year. The 12 month MDBF through May 2012 is 3,695.

Subway Mean Distance Between Failures registered a minor increase, improving from 170,217 miles in December 2010 to 172,700 in December 2011 and decreased to a twelve month average of 165,547 as of June 2012. With the expiration of the R160 cars general warranty in June 2012, it is expected that the MDBF will maintain its current level.

Subway Weekday Terminal On-Time Performance (OTP) evaluates the level of service provided to our customers based on the schedule or service plan in effect at the time and includes all delays. Actual OTP in 2011 was 6.5 percentage points below goal due to a continuing initiative to allow increased access to the right-of-way in order to affect the need for critical maintenance and capital improvements. The tradeoff for the enhanced program however, has been incremental increases in delays and a corresponding decrease in OTP.

Subway Wait Assessment (WA) is defined as the percentage of actual service intervals that do not exceed scheduled intervals by more than 25%. It measures performance in a way that most directly correlates to how customers experience train service in an inner city subway system. WA has increased by 0.9 percent from 2010 to 2011. The projections for 2012 and beyond are slightly more aggressive as Subways continues to use WA data to develop enhanced delay management strategies.

WA for buses showed a decline of 0.7% from 2010 to 2011. The recent deployment of BusTime for routes on Staten Island has increased the quantity of data available and should lead to improvements in 2012 and 2013.

MTA New York City Transit – Bus Operations

Current View

Customer safety continues to be one of the highest priorities for the MTA's bus operations. The 16.8% increase in the Customer Accident Injury rate in 2011 compared to 2010 is being addressed in several ways. Supplemental training is being provided to bus operators, in concert with in-service safety performance observation campaigns.

Although the 9.4% decrease in the Collision Injury rate is an improvement, it has been challenging to interpret performance and establish programs to further improve operations, because we continue to see collisions where the multiple reported injuries are not necessarily consistent with the circumstances of the accidents. This perspective is shared by the New York State Public Transportation Safety Board. Specifically, while the PTSB continues to investigate and report on collisions meeting their threshold criteria of five or more injuries, they continue to observe a frequent disconnect between the purported injuries sustained in an accident and the physical evidence at the scene, including a lack of property damage.

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The Mean Distance Between Failures (MDBF) for year-end 2011 was 3,340 miles. This represents a decrease of 9.2 % from the 2010 actual of 3,678. Year-end fleet age was essentially unchanged with the % of buses 12 years or older increasing from 23% in 2010 to 32% in 2011. Although overall performance declined, improvements in MDBF were seen in the fourth quarter and continue into 2012. These improvements are the product of our performance based maintenance program that was implemented last year. The 12 month MDBF through May 2012 is 3,695.

MTA New York City Transit 2012-2017 Performance Goals

Goal: Improve Safety for Employees and Customers

Indicator	Goal 2011	Actual 2011	Goal 2012	YTD May 2012	2013	2014	2015	2016	2017
Lost Time & Restricted-Duty Rate (per 200,000 work hours) ¹	2.93	3.31	3.15	3.25	2.99	2.84	2.70	2.56	2.44
Subway Customer Injury Rate (per million customers)	3.0	2.94	3.0	2.75*	2.91	2.83	2.74	2.66	2.58
Bus Collision Injury Rate ² (per million miles)	7.41	6.92	6.73	6.66	6.53	6.33	6.14	5.96	5.78
Bus Customer Accident Injury Rate ³	.97	1.17	1.11	1.13	1.11	1.07	1.04	1.01	.98

Goal: Improve Customer Satisfaction

Indicator	Goal 2011	Actual 2011	Goal 2012	YTD 2012	2013	2014	2015	2016	2017
Subway Wait Assessment (%)	79.0	78.8	79.2	79.2	79.7	80.2	80.7	81.2	81.7
Subway Mean Distance Between Failures (miles)	168,000	172,700	168,000	165,547*	166,000	168,000	170,000	172,000	174,000
Bus Wait Assessment (%)	84.1%	81.5%	84.1%	83.0% ⁴	84.5%	84.9%	85.4%	85.8%	86.2%
Bus Mean Distance Between Failures (miles)	3,950	3,340	3,671	3,695 ⁵	3,883	3,685	3,889	4,332	4,004

¹ NYCT and MTA Bus measure lost-time/restricted duty cases on an equivalent per-100-employees basis

² An injury resulting from a collision between a bus and another vehicle, object, person, or animal

³ An injury resulting from an incident on the bus system that occurred while the person was, on board, or alighting the bus (excludes assaults)

⁴ 1st Quarter 2012

⁵ 12 month rolling average, May 2012

MTA Bus Current View

In 2011, the rate of employee lost-time accidents was 8.49. The 12-month rate for Employee On-Duty Lost-Time Accidents was 10.3% lower for 2011 compared to 2010, and overall performance in complying with on-the-job injury protocols during the reporting period was positive. In order to improve employee accident performance, we continue to inform employees of critical safety information relevant to their job responsibilities, reassess existing safety rules and procedures, audit work tasks through direct observations of employees in the workplace, critique hazards in the employee work environment, and provide new and refresher training to ensure the workforce has the appropriate skill set. Additionally, a Lost-Time_Accident task force was created in 2012. Amongst other initiatives, emphasis has been placed on immediate notification to the Location Safety Officer enabling a more thorough and responsive evaluation of each accident.

The rate of Collision Injuries per Million Vehicle Miles improved by 20.8% in 2011. The year end result was 4.72 per million miles down from 5.96 in 2010. Customer Accident Injuries per Million Customers increased by 19.4%. The year end result was 1.54 per million customers up from 1.29 in 2010. Customer safety continues to be one of the highest priorities for the MTA's bus operations. The increase in the Customer Accident Injury rate in 2011 compared to 2010 is being addressed. Supplemental training is being provided to bus operators, in concert with in-service safety performance observation campaigns

In 2011, we implemented a zero tolerance policy banning cell phones and other electronic devices for our bus operators, in conjunction with an agreement with all the represented labor unions. We have observed an improved compliance rate in response to our zero tolerance policy. In 2012 we continue to monitor performance closely while also maintaining our focus on our BASICS, or Bus Accident Safety Improvement Coordination System, program. This joint initiative involving depot and Road Control management reinforces basic safety and customer service skills while interacting with Bus Operators in passenger service. The program was implemented in mid-March and is starting to show the desired results.

Mean Distance Between Failures (MDBF) for year end 2011 was 3,430 miles. This represents a slight decrease from the 2010 actual of 3,438 miles. Year end fleet age increased from 6.70 to 7.32 years, and the percent of buses under two years of age decreased from 10% to 5% of the total fleet. Improvements in MDBF were seen in the fourth quarter of 2011 and continue into 2012. These improvements are the product of our performance based maintenance program that was implemented last year. The 12 month MDBF through May 2012 is 3,968.

MTA Bus Company 2013-2017 Performance Goals

Goal: Improve Safety for Employees and Customers

Indicator	Goal 2011	Actual 2011	Goal 2012	YTD May 2012	2013	2014	2015	2016	2017
Lost Time & Restricted-Duty Rate (per 200,000 work hours) ¹	9.19	8.49	5.37	9.73	7.81	7.19	6.47	5.85	5.26
Bus Collision Injury Rate ² (per million miles)	5.78	4.72	4.58	4.63	4.44	4.31	4.18	4.05	3.93
Bus Customer Accident Injury Rate ³ (per million customers)	1.27	1.54	1.31	1.24	1.27	1.23	1.2	1.16	1.12

Goal: Improve Customer Satisfaction

Indicator	Goal 2011	Actual 2011	Goal 2012	YTD May 2012	2013	2014	2015	2016	2017
Mean Distance Between Failures (miles)	3603	3430	3790	3,698 ⁶	4320	3991	4569	4214	3935

⁶ 12 month rolling average, May 2012

MTA Long Island Rail Road

Current View

Transporting LIRR customers to their destinations safely and securely is the LIRR's highest priority. In 2011, however there was an increase in customer injuries. The customer rate was 5.88 and this represented an increase of 9% when compared to 2010. The increase in customer injuries could be attributed to the several blizzards endured by the Northeast in the 1st Quarter of 2011. Based on a review of 2011 trends, the LIRR is launching a focused customer safety information campaign to raise customer awareness of safety matters.

It is impossible for the LIRR to provide reliable services to its customers without ensuring a safe workplace for its 6,453 employees. While the Employee Lost Time and Restricted Duty Rate remains below 3 reported incidents per 200,000 worker hours, it did increase from 2.74 in 2010 to 2.90 in 2011. The LIRR has initiated a multi-faceted plan to address the increase in employee injuries. The plan includes: updating and re-instituting several successful safety programs and initiatives; providing more focused analysis and reporting to all levels of management staff; improving the roadway worker protection program, and implementing Project FOCUS to increase awareness and reduce incidents resulting from distractive activities.

One of the most important predictors of customer satisfaction is the ability of the LIRR to deliver passengers to their intended destinations. After a very difficult 2010 where on-time performance (OTP) dropped when we had a fire in an important signal tower and numerous severe weather events, in 2011 our OTP increased. Our OTP for 2011 was 93.7, an increase of 1%.

Our mean distance between failure (MDBF) performances in 2011 was record setting. Across the entire fleet, MDBF reached 169,724 miles, which was 13.4% better than the 2010 MDBF of 149,651 miles. Our oldest fleet, the M3's, again showed increase going from 56,754 miles in 2010 to 68,731 miles (21% increase). This increase is largely attributable to the efforts of the M3 Performance Improvement Team and initiatives targeting the propulsion system. At the same time, the M7 fleet continues to exceed expectations, achieving an MDBF of 431,125 miles in 2011, an increase of 27% over 2010.

MTA Long Island Rail Road 2013-2017 Performance Goals

Goal: Improve Safety for Employees and Customers

Indicator	Goal 2011	Actual 2011	Goal 2012	YTD May 2012	2013	2014	2015	2016	2017
Lost Time & Restricted-Duty Rate (per 200,000 work hours)	2.25	2.90	2.38	2.00	2.30	2.16	1.94	1.92	1.81
Customer Injury Rate (per million customers)	5.22	5.88	5.14	6.42	4.67	4.51	4.30	4.04	3.86

Goal: Improve Customer Satisfaction

Indicator	Goal 2011	Actual 2011	Goal 2012	YTD May 2012	2013	2014	2015	2016	2017
On-Time Performance ⁷	95.1%	93.7%	95.1%	95.9%	95.1%	95.1%	95.1%	95.1%	95.1%
Mean Distance Between Failures (miles)	150,000	169,724	150,000	195,190	150,000*	150,000*	150,000*	150,000*	150,000**

⁷ Operations may be adversely affected by the many construction projects that are taking place or are planned to commence during the 2013 – 2017 period. Consequently, projected OTP may be impacted and require revising the goals of 2013 through 2017. The LIRR intends to use all available measures to maintain our on-time performance while we carry out improvements to the system.

* M-7 aging and design defect issues, M-3 RCM maintenance reductions, and C-3 door system design issues & pending resolution may prevent MDBF improvements in the future.

** Due to M-9 initial design defect resolutions, testing phase and projected initial runs for only a partial period of 2017, it is too soon to predict its overall performance impact in 2017.

MTA Metro-North Railroad Current View

Continuing improvement in performance indicators for employees' safety, injuries per million customers, mechanical reliability as measured by Mean Distance Between Failures (MDBF) and On-Time Performance (OTP) demonstrate Metro-North's strong performance

Metro-North's 2012 On-Time Performance for year-to-date as of June was 98.1%, significantly higher than the 2011 performance of 96.9% for the year. 2011 was the fifteenth consecutive year that the railroad operated above the 96% mark. Metro-North's OTP goal for 2012 is 97.8%. This accounts for ongoing construction projects on the New Haven Line scheduled in that time period which will reduce operating capacity and impact railroad operations.

The quality of Metro-North's service is directly tied to the quality of car fleet performance. MDBF continues to climb, reaching 175,739 for the year-to-date as of June 2012. This is a 53.69% increase over the 2011 MDBF of 114,347 miles. Key factors that enabled the significant improvement in this area included investments in new M-8 cars and the Critical System Replacement program for M-2 cars. Further improvement is expected to be achieved as the new M-8s continue to go into service on the New Haven Line.

Safety performance continues to be Metro-North's priority focus. At 1.95 for the first six months of 2012, employee safety as measured by the rate of lost time or restricted duty injuries per 200,000 work hours has improved slightly from 2011's rate of 2.0.

Goal: Improve Safety for Employees and Customers

Indicator	Goal 2011	Actual 2011	Goal 2012	YTD June 2012	2013	2014	2015	2016	2017
Lost Time & Restricted-Duty Rate (per 200,000 work hours)	1.7	2.0	2.0	1.95	1.95	1.90	1.85	1.80	1.75
Injuries per Million Customers	2.8	3.1	2.7	2.68	2.7	2.6	2.5	2.4	2.3

Goal: Improve Customer Satisfaction

Indicator	Goal 2011	Actual 2011	Goal 2012	YTD June 2012	2013	2014	2015	2016	2017
On-Time Performance	97.8%	96.9%	97.8%	98.1%	98%	98%	98%	98%	98%
Mean Distance Between Failures (miles)	125,000	114,347	135,000	175,739	150,000	150,000	160,000	160,000	160,000

MTA Bridges and Tunnels

Current View

Due to the increase in E-ZPass use, and the resulting reduction in cash lanes, the Staffed Lane Changeover Time measure, which has remained consistently high (97-98 percent), has been eliminated and Availability of E-ZPass Toll Lanes has been added as a more important measure of customer service. There are currently 189 E-Zpass lanes at MTA crossings. The E-ZPass system is in its fifteenth year of operation and the overall market share of 79.4 percent is among the highest of the 22 agencies in the E-ZPass Interagency Group. B&T continues to encourage its customers to use E-ZPass to pay tolls and expects E-ZPass market share to continue to grow.

Safety for both employees and customers remains one of B&T's highest priorities. In 2011, B&T ended the year with a rate of 5.4, down from the previous year's rate of 5.7. But the year-to-date rate for 2012 was 3.7 through May 2012. Employee injuries have decreased by more than 75 percent since the All-Agency Safety Initiative began in 1996.

In terms of customer safety, the Collision Rate with Injury per Million Vehicles is higher thus far in 2012 (0.93) than in 2011 (0.88) but still lower than the 2009 mark of 0.96. Since 1996, the Authority has been able to reduce collisions with injury by more than one third, through inter-departmental actions and enforcement efforts to maintain high safety standards in both construction projects and daily operations.

MTA Bridges & Tunnels 7/24

2013-2017 Performance Goals

Goal: Improve Safety for Employees and Customers

Indicator	Goal 2011	Actual 2011	Goal 2012	YTD May 2012	2013	2014	2015	2016	2017
Lost Time & Restricted-Duty Rate (per 200,000 work hours)		5.4							
Collisions with Injury Rate (per million vehicles)	0.85	0.88	0.84	0.93	0.86	0.86	0.86	0.86	0.86

Goal: Improve Customer Satisfaction

Indicator	Goal 2011	Actual 2011	Goal 2012	YTD June 2012	2013	2014	2015	2016	2017
E-ZPass Market Share	76.8	79.4	81.4	81.1	82.4	83.4	84.4	84.9	85.4
E-ZPass Toll Lane Availability	99.50%	99.94%	99.50%	99.98%	99.50%	99.50%	99.50%	99.50%	99.50%

Operating Resources and Costs by Agency 2012 – 2017

The following table presents projected operating resources and costs by agency for 2013-2017. Details are presented in the attached financial plan.

METROPOLITAN TRANSPORTATION AUTHORITY
July Financial Plan 2013-2017
Non-Reimbursable
(\$ in millions)

Non-Reimbursable

	<u>2010</u> <u>Actual</u>	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Midyear</u> <u>Forecast</u>	<u>2013</u> <u>Preliminary</u> <u>Budget</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
<u>Fare and Toll Revenue</u>								
New York City Transit	\$3,320	\$3,629	\$3,705	\$3,748	\$3,802	\$3,857	\$3,889	\$3,913
Bridges and Tunnels	1,417	1,502	1,507	1,502	1,507	1,513	1,524	1,528
Metro-North Railroad	527	568	600	624	651	665	678	687
Long Island Rail Road	523	572	585	595	599	603	606	608
MTA Bus Company	168	179	183	184	186	188	189	189
Long Island Bus	44	46	0	0	0	0	0	0
Staten Island Railway	5	6	6	6	6	6	6	6
<i>Subtotal</i>	\$6,003	\$6,501	\$6,586	\$6,659	\$6,751	\$6,832	\$6,891	\$6,932

Other Operating Revenue

New York City Transit	\$283	\$307	\$329	\$357	\$388	\$424	\$465	\$511
Bridges and Tunnels	16	15	15	14	14	14	14	14
Metro-North Railroad	47	48	47	48	50	52	54	56
Long Island Rail Road	34	34	41	39	40	41	42	42
MTA Headquarters	57	60	59	58	59	60	61	62
MTA Bus Company	22	21	19	19	20	20	21	21
Long Island Bus	2	1	0	0	0	0	0	0
Staten Island Railway	2	2	2	2	2	2	2	2
First Mutual Transportation Assurance Company	30	22	31	32	32	33	33	34
<i>Subtotal</i>	\$491	\$510	\$543	\$569	\$606	\$646	\$692	\$742

Total Operating Revenue	\$6,495	\$7,011	\$7,128	\$7,228	\$7,356	\$7,478	\$7,584	\$7,674
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Operating Expense

New York City Transit	\$8,337	\$9,110	\$9,532	\$9,870	\$10,234	\$10,741	\$11,223	\$11,719
Bridges and Tunnels	516	512	561	586	626	667	695	724
Metro-North Railroad	1,189	1,235	1,308	1,368	1,395	1,442	1,489	1,532
Long Island Rail Road	1,515	1,529	1,634	1,657	1,706	1,784	1,917	2,040
MTA Headquarters	391	462	468	453	455	467	483	503
Bus Company	598	682	630	629	644	680	703	722
Long Island Bus	141	144	0	0	0	0	0	0
Staten Island Railway	49	45	51	50	55	57	58	55
First Mutual Transportation Assurance Company	1	8	(5)	(3)	(2)	(14)	(25)	(41)
Other	(20)	(6)	106	185	190	201	209	215

Total Operating Expense	\$12,717	\$13,722	\$14,285	\$14,796	\$15,304	\$16,025	\$16,752	\$17,470
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Dedicated Taxes and State/Local Subsidies	\$4,914	\$5,150	\$5,470	\$5,704	\$5,954	\$6,231	\$6,452	\$6,574
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Debt Service (excludes Service Contract Bonds)	(\$1,781)	(\$1,934)	(\$2,124)	(\$2,335)	(\$2,570)	(\$2,806)	(\$2,996)	(\$3,101)
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Capital Resources and Costs

2010-2014

Capital Program Information

The 2010-2014 Capital Program was approved by CPRB on June 1, 2010. A modified version of the plan was subsequently approved on June 12, 2012.

Please see the attached 2010-2014 Capital Program executive summary and plan book document for details.

Commitments

The MTA has estimated its capital needs for the core program for 2010-2014 in the table below. Commitments come directly from the CPRB-approved 2010-2014 Capital Program.

2010-2014 Core Capital Program Estimated Commitments	2010	2011	2012	2013	2014	Total
New York City Transit	\$3,525.4	\$1,507.5	\$1,903.9	\$2,415.1	\$2,297.1	\$11,649.0
Long Island Rail Road	300.2	700.8	256.4	541.9	516.3	2,315.6
Metro-North Railroad	392.9	274.5	286.1	292.3	298.3	1,544.1
MTA Bus	50.9	78.4	115.4	30.4	21.9	297.0
Bridges and Tunnels	384.4	570.0	420.0	563.6	141.2	2,079.2
MTA Wide Security Program	50.0	50.0	135.0	50.0	50.0	335.0
MTA Interagency	222.0	8.2	58.4	13.2	13.2	315.0
Total	\$4,925.8	\$3,189.4	\$3,175.2	\$3,906.5	\$3,338.0	\$18,534.9

The approved 2010-2014 capital plan provides \$4,441 million for East Side Access (ESA) and Second Avenue Subway (SAS). (Previous capital programs provided \$7,338 million for ESA and SAS.) This funding is a portion of the overall costs for each and is expected to fund these projects to completion; ESA is estimated at \$7,328 million and SAS is estimated at \$4,451 million.

Resources:

Included in table 2 of the attached 2010-2014 Capital Program plan book document is a list of funding resources for first two years of the five-year program only (2010 and 2011). The specific funding for 2012 through 2014 will be identified before advancing work to address the capital needs identified for these years.

Service Configuration, Frequency, and Others by Agency

MTA New York City Transit

List of Tables

Table	Description
	Maps and Schedules
1	Bus Loading Guidelines
2	Subway Loading Guidelines
3	Subway and Bus Policy Headways
4	Subway and Bus Performance Targets
5	Subway Facilities and Equipment
6	Subway Passenger Car Fleet Roster
7	Subway Locomotive and Work Train Fleet
8	Subway Shops and Yards
9	Bus Facilities and Equipment
10	Bus Depots by Division
11	Base Shop Characteristics
12	Staten Island Railway Performance Targets
13	Staten Island Railway Facilities and Equipment

NYC Transit and Staten Island Railway Maps and Schedules

For maps and schedules of NYC Transit subway and bus services, and for maps and schedules of Staten Island Railway services, please visit the MTA web site:

<http://www.mta.info>

Table 1
Local Bus Loading Guidelines

Standard 40' Bus

Weekday Peak Period Service Load Guidelines

Grid Routes			Feeder Routes		
7:00A.M. to 9:00A.M. and 4:00P.M. to 7:00P.M.			6:30A.M. to 8:30A.M. and 4:30P.M. to 7:30P.M.		
Maximum Riders/1/2 hr	Headway (Minutes)	Maximum Avg.Load Per Trip	Maximum Riders/1/2 hr	Headway (Minutes)	Maximum Avg.Load Per Trip
36	30.0	36	36	30.0	36
54	20.0	36	63	20.0	42
90	15.0	45	94	15.0	47
120	12.0	48	130	12.0	52
156	10.0	52	171	10.0	54
220	7.5	54	252	7.5	54
290	6.0	54	325	6.0	54
360	5.0	54	390	5.0	54
915	2.0	54	990	2.0	54

Off - Peak Period Service Load Guidelines

Grid Routes			Feeder Routes		
10A.M. to 2P.M. and 7P.M. to 9P.M. Weekdays			9:30A.M. to 2P.M. and 8:30P.M. to 9P.M. Weekdays		
6A.M. to 9P.M. Saturday and Sunday			6A.M. to 9P.M. Saturday and Sunday		
Maximum Riders/hour	Headway (Minutes)	Maximum Avg.Load Per Trip	Maximum Riders/hour	Headway (Minutes)	Maximum Avg.Load Per Trip
72	30.0	36	72	30.0	36
108	20.0	36	108	20.0	36
144	15.0	36	144	15.0	36
180	12.0	36	190	12.0	38
216	10.0	36	252	10.0	42
296	7.5	37	376	7.5	47
400	6.0	40	500	6.0	50
516	5.0	43	600	5.0	50
690	4.0	46	750	4.0	50
823	3.5	48	874	3.5	51

Late Evening Service Load Guidelines

Grid Routes			Feeder Routes		
9:00 P.M. to 1:00 A.M.			9:00 P.M. to 1:00 A.M.		
Weekdays, Saturday and Sunday			Weekdays, Saturday and Sunday		
Maximum Riders/hour	Headway (Minutes)	Maximum Avg.Load Per Trip	Maximum Riders/hour	Headway (Minutes)	Maximum Avg.Load Per Trip
72	30.0	36	72	30.0	36
108	20.0	36	108	20.0	36
144	15.0	36	144	15.0	36
180	12.0	36	180	12.0	36
216	10.0	36	216	10.0	36
288	7.5	36	288	7.5	36
617	3.5	36	617	3.5	36

Note 1 - Transition periods between peak and off peak guidelines use average of both standards

Articulated Bus

Weekday Peak Period Service Load Guidelines

Grid Routes			Feeder Routes		
7:00A.M. to 9:00A.M. and 4:00P.M. to 7:00P.M.			6:30A.M. to 8:30A.M. and 4:30P.M. to 7:30P.M.		
Maximum Riders/1/2 hr	Headway (Minutes)	Maximum Avg.Load Per Trip	Maximum Riders/1/2 hr	Headway (Minutes)	Maximum Avg.Load Per Trip
n/a	30.0	n/a	n/a	30.0	n/a
n/a	20.0	n/a	n/a	20.0	n/a
n/a	15.0	n/a	n/a	15.0	n/a
175	12.0	70	190	12.0	76
225	10.0	75	249	10.0	83
328	7.5	82	360	7.5	90
420	6.0	84	450	6.0	90
504	5.0	84	540	5.0	90
593	4.3	85	649	4.3	93

Off - Peak Period Service Load Guidelines

Grid Routes			Feeder Routes		
10A.M. to 2P.M. and 7P.M. to 9P.M. Weekdays			9:30A.M. to 2P.M. and 8:30P.M. to 9P.M. Weekdays		
6A.M. to 9P.M. Saturday and Sunday			6A.M. to 9P.M. Saturday and Sunday		
Maximum Riders/hour	Headway (Minutes)	Maximum Avg.Load Per Trip	Minimum/Maximum Riders/hour	Headway (Minutes)	Maximum Avg.Load Per Trip
n/a	30.0	n/a	n/a	30.0	n/a
n/a	20.0	n/a	n/a	20.0	n/a
n/a	15.0	n/a	n/a	15.0	n/a
280	12.0	56	285	12.0	57
336	10.0	56	342	10.0	57
448	7.5	56	496	7.5	60
560	6.0	56	650	6.0	65
684	5.0	57	780	5.0	65
915	4.0	61	975	4.0	65
1200	3.2	64	1238	3.2	66

Late Evening Service Load Guidelines

Grid Routes			Feeder Routes		
9:00 P.M. to 1:00 A.M.			9:00 P.M. to 1:00 A.M.		
Weekdays, Saturday and Sunday			Weekdays, Saturday and Sunday		
Maximum Riders/hour	Headway (Minutes)	Avg.Load Per Trip	Maximum Riders/hour	Headway (Minutes)	Maximum Avg.Load Per Trip
n/a	30.0	n/a	n/a	30.0	n/a
n/a	20.0	n/a	n/a	20.0	n/a
n/a	15.0	n/a	n/a	15.0	n/a
280	12.0	56	280	12.0	56
336	10.0	56	336	10.0	56
448	7.5	56	448	7.5	56
1050	3.2	56	1050	3.2	56

Note 1 - Standard bus guidelines used for loadings requiring headways of 15 minutes or longer

Note 2 - Transition periods between peak and off peak guidelines use average of both standards

Table 1
Express Bus Loading Guidelines

	Trips per 30 minutes	Headway (Min.)	High Capacity Express Bus: Average Maximum Load
Peak	1	30	50
	2	15	50
	3	10	50
	4	7.5	50
	5	6	50
	6	5	50
	7.5 or more	4 or less	50
Off-Peak	0.5	60	20
	1	30	35
	1.5	20	45
	2	15	50
	3 or more	10 or less	50

Source: Division of Operations Planning, Department of the Executive Vice President

Table 2
Subway Loading Guidelines

"A" Division Car

Weekday Peak (7:00 - 9:30 a.m., 4:00 - 6:30 p.m.)							
Headway	Load/Car	# of Standees	Cars/Train	Trips per Half-Hour	Sq. Ft. per Standee	% Seated	Riders per Half-Hour
2.0	110	70	10	15.0	3.0	36%	16,500
2.5	110	70	10	12.0	3.0	36%	13,200
3.0	110	70	10	10.0	3.0	36%	11,000
4.0	110	70	10	7.5	3.0	36%	8,250
5.0	105	65	10	6.0	3.2	38%	6,300
6.0	100	60	10	5.0	3.5	40%	5,000
7.5	95	55	10	4.0	3.8	42%	3,800
10.0	90	50	10	3.0	4.2	44%	2,700

Midday (10:30 a.m. - 3:00 p.m.), Evening (8:00 p.m. - 12:00 Midnight), Saturday, and Sunday							
Headway	Load/Car	# of Standees	Cars/Train	Trips per Hour	Sq. Ft. per Standee	% Seated	Riders per Hour
4.0	50	10	10	15.0	21.0	80%	7,500
5.0	50	10	10	12.0	21.0	80%	6,000
6.0	50	10	10	10.0	21.0	80%	5,000
7.5	50	10	10	8.0	21.0	80%	4,000
8.5	50	10	10	7.0	21.0	80%	3,500
10.0	50	10	10	6.0	21.0	80%	3,000
12.0	50	10	10	5.0	21.0	80%	2,500

Owl (1:00 - 5:00 a.m.)							
Headway	Load/Car	# of Standees	Cars/Train	Trips per Hour	Sq. Ft. per Standee	% Seated	Riders per Hour
20.0	50	10	10	3.0	21.0	80%	1,500

Notes:

1. During the transition between these time periods, passenger loads between those shown above are permitted.
2. The 7 has 11 cars per train. 42nd Street Shuttle operates with 3- and 4-car trains.
3. Division "A" cars seat 38 to 43 passengers (seats vary by car type).

Source: Division of Operations Planning, Department of the Executive Vice President

Table 2
Subway Loading Guidelines

"B" Division 60-Foot Car

Weekday Peak (7:00 - 9:30 a.m., 4:00 - 6:30 p.m.)							
Headway	Load/Car	# of Standees	Cars/Train	Trips per Half-Hour	Sq. Ft. per Standee	% Seated	Riders per Half-Hour
2.0	145	103	10	15.0	3.0	29%	21,750
2.5	145	103	10	12.0	3.0	29%	17,400
3.0	145	103	10	10.0	3.0	29%	14,500
4.0	145	103	10	7.5	3.0	29%	10,875
5.0	135	93	10	6.0	3.4	31%	8,100
6.0	125	83	10	5.0	3.8	34%	6,250
7.5	115	73	10	4.0	4.4	37%	4,600
10.0	115	73	10	3.0	4.4	37%	3,450

Midday (10:30 a.m. - 3:00 p.m.), Evening (8:00 p.m. - 12:00 Midnight), Saturday, and Sunday							
Headway	Load/Car	# of Standees	Cars/Train	Trips per Hour	Sq. Ft. per Standee	% Seated	Riders per Hour
4.0	53	11	10	15.0	29.4	80%	7,875
5.0	53	11	10	12.0	29.4	80%	6,300
6.0	53	11	10	10.0	29.4	80%	5,250
7.5	53	11	10	8.0	29.4	80%	4,200
8.5	53	11	10	7.0	29.4	80%	3,675
10.0	53	11	10	6.0	29.4	80%	3,150
12.0	53	11	10	5.0	29.4	80%	2,625

Owl (1:00 - 5:00 a.m.)							
Headway	Load/Car	# of Standees	Cars/Train	Trips per Hour	Sq. Ft. per Standee	% Seated	Riders per Hour
20.0	53	11	10	3.0	29.4	80%	1,575

Notes:

1. During the transition between these time periods, passenger loads between those shown above are permitted.
2. **C**, **J**, **L**, **M** and **Z** trains operate with 8 cars per train.
3. R143 and R160 60-foot cars seat 42 to 43 passengers (seats vary by car type). R32 and R42 cars seat 50 passengers, but are not included here because they are slated for retirement.

Source: Division of Operations Planning, Department of the Executive Vice President

Table 2
Subway Loading Guidelines

"B" Division 75-Foot Car

Weekday Peak (7:00 - 9:30 a.m., 4:00 - 6:30 p.m.)							
Headway	Load/Car	# of Standees	Cars/Train	Trips per Half-Hour	Sq. Ft. per Standee	% Seated	Riders per Half-Hour
2.0	175	103	8	15.0	3.0	41%	21,000
2.5	175	103	8	12.0	3.0	41%	16,800
3.0	175	103	8	10.0	3.0	41%	14,000
4.0	175	103	8	7.5	3.0	41%	10,500
5.0	165	93	8	6.0	3.3	44%	7,920
6.0	155	83	8	5.0	3.7	46%	6,200
7.5	145	73	8	4.0	4.2	50%	4,640
10.0	140	68	8	3.0	4.5	51%	3,360

Midday (10:30 a.m. - 3:00 p.m.), Evening (8:00 p.m. - 12:00 Midnight), Saturday, and Sunday							
Headway	Load/Car	# of Standees	Cars/Train	Trips per Hour	Sq. Ft. per Standee	% Seated	Riders per Hour
4.0	90	18	8	15.0	17.2	80%	10,800
5.0	90	18	8	12.0	17.2	80%	8,640
6.0	90	18	8	10.0	17.2	80%	7,200
7.5	90	18	8	8.0	17.2	80%	5,760
8.5	90	18	8	7.0	17.2	80%	5,040
10.0	90	18	8	6.0	17.2	80%	4,320
12.0	90	18	8	5.0	17.2	80%	3,600

Owl (1:00 - 5:00 a.m.)							
Headway	Load/Car	# of Standees	Cars/Train	Trips per Hour	Sq. Ft. per Standee	% Seated	Riders per Hour
20.0	90	18	8	3.0	17.2	80%	2,160

Notes:

1. During the transition between these time periods, passenger loads between those shown above are permitted.
2.  Rockaway Park Shuttle and  routes operate with 4 car trains.  Franklin Av Shuttle operates with 2 car trains.
3. Division "B" 75-foot cars seat approximately 70 to 74 passenger (seats vary by car type).

Source: Division of Operations Planning, Department of the Executive Vice President

Table 3
Bus and Subway Policy Headways

Minimum Service Frequencies

Local Bus

- *All Times except Late Nights* : If service is provided, it should operate at least every 30 minutes.
- *Late Nights (1 a.m. – 5 a.m.)* : If service is provided, it should operate at least every 60 minutes.

Express Bus

- *Weekday Rush Hours and Weekday Middays* : If service is provided, it should operate at least every 30 minutes.
- *Weekday Evenings and Weekends* : If service is provided, it should operate at least every 60 minutes.

Subway

- *Weekday Rush Hours, Weekday Middays, and Saturday Middays* : If service is provided, it should operate at least every 10 minutes.
- *Weekday Evenings, Saturday Evenings, and All Day on Sunday* : If service is provided, it should operate at least every 12 minutes.
- *Late Nights (1 a.m. – 5 a.m.)* : If service is provided, it should operate at least every 20 minutes.

Table 4
Subway and Bus Performance Targets

	Goal 2011	Act. 2011	Actual 1st Half 2012	Proj. 2012	Proj. 2013	Proj. 2014	Proj. 2015	Proj. 2016	Proj. 2017
Safety:									
Subway Customer Injuries per Million Customers	3.00	2.94	2.80*	3.00	2.91	2.83	2.74	2.66	2.58
Bus Collision Injuries per Million Miles	7.41	6.92	6.85	6.73	6.53	6.33	6.14	5.96	5.78
Bus Customer Accident Injuries per Million Customers	0.97	1.17	1.16	1.11	1.11	1.07	1.04	1.01	0.98
Lost-Time/Restricted Duty Cases per 100 Employees	2.93	3.31	3.26	3.15	2.99	2.84	2.70	2.56	2.44
Customer Satisfaction:									
Subway Wait Assessment	79.0%	78.8%	79.2%*	79.2%	79.7%	80.2%	80.7%	81.2%	81.7%
Subway Weekday Terminal On-Time Performance	91.9%	85.4%	84.6%	91.9%	92.0%	92.1%	92.2%	92.3%	92.4%
Subway Mean Distance Between Failures	168,000	172,700	165,547*	168,000	166,000	168,000	170,000	172,000	174,000
Bus Wait Assessment	84.1%	81.5%	82.6%	84.1%	84.5%	84.9%	85.4%	85.8%	86.2%
Bus Mean Distance Between Failures	3,950	3,340	4,388	3,671	3,883	3,685	3,889	4,332	4,004
Cleaning:									
Litter Condition in Cars - % Passing (Presence of Litter) - Measured at Terminal	98.0%	98%	99.0%	98.0%	98.0%	98.0%	98.0%	98.0%	98.0%
Cleanliness of Car Floors and Seats - % Passing (Degree of Dirtiness) - Measured at Terminal	98.0%	97%	98.0%	98.0%	98.0%	98.0%	98.0%	98.0%	98.0%
Litter Condition in Stations - % Passing (Presence of Litter) - Measured Before Morning Peak	N/A	77%	77.0%	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%
Floor and Seat Cleanliness Conditions in Stations - % Passing (Degree of Dirtiness) - Measured Before Morning Peak	93.0%	92%	90.0%	92.0%	92.0%	92.0%	92.0%	92.0%	92.0%
Litter Condition in Buses - % Passing (Presence of Litter) - Measured Before Entering Service	99.0%	99%	99.0%	99.0%	98.0%	98.0%	98.0%	98.0%	98.0%
Cleanliness of Bus Interiors - % Passing (Degree of Dirtiness) - Measured Before Entering Service	99.0%	99%	99.0%	99.0%	98.0%	98.0%	98.0%	98.0%	98.0%
Air Conditioning:									
Climate Condition in Cars % of cars with with average interior temperature between 58F and 78F.	98.0%	94%	95.0%	94.0%	94.0%	94.0%	94.0%	96.0%	97.0%
Climate Control Condition in Buses % of buses with with average interior temperature between 50F and 78F, except if ambient temperature is above 98F, then the climate control must maintain a 20F gradient.	94.0%	93%	95.0%	94.0%	94.0%	94.0%	94.0%	94.0%	94.0%

* The "Actual 1st Half 2012" Subway Customer Injuries, MDBF, and Wait Assessment results are the 12 month rolling results for July 2011 thru June 2012.

Source: Department of Subways, Department of Buses, Office of System Safety (actuals for Wait Assessment, On-Time Performance, and cleaning and air conditioning indicators from Operations Planning)

Table 5
Subway Facilities and Equipment - Fall 2012

Category	Description	Quantity	
Fleet:	Subway Passenger Cars	6,292	
	Work Motor Cars	46	
	Non-motorized Work Train Cars	365	
	Locomotives	72	
Stations:	Subway Stations	468	*
Infrastructure:	Mainline Track	659	Miles
	Bridges	6	
	Bridges & Overpasses (Land)	78	
	Submarine Tunnels	14	
	Subway Tunnel Length	138	Route Miles
		438	Track Miles
	Subway Tunnel Lighting	500	Track Miles
	Fan Plants	196	
	Pump Rooms	294	
	Emergency Exits	543	
	Elevated Structures	70	Route Miles
		192	Track Miles
	All yards, Shops & Storage Areas (non revenue)	171	
	Signal Enclosures	670	
	Signal Equipment	41,272	Devices
	Contact Rail Cable	1,050	Miles
	Power Substation Enclosures	215	
	Power Substation Transformers	362	
	Power Substation Rectifiers	357	
	DC Circuit Breakers	1,377	
	Elevators	237	
	Escalators	178	
	Power Walks	2	
	Swing Bridge	1	
Facilities:	Railcar Overhaul Shops	2	
	Car Maintenance Shops	14	
	Yards	23	

* Includes 2 closed stations:
 Cortlandt Street - World Trade Center (#1 Line)
 Aqueduct Racetrack (A Line)

Source: Department of Subways

Table 6
Subway Passenger Car Fleet Roster - Fall 2012

<u>Division/ Car Class</u>	<u>Car Number</u>	<u># of Cars</u>	<u>Yr. Built</u>	<u>Car Builder</u>	<u>Overhauled</u>
"A " Division:					
51' 4" Cars					
R62	1301 - 1625	315	1984 - 1985	Kawasaki	
R62A	1651 - 2475	824	1985 - 1987	Bombardier	
R110A	8001 - 8010	0	1993	Kawasaki	
R142	1101 - 1250	1,030	2000 - 2003	Bombardier	
	6301 -7200				
R142A	7211 - 7810	600	2000 - 2005	Kawasaki	
Total		2,769			
"B " Division					
60' 6" Cars					
R32	3350 - 3949	222	1964 - 1965	Budd	1988 - 90
R38	3950 - 4149	0	1966 - 1967	St. Louis	1987 - 88
R40	4150 - 4549	0	1968 - 1969	St. Louis	1987 - 89
R42	4550 - 4949	50	1969 - 1970	St. Louis	1988 - 89
R143	8101 - 8312	212	2001 - 2003	Kawasaki	
R160A	8313 - 8712	1,002	2007 - 2010	ALSKAW - Alstom	
	9233 - 9802				
	9943 - 9974				
R160B	8713 - 9232	660	2007 - 2010	ALSKAW -Kawasaki	
	9803 - 9942				
Total		2,146			
67' 0" Cars					
R110B	3001 - 3009	0	1993	Bombardier	
75' 0" Cars					
R44	5202 - 5479	0	1972 - 1974	St. Louis	1990 - 92
R46	5482 - 6258	752	1975 - 1977	Pullman	1989 - 91
R68	2500 - 2924	425	1986 - 1988	Westinghouse Amrail	
R68A	5001 - 5200	200	1988 - 1989	Kawasaki	
Total		1,377			
Total - All Railcars		6,292			

Source: Division of Car Equipment, Department of Subways

Table 7
Subway Locomotive and Work Train Fleet - Fall 2012

<u>Vehicle Type</u>	<u>Total</u>
Flat Cars*	155
Diesel Locomotives	62
Rider Cars	40
Work Motor Cars	46
Crane Cars	39
Hopper Cars	28
Refuse Collection Propulsion	18
Continuous Welded Rail Train Cars	16
Pump and Reach	12
Electric Locomotives	10
Vacuum Train Cars	10
De-Icer Cars	8
Snow Removal (Jet Hurricane)	5
Snow Throwers	4
Tampers	4
Track Geometry Cars	4
Tank Cars	3
Rail Adhesion Cars	3
Rail Grinders	0
Weld Cars	2
Ballast Regulators	2
Signal Supply Cars	2
Track Refuse Collection Cars	10
Work Train Fleet Total	483

***includes flats (128 cars) and refuse flats (27 cars)**

Source: Division of Car Equipment, Department of Subways

Table 8
Subway Shops and Yards - Fall 2012

Car Maintenance Shops

"A" Division	"B" Division	Work Equipment
239th Street	Concourse	Pelham Diesel
240th Street	Coney Island Inspection	
Jerome	East New York	
East 180th Street	Jamaica	
Corona	Pitkin	
Pelham	207th Street Inspection	
Livonia		

Railcar Overhaul Shops

Coney Island Overhaul
207th Street Overhaul

Yards

"A" Division	"B" Division
137th Street	36th-38th Streets
148th Street	174th Street
180th Street	207th Street
239th Street	Avenue X
240th Street	Canarsie
Corona	Coney Island
Livonia	Concourse
Mosholu	East New York
Westchester	Fresh Pond
	Jamaica
	Linden
	Pitkin
	Rockaway Park
	Stillwell

Source: Department of Subways

Table 9
Bus Facilities and Equipment - Fall 2012

Category	Description	Year	Quantity
Fleet:	NOVA RTS-06	1996	110
	NOVA RTS-06	1998/99	669
	MCI	1999	57
	New Flyer Low Floor CNG	1999	54
	Orion - Orion V	1999	324
	MCI	2000	98
	New Flyer (Articulated)	2000	123
	MCI	2001	69
	MCI	2002	119
	New Flyer (Articulated)	2003	259
	Orion - Orion VII CNG	2003	125
	Orion - Orion VII CNG	2004	135
	Orion VII Hybrid	2004	125
	Orion VII Hybrid	2005	200
	Orion VII Hybrid	2006	100
	Orion VII Hybrid	2007	116
	MCI	2007	30
	MCI	2008	19
	Orion VII Hybrid NG	2008	160
	Orion VII Hybrid NG	2009	540
	Orion VII Hybrid NG	2010	47
	NOVA LF (Articulated)	2010	90
	NOVA LF (Articulated)	2011	95
	Orion 40LF	2011	90
	NOVA 40LF	2011	90
	New Flyer LF CNG	2011	27
	New Flyer 40LF	2011	88
	Prevost	2012	90
	New Flyer LF CNG	2012	186
	NOVA LF (Articulated)	2012	109
	Total Active Passenger Buses		4,344
Facilities:	Depots		20
	Base Shops/Other Shops (Mtc. Bldgs.)		2/2
	Bus Stops		12,056
Routes:	Local Bus		190
	Express Bus		29
	SBS		5

Source: Department of Buses, Division of Operations Planning (bus stops and routes only)

Table 10
Bus Depots by Division - Fall 2012

Division	Depot	Operator
Bronx	Eastchester	MTA Bus Company
	Gun Hill	NYC Transit
	Kingsbridge	NYC Transit
	West Farms	NYC Transit
	Yonkers	MTA Bus Company
Brooklyn	East New York	NYC Transit
	Fresh Pond	NYC Transit
	Flatbush	NYC Transit
	Grand Avenue	NYC Transit
	Jackie Gleason	NYC Transit
	Ulmer Park	NYC Transit
Manhattan	126th Street	NYC Transit
	Tuskegee Airmen	NYC Transit
	M.J. Quill	NYC Transit
	Manhattanville	NYC Transit
Queens - North	Casey Stengel	NYC Transit
	College Point	MTA Bus Company
	Jamaica	NYC Transit
	LaGuardia	MTA Bus Company
	Queens Village	NYC Transit
Queens - South	Baisley Park	MTA Bus Company
	Far Rockaway	MTA Bus Company
	JFK	MTA Bus Company
	Spring Creek	MTA Bus Company
Staten Island	Castleton	NYC Transit
	Charleston	NYC Transit
	Meredith Avenue	NYC Transit
	Yukon	NYC Transit

Source: Department of Buses

Table 11
Base Shop Characteristics - Fall 2012

Base Shop Facility	Yr. Built	Sq. Feet	Activity
Grand Avenue	2007	500,000	Revenue vehicle maintenance, engine and body repair, overhauls, upgrades and unit rebuilding
Zerega Avenue	2001	247,000	Revenue vehicle maintenance, engine and body repair, overhauls, upgrades and unit rebuilding
Crosstown Paint Shop	1946	17,000	Vehicle painting
Ninth Avenue Unit Shop	N/A	15,000	Rebuild revenue vehicle components

Source: Department of Buses

Table 12
Staten Island Railway Performance Targets

	Goal 2011	Act. 2011	Actual 1st Half 2012	Proj. 2012	Proj. 2013	Proj. 2014	Proj. 2015	Proj. 2016	Proj. 2017
Mean Distance Between Failures (miles)	180,000	201,522	72,145	180,000	180,000	180,000	180,000	180,000	180,000
On-Time Performance (%)	95.00%	95.10%	96.10%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%

Cleaning

- St. George Terminal: regular cleaning (cleaning station houses, emptying trash receptacles) twice daily (station houses are swept and mopped daily), heavy duty cleaning (steam cleaning outside station houses and platform) every 1.5 months.
- Other stations: regular cleaning each weekday, heavy duty cleaning every two months.
- Graffiti removal within 48 hours of receipt of complaint.
- Stations inspected weekly.
- All passenger cars cleared of litter, mopped, and seats cleared of debris on a daily basis.
- All passenger cars undergoing an exterior car wash monthly between the beginning of May and the end of October.
- All passenger cars undergo an Extraordinary Interior Cleaning (washing, scrubbing, wiping, and polishing) every 45 days.

Air Conditioning

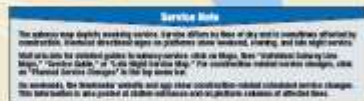
- Air conditioning equipment is inspected on a 66-day cycle.
- Air conditioning condensers are washed out every May, June, July, and August.
- Air filters are replaced every 66 days.

Source: Staten Island Railway

Table 13
Staten Island Railway Facilities and Equipment - Fall 2012

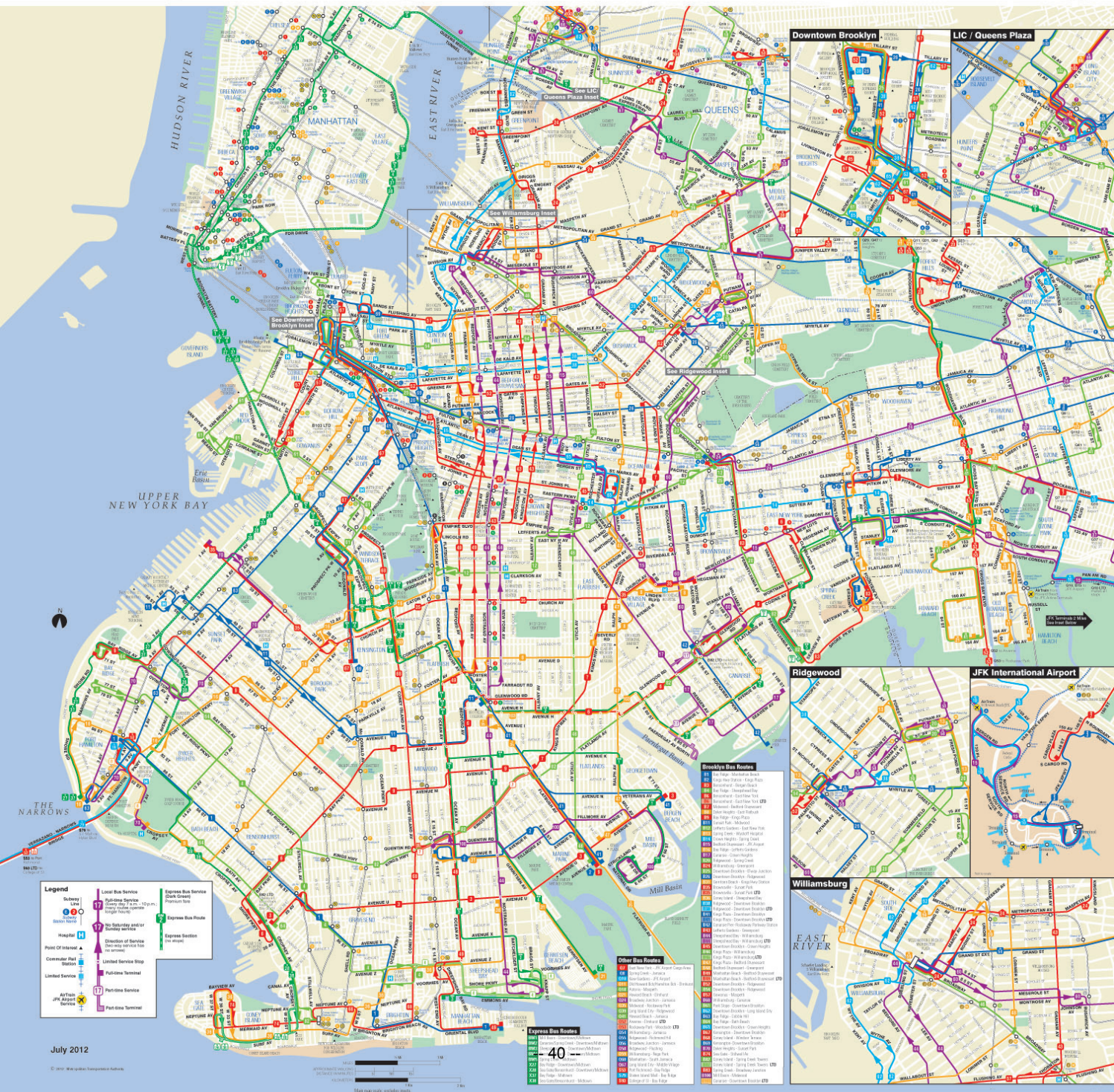
<u>Category</u>	<u>Description</u>	<u>Quantity</u>
Fleet:	Passenger Cars	63
	Work Train Cars	14
	Locomotives	4
	Stations	23
Infrastructure:	Track	28.6
	Bridges	32
	Overpasses	32
	Switches	84
	Power Substations (Enclosures)	5
	St. George	
	Old Town	
	Grant City	
	Eltingville	
	Atlantic	
	Circuit Breaker Houses (Enclosures)	5
	Clifton	
	Dongan Hills	
	New Dorp	
	Prince's Bay	
	Tottenville	
Facilities:	Car Maintenance Shops	1

Source: Staten Island Railway





Brooklyn Bus Map



Downtown Brooklyn

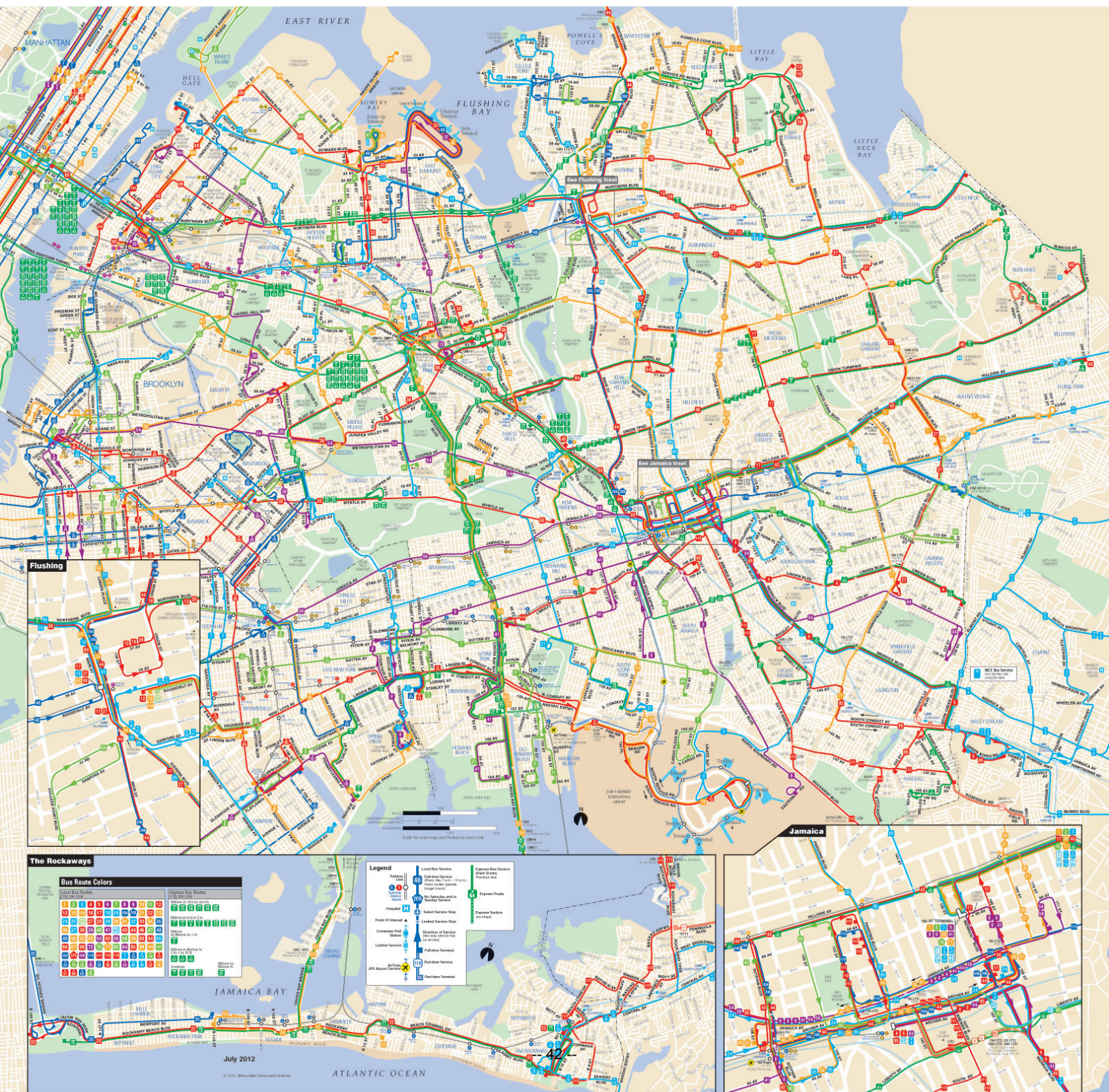
LIC / Queens Plaza

Ridgewood

JFK International Airport

Williamsburg





MTA Long Island Rail Road

Service Standards

Vehicle Load Factor

Vehicle load or load factor is a ratio of the number of seats on a vehicle to the number of passengers. Load factor is an indicator of the extent of likely overcrowding or the need for additional vehicles. It is also a means to determine whether the level of service at a particular time is adequate to assure a level of service deemed appropriate for the railroad.

The Long Island Rail Road's load factor standards are designed to be responsive to passenger demands. The average seating capacity of one train car is 120 passengers for M-3 electric cars and 106 passengers for M-7 electric cars. Cars within the LIRR electric fleet operate as married pairs; consists are either 6, 8, 10, or 12 cars. For diesel bi-level coaches, the average seating capacity is 140 passengers per car.

A review of train size is initiated when train loading exceeds or falls below established load point factors. The LIRR goal is to provide adequate seating on trains at all times. 100% of trains should operate with their full complement of cars. The Long Island Rail Road monitors and reviews vehicle load data on an on-going basis and, wherever feasible, reallocates human and equipment resources to meet passenger demand.

The chart below displays the passenger load point at which the Long Island Rail Road considers adding or removing a pair of cars from the consist. The decision to alter the number of cars in the consist is subject to the following factors: finite fleet size (and the inability to procure a small number of cars), car availability, yard capacity, platform length and constraints on platform extension, etc. Where equipment is available, trains between 90-95% seating capacity will be considered for an additional pair of cars. The existence of standees, or the fact that the number of passengers falls into the range listed below, does not guarantee that cars will be added to that train.

<i>Electric</i>			Customer Load Range			
Seating Capacity			Peak		Off Peak	
Cars	M-3	M-7	Reduce Cars	Increase Cars	Reduce Cars	Increase Cars
6	690	636	NA	604	NA	572
8	920	848	541	806	509	763
10	1150	1060	721	1007	678	954
12	1380	1272	901	NA	848	NA

Diesel		Customer Load Range			
	Seating Capacity	Peak		Off Peak	
Cars	C-3	Reduce Cars	Increase Cars	Reduce Cars	Increase Cars
1	140	119	126	112	119
2	280	119	252	112	238
3	420	238	378	224	357
4	560	357	504	336	476
5	700	476	630	448	595
6	840	595	756	560	714
7	980	714	882	672	833
8	1120	833	1008	784	952
9	1260	952	1134	896	1071
10	1400	1071	1260	1008	1190
11	1540	1190	1386	1120	1309
12	1680	1309	NA	1232	NA

Service Frequency/Vehicle Headway

Service Frequency measures how often a train is scheduled to stop at a particular station. Service frequency is based upon the station's Level of Service. When determining service frequency, availability of equipment, track scheduling and operating resources are also taken into account.

The LIRR's Headway standards are based upon station Level of Service. Maximum vehicle headway differs for peak and off-peak period, and weekends. The LIRR considers morning peak to be trains arriving at western terminals between 6:00 am and 10:00 am weekdays, and the evening peak to be trains departing western terminals between 4:00 pm and 8:00 pm weekdays.

The Station Levels of Service are a measure of the number of customers that utilize a particular station each weekday. The Long Island Rail Road uses Station Levels of Service to allocate the appropriate level of service for such areas as station maintenance, station amenities, schedule frequency, and other areas. Station Levels of Service provide an equitable way of allocating operating and capital resources within the LIRR. Stations Levels of Service are based upon the data obtained from the most recent station-by-station boarding counts.

- Level 1: More than 6,000 customers per day
- Level 2: 2,000-6,000 customers per day
- Level 3: 1,000-1,999 customers per day
- Level 4: Fewer than 1,000 customers per day.

Commuter Zone Level of Service*

The chart below presents the maximum vehicle headway by station level of service and time of day for stations within the LIRR Commuter Zone:

<u>Level of Service</u>		<u>Weekday Peak</u>	<u>Off-Peak</u>	<u>Weekend</u>
Level 1	**	20 minutes	60 minutes	60
minutes				
Level 2		30 minutes	60 minutes	60
minutes				
Level 3		45 minutes	90 minutes	90
minutes				
Level 4		60 minutes	120 minutes	120
minutes				

* These standards do not apply for the time period of midnight to 6 am.
Commuter Zone includes all stations in Zones 1-12. Zone 14 stations, Mets-Willets Point and Belmont are considered outside of the Commuter Zone.

** Due to infrastructure constraints, Huntington and Ronkonkoma do not provide peak service at this headway. These constraints include: single track territory East of Farmingdale, existence of only two tracks West of Hicksville and lack of a yard East of Huntington. Hunterspoint Avenue station does not provide service at Level 1 headways because this station is unique, with only weekday peak-period, peak-direction service.

Hours of Operation

Service to most LIRR stations is provided 24 hours a day, seven days a week.

Reliability/Schedule Adherence

At the Long Island Rail Road, a train is recorded as on time if it arrives at its final destination within 5 minutes and 59 seconds of its scheduled arrival. 100% of trains operated should complete their assigned trips. Unless noted on passenger timetable, trains will not depart early from passenger stations where they are scheduled to receive passengers.

Vehicle Assignment

Vehicle assignment refers to the process by which transit vehicles are assigned to routes throughout the system.

Electric Multiple Unit (EMU) passenger cars are operated on all electrified branches. In the LIRR territory that is not electrified, diesel locomotive hauled bi-level coaches are utilized. The LIRR's diesel fleet includes Diesel/Electric and Dual Mode locomotives. The Dual Mode equipment is capable of utilizing electric traction power and operating through the East River tunnels into Penn Station, thus providing a "one seat ride" from diesel territory to Penn Station.

Both electric and diesel cars are assigned as required without regard to car age. Electric and diesel cars have the same amenities – air conditioning, heating, and restrooms (in odd-numbered cars) for passenger comfort and convenience.

Cars are not assigned to specific routes or branches within the territory they operate in (diesel or electric), but are cycled from branch to branch and rotated on a car maintenance basis. To achieve optimum car utilization efficiency of both electric and diesel equipment, cars are cycled from branch to branch.

Mechanical System

Interior and exterior lights, doors, electronic signs/interior automatic station annunciator, and PA system should be operational on all trains.

Heating Ventilation Air Conditioning {HVAC} System

At least 97% of cars entering passenger service should have heating, ventilation and air conditioning systems which provide an interior temperature between 64 and 78 degrees Fahrenheit.

Cleanliness Standards

Rolling Stock

All train sets prior to entering morning peak service will undergo the following: Floors are cleared of litter and mopped, seats cleared of debris, bathrooms cleaned and stocked.

Except if the outside temperature is 38 degrees F or below, all diesel coaches will undergo an exterior wash at least once every two weeks and all EMU cars will undergo an exterior wash at least once every three weeks.

MU cars will undergo an Extraordinary Interior Cleaning (EIC) once every 60 days, diesel coaches once every 90 days.

All Multiple Unit (MU) cars equipped with toilets will have the system serviced once during a 5-day period of active service; C-3 coaches are also serviced once every 5 days.

Extraordinary Interior Cleaning (EIC) is the highest level of cleaning performed on the LIRR and involves washing, scrubbing, wiping and polishing of the interior of the car.

Lay-up cleaning, which is done in the yards, is the most comprehensive effort of the railroad's daily cleaning programs. It consists of complete removal of all debris, a full sweep of the entire car, a complete mopping of entire car and full cleaning of bathroom compartment. In addition, the Motorman's Cab receives a complete cleaning (swept and mopped) and windshield of the cab is cleaned on the East and West ends of the train. The LIRR goal is to provide this type of cleaning to all in-service cars prior to the morning rush period. The LIRR's other daily cleaning activity, which is performed at terminal stations, involves daily upkeep cleanings throughout the day including sweep/spot mopping, sweep only, pickups, etc.

Station Appearance

The following matrix defines minimum maintenance service provided by the LIRR based on the level of customer use:

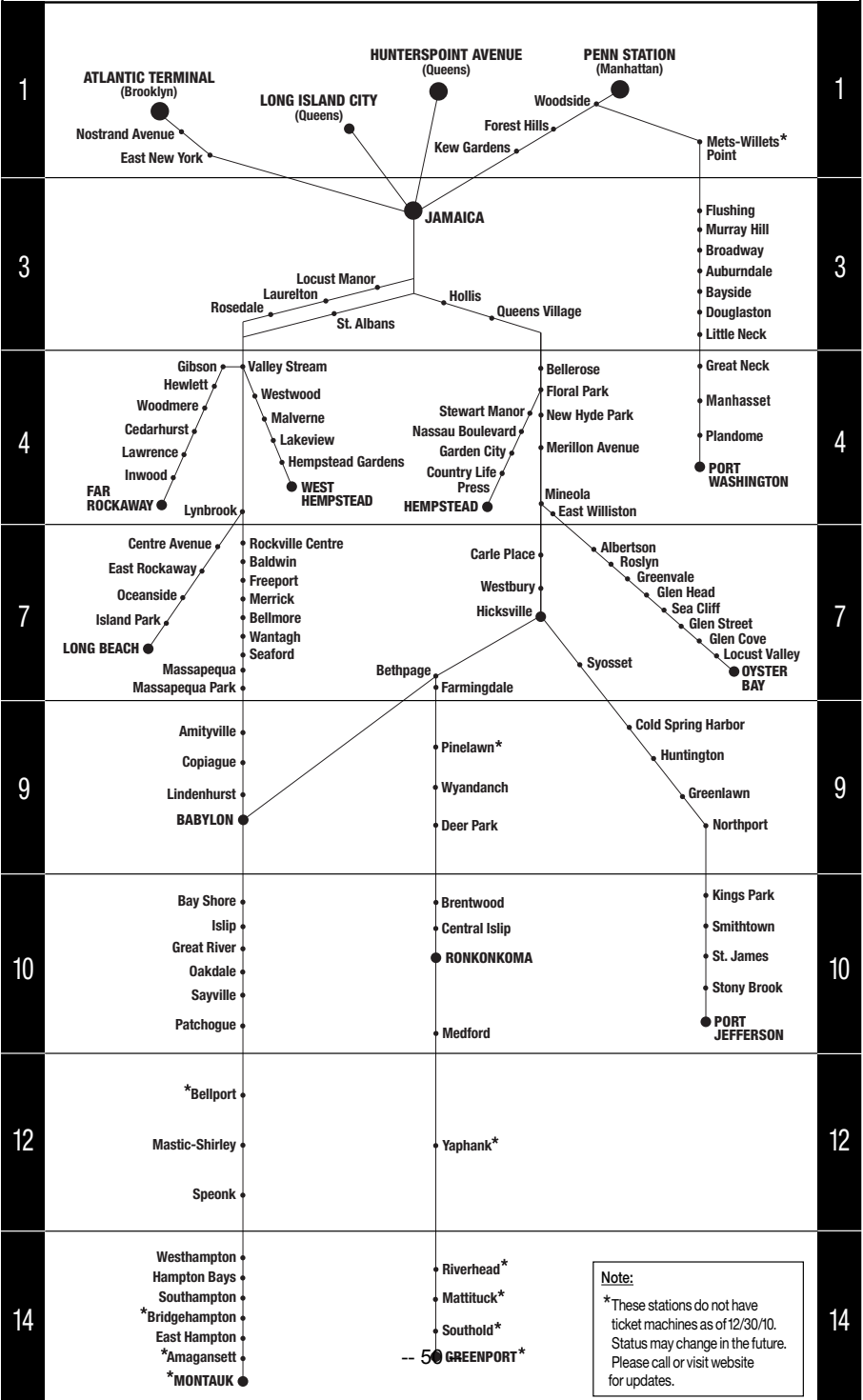
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Level 4</u>
Regular Station Cleaning	Twice Daily	Daily	Daily	Alternate Days
Heavy Duty Cleaning	1½ Months	3 Months	4 Months	As needed
Graffiti Removal	48 Hours	72 Hours	96 Hours	96 Hours
Station Painting	4 Years	6 Years	8 Years	10 Years
Station Safety Audit	6 times/yr	4 times/yr	3 times/yr	2 times/yr

Notes:

1. Regular station cleaning includes cleaning station buildings, waiting rooms, passenger shelters, and platforms to a litter-free level of cleanliness; emptying trash receptacles and sweeping, mopping, and stocking public lavatories, where provided.
2. Heavy Duty cleaning includes hot water pressure washing of station structures, platforms, shelters, and high platform waiting rooms, as weather conditions permit.
3. "Graffiti removal" refers to the response time from receipt of complaint to actual removal of graffiti.
4. Obscene graffiti is removed within 18 hours of notification.
5. Branch Line Managers submit work orders to Engineering for any supplemental painting and repair that needs to be undertaken.
6. Branch Line Managers and Terminal Managers conduct Station Safety Audits, inspecting every aspect of the station environment. In addition, System Safety, Risk Management, and the Structures Division of the Engineering Department also conduct station inspections.

LIRR Stations and Fare Zones

Direct Fares Only
Effective Date: December 30, 2010



Note:
*These stations do not have ticket machines as of 12/30/10. Status may change in the future. Please call or visit website for updates.

MTA Metro-North Railroad

Vehicle Load Factor Analysis

Metro-North is committed to the goals of providing a seat for every customer and increasing the fare operating ratio. A primary method of controlling costs without negatively impacting service, and thereby achieving a higher fare recovery ratio, is reducing car miles. In order to provide the framework to accomplish the above goals, loading standards were established. Vehicle occupancy or load factor is a percentage ratio of a train's maximum ridership load divided by its seating capacity. Within operational constraints, (e.g., required short equipment turns, which often dictate that extra equipment be operated on certain trains) these loading standards are used to determine equipment assignments on all Metro-North trains and may result in either lengthening or shortening of train consists. A consist is the equipment type and number of cars that are scheduled to make up an individual train.

Metro-North's loading standards establish criteria for lengthening or shortening trains. Current Metro-North loading standards for all Harlem, Hudson and New Haven Line trains during the time periods outlined below are as follows:

Maximum Recommended Occupancy for:

	<u>Lengthening</u> <u>Trains</u>	<u>Shortening</u> <u>Trains</u>
¹ All Peak and Reverse Peak New Haven	95%	95%
¹ Off-Peak Weekday and Reverse Peak H/H	85%	85%
Weekend	75%	75%

These standards are applied against peak trains consisting of five (5) to twelve (12) cars (based on ridership demand). The maximum load count is calculated based on when the most riders are on board a train during its scheduled run. For example, the maximum load point for most peak service trains is into Grand Central Terminal in the morning and out of Grand Central Terminal in the evening; in some instances, higher ridership occurs at intermediate stations before arriving in GCT.

Service Frequency/Vehicle Headway

Metro-North's long-term Service Plan outlines the frequency of service for station groupings and line segments for current and future train service based on existing and projected ridership. Metro-North designates the morning (AM) Peak service to be weekdays inbound from 5:00a.m. to 10:00a.m. The evening (PM) Peak is defined to be weekdays outbound from 4:00p.m. to 8:00p.m. This is based on Grand Central Terminal arrival and departure times. During the morning and evening Peak Periods, Metro-North's headway between trains is approximately 20-30 minutes. Branch line service during the peaks is less frequent. Off-peak and weekend service frequency is typically 30-60 minutes with the exception of some branch lines (e.g., Danbury, Waterbury and Wassaic) which operate less frequently.

Vehicle Assignment

¹ Off-peak weekday and reverse peak consists are largely determined by peak cycle requirements.

Metro-North operates both diesel and electric powered vehicles. The primary criterion used by Metro-North in assigning transit vehicles is based on the type of power required for a particular line segment. Diesel locomotives are used on non-electrified territory (Upper Hudson, Wassaic, Danbury and Waterbury service). The Bombardier coaches are used on diesel trains. These coaches have been purchased during the past 25 years (an initial order of end door cars designated push-pull (PP) and two subsequent orders of center door (CD) cars).

Metro-North assigns electric powered vehicles (multiple unit cars – M-2, M-3, M-4, M-6 and M-7 cars) to those line segments that are electrified (third rail/catenary).

Metro-North developed the loading standards discussed above and continually monitors ridership patterns to determine the assignment of electric vehicles and diesel coaches to individual trains.

Mechanical System

Interior and exterior lights, doors, electronic signs/voice annunciator, and PA system should be operational on all trains.

Air Conditioning Standards

The Air Conditioning Standard for in-service cars is a minimum of 98% functional at all times.

Cleanliness Standards

Rolling Stock

Extraordinary Interior Cleaning (EIC) is the highest level of cleaning performed on Metro-North's fleet and involves washing, scrubbing, wiping and polishing of the interior of the car.

Layover Cleaning is the most comprehensive effort of Metro-North's daily cleaning programs. It consists of complete removal of all debris, a full sweep of an entire car, a complete mopping of the entire car and full cleaning of bathroom compartments. The goal is to provide this type of cleaning to all in-service cars prior to the morning rush period.

Turnaround Cleaning shall be performed after every run, providing the car stays at the terminus for more than one (1) hour. This cleaning includes the removal of debris, spot mopping, wiping down of bathrooms and resupplying as necessary.

Trains will be **Quick Cleaned** after every run when they stay at their terminus for less than one (1) hour. No debris should be visible in the car while walking down the aisle, under the seats or in the toilet compartment. All newspapers will be removed and placed in recycling bins.

All cars equipped with recirculating toilets will have the toilets serviced at least once every twenty-four (24) hours. All cars equipped with toilets utilizing a holding tank are to be serviced at least every forty-eight (48) hours.

Stations

All Metro-North stations are cleaned daily. Work includes the waiting room, restrooms, platforms and recycling containers.

E-Cleaning is on a 45-day cycle and is performed Monday to Friday. E-Cleaning is an extraordinary cleaning consisting of the following:

- 1 Power Wash all platforms and canopies (where applicable).
- 2 Power wash and deodorize overpasses; including walls, stairways and drains.
- 3 Power wash and deodorize underpasses, including walls, stairways and drains.
- 4 Power wash and squeegee exterior windows (where possible).
- 5 Power wash and squeegee all shelter windows.
- 6 Remove graffiti and dirt from all station areas: buildings, walls, windows, etc.
- 7 Clean all signage, kiosks and recycling containers.
- 8 Clean and deodorize waiting rooms and customer areas.
- 9 Clean and deodorize bathrooms.
- 10 Strip and wax waiting room floors and hallways.
- 11 Polish all stainless steel elevators.
- 12 Wash and deodorize elevator floors.
- 13 Wash and squeegee interior windows, ledges and sills.
- 14 Clean and polish all woodwork.
- 15 Clean and polish tile.
- 16 Police all areas around station buildings, platforms and stairs.
- 17 Pull trash as needed.
- 18 Trim all overgrowth of bushes and weeds around station buildings, platforms and customer areas.

