

Metropolitan Expressway Co., Ltd.
Corporate profile

2014



Networking People, Communities, and Daily Lives



Greetings

We at Metro Expressway Company Limited (Shutoko) are involved day and night in the construction, upkeep and management of the Metropolitan Expressway, one of the metropolitan area's major arteries.

Today, the Metropolitan Expressway extends more than 300 km and accommodates some 950,000 vehicles per average full day; so, to ensure continuous safety and satisfaction for all our customers, we make it our mission to always look at things from the driver's perspective in order to offer high-quality service.

Moreover, with approximately five times more heavy vehicles using our expressway network than those on local roads in the 23 wards in Tokyo, our infrastructure is severely tested in terms of wear and tear – therefore, more than before, we are working on a diverse range of tasks, such as thoroughly inspecting and repairing facilities, embarking on large-scale renewals and overhauls of aging expressway sections as well as organizing the network, combating traffic jams and implementing road safety measures to ensure safe, comfortable driving for all our customers.

Shutoko pledges to continue uniting people, places and lifestyles in the metropolitan area to contribute to the creation of an affluent and comfortable society. To that end, we hope you will continue to understand and support us. Thank you.



President

菅原 秀光

Hideo Sugawara



Corporate Profile (as of June 27, 2014)

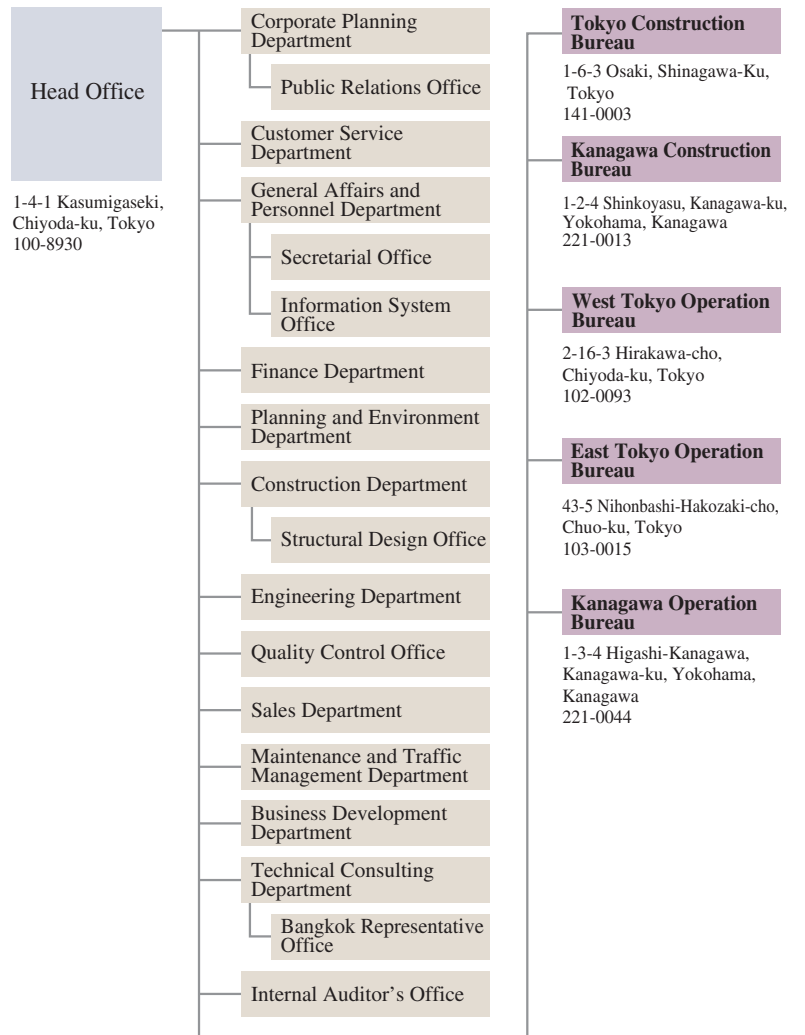
Business Name: Metropolitan Expressway Co., Ltd.
Representative: President Hideo Sugawara
Location: 1-4-1 Kasumigaseki, Chiyoda-ku, Tokyo
Date of Establishment: October 1, 2005
Capital: ¥13.5 billion
Summary of Business: <ul style="list-style-type: none"> • New construction, renovation, maintenance, repair, post-disaster restoration, and other express highway management and coordination work • New road construction, renovation, maintenance, repair, and other work on consignment from the national government, local governments, and other entities • Operation, management, and other aspects of parking lots, expressway rest areas, and rental facilities located under elevated sections of highways.
Employees: 1,068 people (as of March 31, 2014)

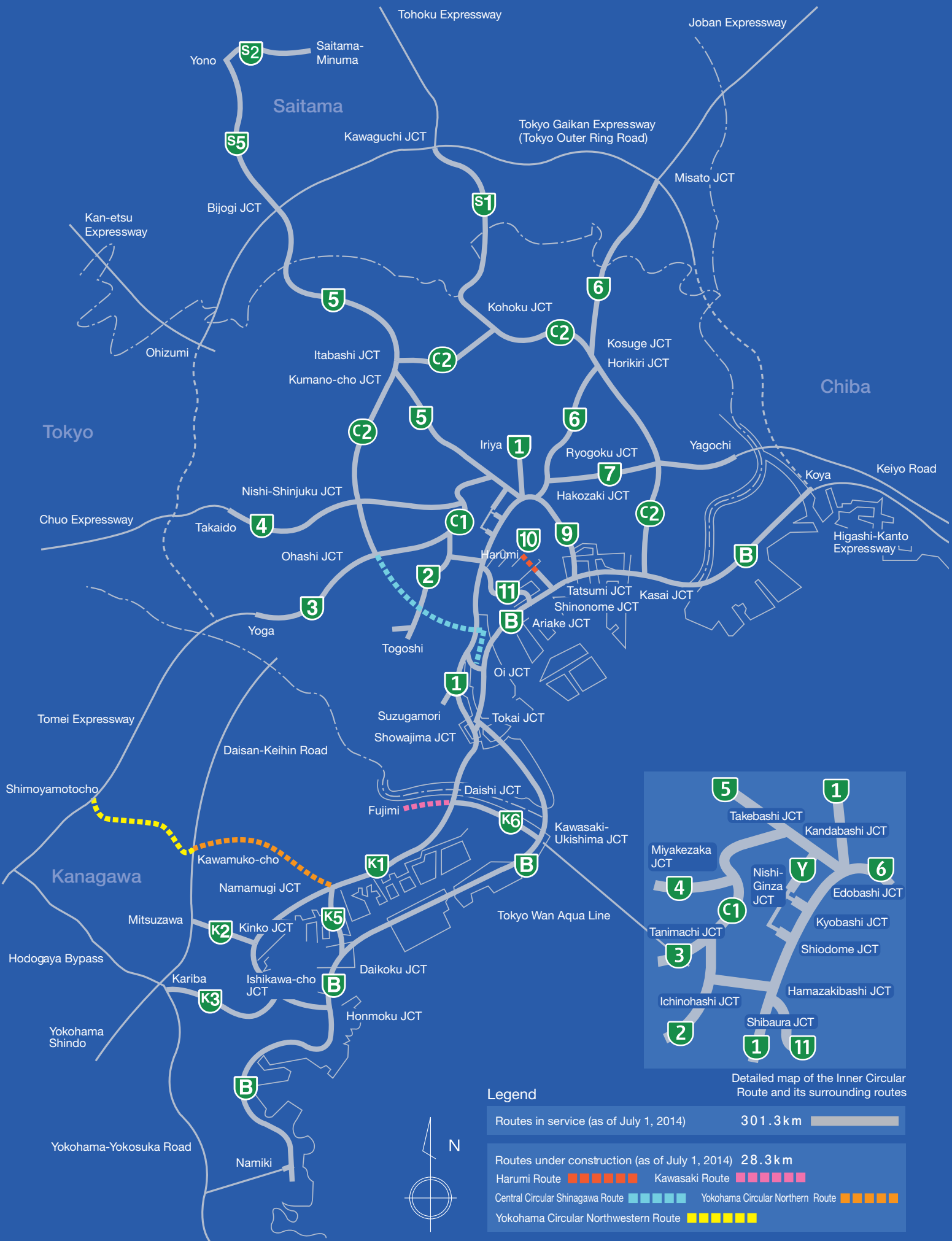


Triangular Stream Logo

This logo symbolizes the Metropolitan Expressway network that spreads out in three different directions from Tokyo to encompass Kanagawa, Chiba and Saitama prefectures. It also represents the company's stance with regard to supporting people, communities and daily lives through network creation.

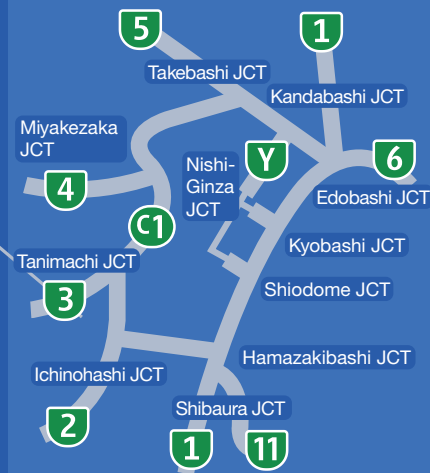
Organization (as of July 1, 2014)





Legend

- Routes in service (as of July 1, 2014) 301.3 km
- Routes under construction (as of July 1, 2014) 28.3 km
- Harumi Route
- Kawasaki Route
- Central Circular Shinagawa Route
- Yokohama Circular Northern Route
- Yokohama Circular Northwestern Route



Detailed map of the Inner Circular Route and its surrounding routes

NETWORK

Metropolitan Expressway Network

Route Mark	Route Name	Segment	Opening Date	Extension
C1	Inner Circular Route		July 4, 1967	14.8
C2	Central Circular Route	Ohashi JCT~Kasai JCT	March 28, 2010	37.5
1	Route 1(Ueno Line)	Edobashi JCT~Iriya	May 31, 1969	4.4
1	Route 1(Haneda Line)	Hamazakibashi JCT~Haneda	December 21, 1966	13.8
2	Route 2 (Meguro Line)	Ichinohashi JCT~Togoshi	September 30, 1967	5.9
3	Route 3 (Shibuya Line)	Tanimachi JCT~Yoga	December 21, 1971	11.9
4	Route 4 (Shinjuku Line)	Miyakezaka JCT~Takaido	May 18, 1976	13.5
5	Route 5 (Ikebukuro Line)	Takebashi JCT~Bijogi JCT	October 26, 1993	21.5
6	Route 6 (Mukoijima Line)	Edobashi JCT~Horikirir JCT	March 30, 1982	10.5
6	Route 6 (Misato Line)	Kosuge JCT~Misato JCT	January 24, 1985	10.6
7	Route 7 (Komatsugawa Line)	Ryogoku JCT~Yagochi	March 21, 1971	10.4
9	Route 9 (Fukagawa Line)	Hakozaki JCT~Tatsumi JCT	February 5, 1980	5.3
10	Route 10 (Harumi Line)	Toyosu~Shinonome JCT	February 11, 2009	1.5
11	Route 11(Daiba Line)	Shibaura JCT~Ariake JCT	August 26, 1993	5.0
Y	Yaesu Route	Kandabashi JCT~Shiodome JCT	February 15, 1973	1.9
B	Bay Shore Route	Namiki~Koya	October 22, 2001	62.1
	Bay Shore Branch Route	Showajima JCT~Tokai JCT	February 24, 1983	1.9

Route Mark	Route Name	Segment	Opening Date	Extension
K1	Route 1 (Yokohane Line)	Haneda~Ishikawa-cho JCT	February 2, 1984	20.1
K2	Route 2 (Mitsuzawa Line)	Kinko JCT~Mitsuzawa	March 7, 1978	2.3
K3	Route 3 (Kariba Line)	Honmoku JCT~Kariba	March 20, 1990	10.2
K5	Route 5 (Daikoku Line)	Namamugi JCT~Daikoku JCT	September 27, 1989	4.6
K6	Route 6 (Kawasaki Line)	Kawasaki-Ukishima JCT~Daishi JCT	October 20, 2010	5.5
S1	Kawaguchi Route	Kohoku JCT~Kawaguchi JCT	September 9, 1987	12.3
S2	Saitama Shintoshin Route	Yono~Saitama-Minuma	August 4, 2006	5.8
S5	Saitama Omiya Route	Bijogi JCT~Yono	May 18, 1998	8.0

Routes in service (as of July 1, 2014) total **301.3km**

Basic Charges for ETC Vehicles

Basic Charge	Vehicle Type Classification	Charging Distances				
		Up to 6.0 km	6.1 km to 12.0 km	12.1 km to 18.0 km	18.1 km to 24.0 km	24.1 km or further
	Standard size car	¥ 510	¥ 610	¥ 720	¥ 820	¥ 930
	Heavy vehicles	¥ 1,030	¥ 1,230	¥ 1,440	¥ 1,650	¥ 1,850

※ If paying by cash, toll charges are ¥930 for a standard size car and ¥1,850 for a heavy vehicle (excluding certain section(s))

Contents

Greetings	1
Corporate Profile/Organization	2
Metropolitan Expressway Network ...	3
Management Plan	5
Developing the Network	9
Maintenance and Management	13
Driving Support	17
Related Businesses	23
Environment	29
Human Resource and Technology	33
Financial Statements	35
Company History	37
Shutoko Group Companies/	
Usage Conditions	38

Management Plan

Fundamental Principle

With safe and smooth metropolitan expressway networks, we connect people, communities and lifestyles within the metropolitan area to contribute to the affluent and comfortable advancement of society.

Management Principles

Customers first

In pursuit of safety and comfort, we provide high-quality services that guarantee customer satisfaction.

Coexistence with local communities

Our goal is to create a better environment and to develop local communities by working together with community members.

Social responsibility

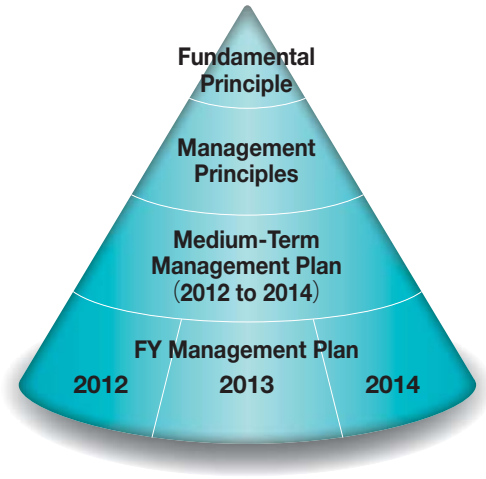
We build relationships of trust with our customers, community members and investors through our strong sense of ethics and high level of transparency.

Autonomous management

We manage our business efficiently and soundly, and aggressively expand our operations into new business fields.

A vibrant work environment for employees

We create a work environment in which our employees are able to develop their own abilities, allowing them to develop a sense of pride and achievement.



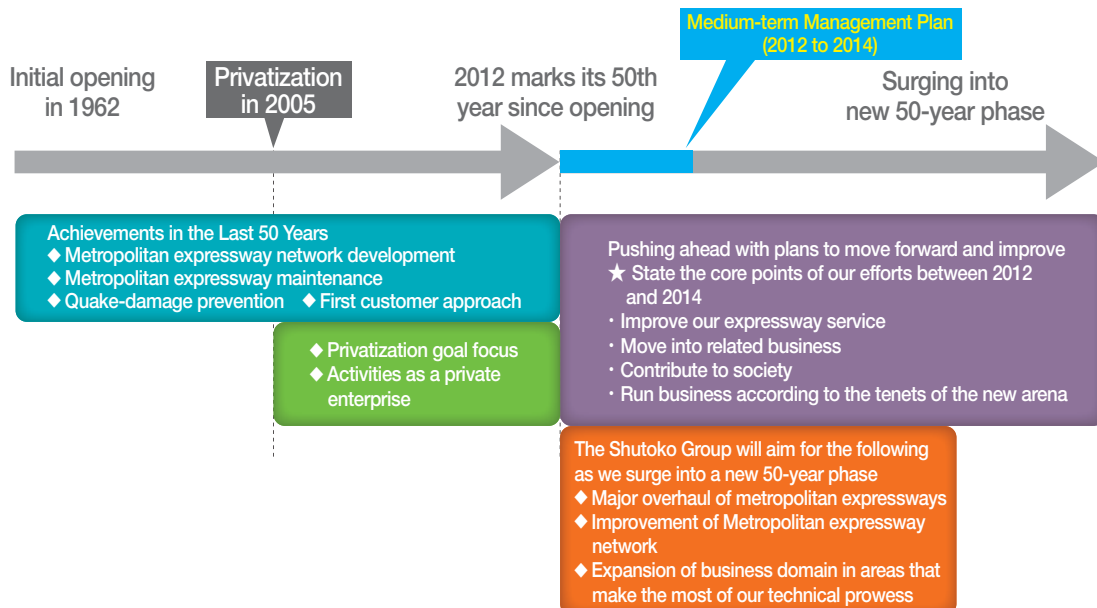
Medium-Term Management Plan (2012 to 2014)

In 2012, more than a half-century since the launch of the first expressway, we have formulated the “Medium-Term Management Plan (2012 to 2014) – Shutoko: Creating expressways for 50 years and launching into a new 50-year phase” as the next new step to be taken.

Challenges in the next 50 years include issues such as how to maintain and improve well developed Metropolitan expressway network, as well as how to develop our refined skills in other fields.

The next three years of this Medium-Term Management Plan will be a crucial starting point for us to confront these issues to find the answers and consolidate our foundations, in order to carve out the path we need to follow with this challenge.

The Shutoko Group will continue to steadily address each of these issues.



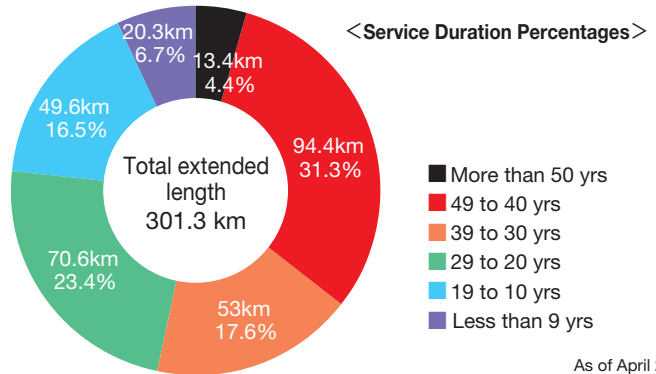
Efforts toward implementing the Large-scale Structural Renewal of the Metropolitan Expressway

Our Status at Present

Progressive aging

■ **Approximately 50% of routes have been in use for more than 30 years**

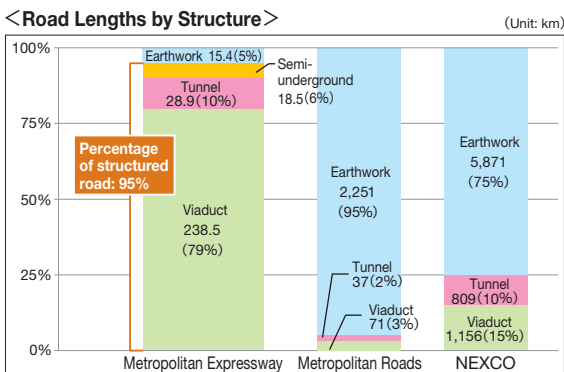
Of the route network extending about 300 km, some 40% (approximately 110 km) has been in service for more than 40 years while some 50% (approximately 160 km) has been in service for 30 years, which means the expressway is getting old.



Extremely detailed maintenance management is required

■ **High Percentage of Structured Expressway**

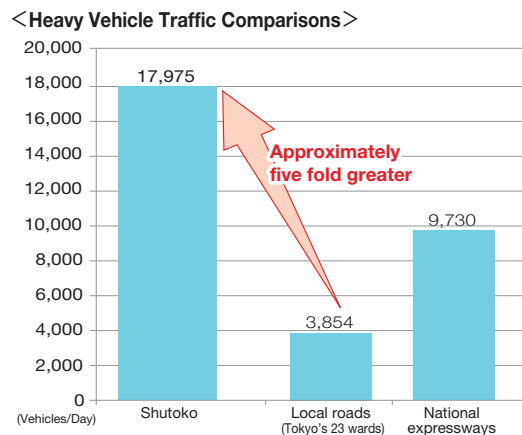
Some 95% of the Metropolitan Expressway (Shutoko) is taken up by structures requiring extremely detailed maintenance, such as viaducts and tunnels, etc., which is a percentage markedly more than other roads.



Shutoko: As of April 2012
 Metropolitan roads: As of April 2007 (according to homepage of Tokyo Metropolitan Government Bureau of Construction)
 NEXCO: As of April 2012 (only national expressways)

Harsh Usage Status

Shutoko is exposed to harsh treatment with a through-the-day average of some 950,000 vehicles using it every day (FY2013), and heavy vehicle traffic reaching five times that of the heavy vehicles on the roads of Tokyo's 23 wards.



Source: Road Traffic Census (2010)
 Spot checks of heavy vehicle traffic volume on any given weekday for Shutoko, local roads and national expressways
 (Figures derived by dividing total of heavy vehicle traveler kilometers over 24 hours on a weekday by overall road length)

Inspections and Repairs

Accurate inspections and repairs are the keynotes to ensuring safety and peace of mind

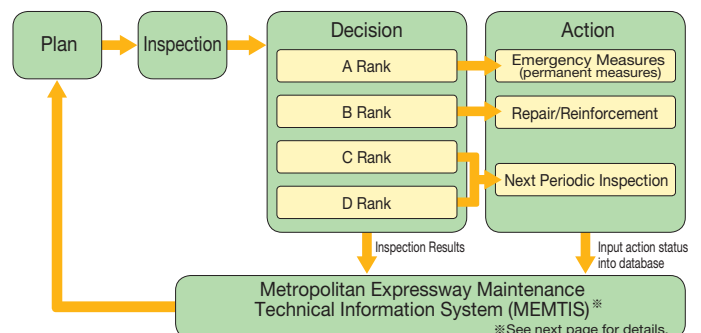
We steadily address keynote areas of inspection and repairs of the Metropolitan Expressway (Shutoko) to ensure safety and satisfaction. Inspections enable us to discover damage of expressway facilities as quickly as possible and, based on those previous discoveries, we can decide how to implement repairs, and organize a planned repair schedule.

Repair Decisions

Damage discovered in inspections is divided into four ranks from A to D according to extent of damage.

Also, inspection results are fed into a database to ensure a record of inspections and ensure that repairs and reinforcement work do not get overlooked.

A Rank	This damage requires urgent action (risk of third party getting injured)
B Rank	This damage requires planned repairs
C Rank	No loss of performance and damage is only slight
D Rank	There is no damage (inspection is recorded)



■ Implementing Planned Repairs

For damage discovered by inspection, types that could affect the overall structure of the road and/or those that represent a risk of injury to third parties (A rank damage) are immediately and permanently dealt with to ensure safety. Damage not requiring an immediate response but still requiring repair/reinforcement and/or further investigation (B rank damage) is reviewed to prioritize the order of repair and then planned repairs are implemented. As well as, taking into consideration the affect on traffic from repairs, actual road work is conducted at times when traffic is light, with lane and hard shoulder restrictions put in place, and work conducted within a limited time.



Resurfacing Work



Expansion Joint Replacement



■ Metropolitan Expressway Maintenance Technical Information System (MENTIS) Assisting Decision-Making

The Metropolitan Expressway finds itself in the midst of extensive change due to its structural aging and the diversification of services, demanding an ad hoc approach to maintenance management planning. Therefore, we at Shutoko core our efforts to set targets and implement decision-making on prioritizing work order around technicians who make use of MENTIS to assist them in the decision-making process in order to develop practical and efficient maintenance management plans, which keep the Metropolitan Expressway safe and satisfying as well as to improve customer services.



Patrol Inspections



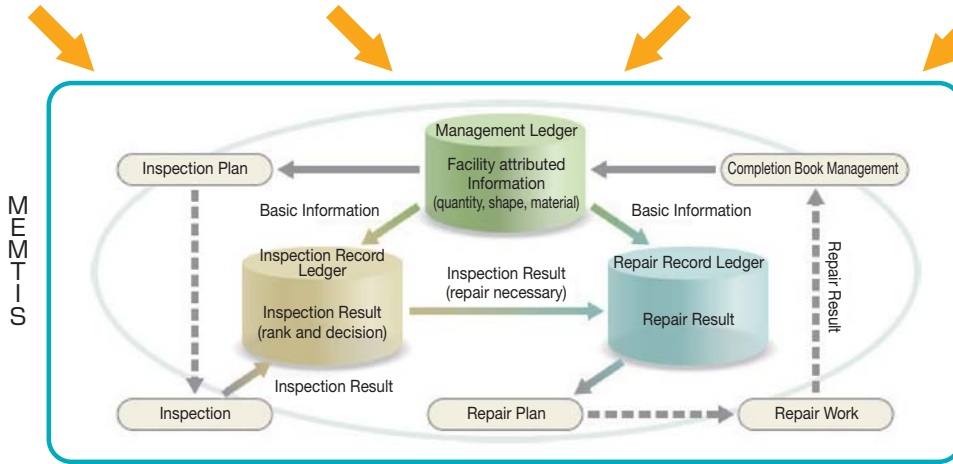
Close Inspections



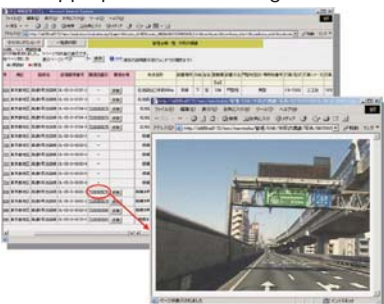
Surface Inspection Vehicle



Inspecting under Viaducts

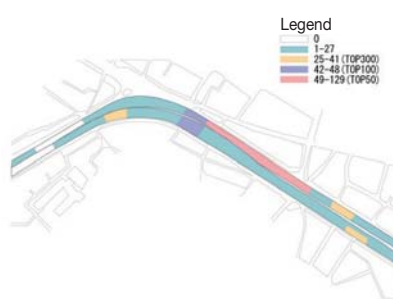


Appropriate Asset Management



Database Example

Structural Soundness Evaluation



Example of Damage Map that makes use of MENTIS

Efficient Repair Plan Development



Crack Repairs using Reinforcing Plating

Renewal Plan

Large-scale renewals and large-scale repairs that ensure safety and satisfaction on Shutoko over prolonged periods

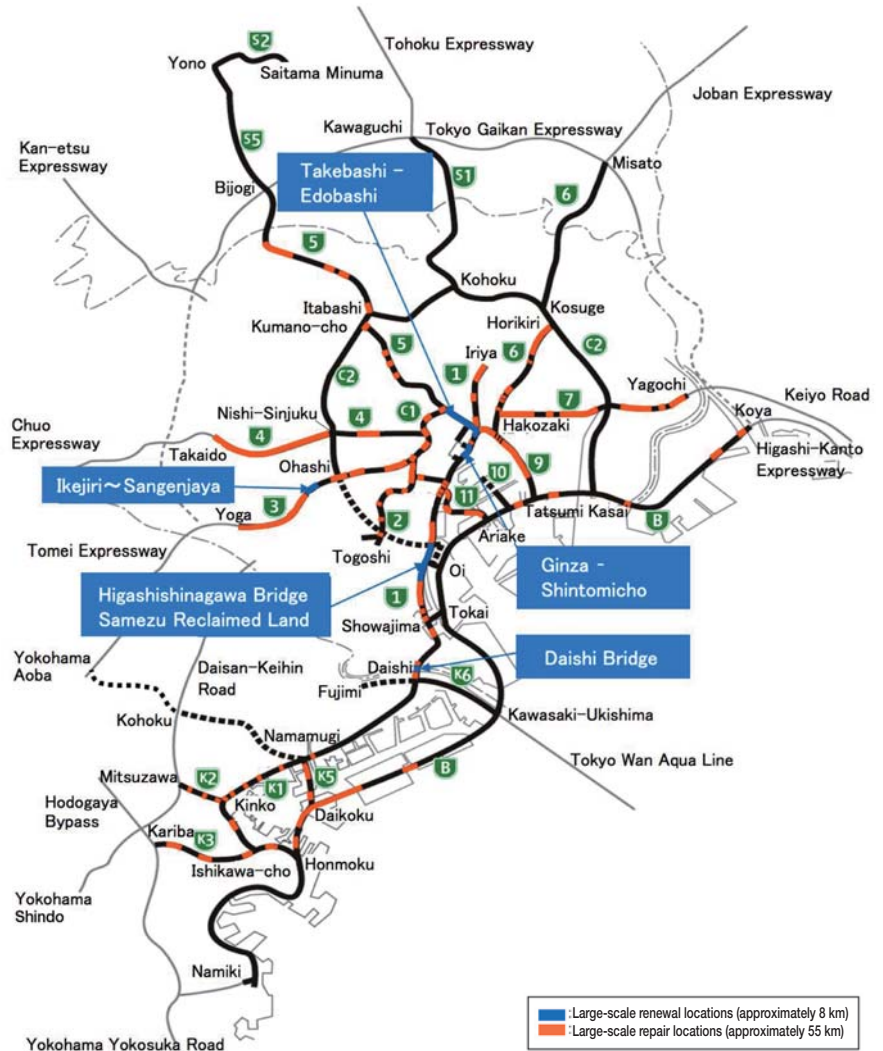
To keep structures on the Metropolitan Expressway safe, we employ various methods to meticulously inspect day and night and then implement repairs according to the results of inspections. However, we are finding more and more damage due to aging and harsh use, and we are at a juncture where we are also discovering critical damage.

Our response at Shutoko is unfolding in ongoing deliberations on an expressway renewal plan as we carefully examine the problems that come with maintenance management of structures and the actual damage status, so as to continue providing a reassuring expressway network built on the foundations of safety, so that Shutoko will still be a highly important and resilient expressway network serving the international city of Tokyo even in a hundred years time.

Shutoko Renewal Plan

At Shutoko, we have taken on board the recommendations (January 15, 2013) made by the research committee tasked with reviewing approaches to large-scale renewal of Shutoko structures, and have deliberated over the expressway renewal plan (large-scale renewals and large-scale repairs).

On December 25, 2013, based on the above recommendations, we again carefully investigated the state of problems and damage related to structures and the maintenance management efforts. In particular, the discovery of major damage. And, as a result of investigating locations that should be renewed or repaired on a large scale, we have put together a plan – “The Metropolitan Expressway Renewal Plan (draft)”.



Example of Large-scale Renewal

Section between No.1 Haneda Route Higashi-Shinagawa Wharf and Samezu Landfill

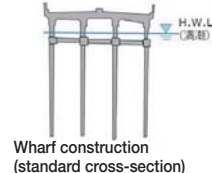
On No. 1 Haneda Route (Higashi-Shinagawa Wharf), which is built over seawater, there is very little space between the sea and the bridge girders, so inspections and repairs are extremely difficult, and various points of large scale damage, including crumbling concrete and corroding metal brought on by the corrosive environment, have been discovered.

Again, on No. 1 Haneda Route (Samezu landfill area), the structure is the equivalent of temporary construction, and is showing major signs of road surface subsidence. Both of these locations require large-scale renewal work due to their damage and to the fact that their structures are not suitable for prolonged use.

<Large-scale Renewal Image>



Higashi Shinagawa Wharf (in use since 1963)



Samezu landfill (in use since 1963)





Developing the Network

Developing the Network and Implementing Countermeasures against Bottlenecks for the Smooth Flow of Traffic in the Metropolitan Area

Pushing Ahead with Congestion Countermeasures to make the Metropolitan Expressway a Smooth, Comfortable Drive

Shutoko Congestion Countermeasures

We have worked to cut down traffic congestion by putting in hardware such as organizing the expressway network on the Central Circular Route and increasing the number of entrance/exit locations, while also implementing general software measures such as the provision of enhanced traffic information, better signs and markings and efforts to reduce tailbacks from roadwork.

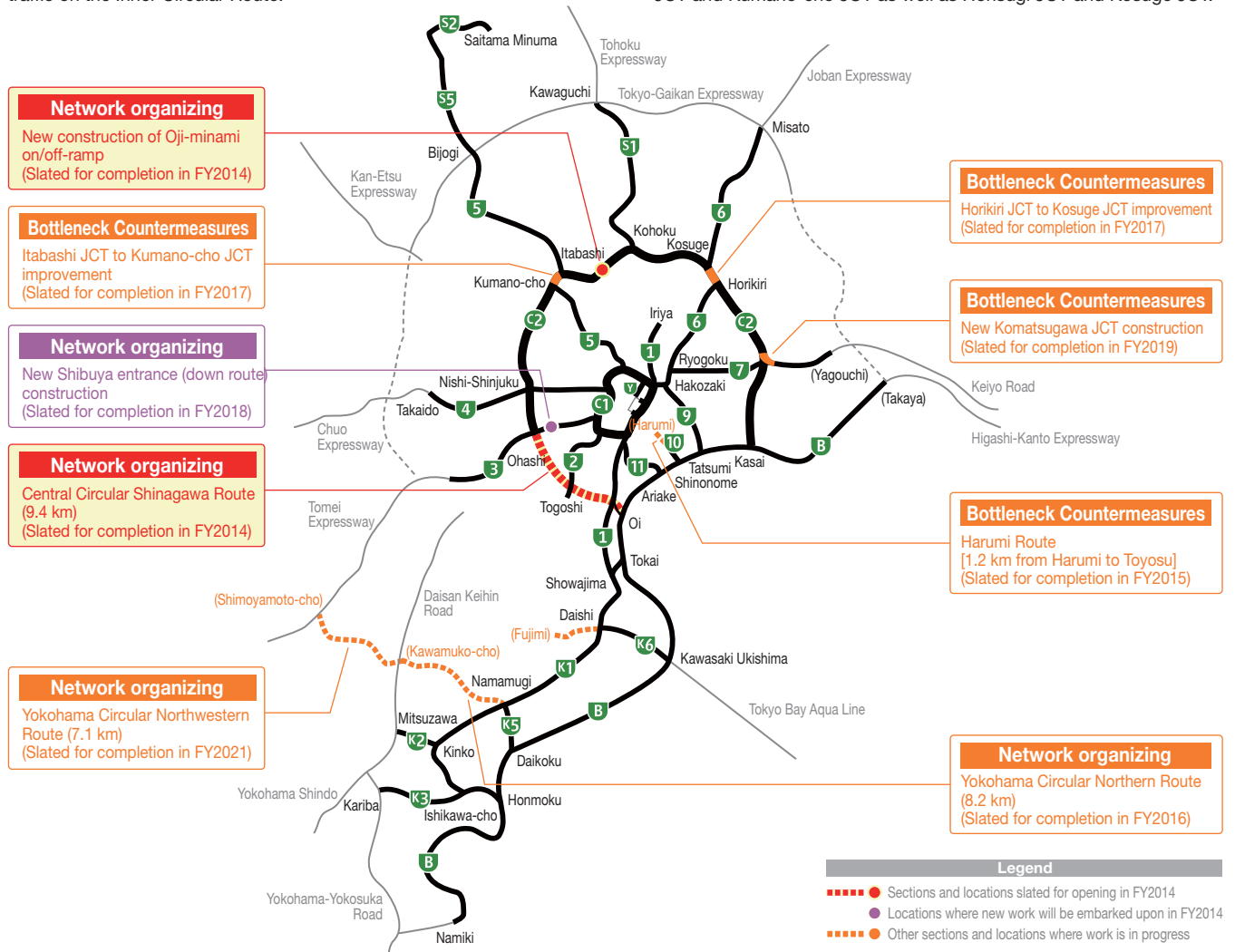
Types of Congestion	Main Causes of Congestion	Traffic Congestion Countermeasures
Excessive concentration of traffic (86%)	<ul style="list-style-type: none"> 60% of the traffic that uses the Inner Circular Route is traffic just passing through Traffic concentration in certain spots due to incomplete networks Traffic concentration at junctions of the Inner Circular Route and where on-ramps join main routes 	<ul style="list-style-type: none"> Expressway network development Bottleneck improvement Improvement in road signs and lane markings Provision of more diverse, sophisticated information Countermeasures against congestion caused by accidents and breakdowns Countermeasures against congestion caused by maintenance/repair work Other countermeasures, including expanded public relations
Accidents and breakdowns (11%)	<ul style="list-style-type: none"> When a route or lane is temporarily closed after an accident or breakdown 	
Road maintenance/repair work (3%)	<ul style="list-style-type: none"> When a lane is temporarily closed for nighttime maintenance or repair work An increase in the volume of nighttime traffic due to around-the-clock activity in large cities 	

Expressway Network Development

Work continues in the quest to expand our network, including the construction of the Central Circular Route to help reroute and disperse traffic on the Inner Circular Route.

Bottleneck Countermeasures

To bolster functions of the Central Circular Route, such as the rerouting and dispersing of traffic, we will make improvements between Itabashi JCT and Kumano-cho JCT as well as Horisugi JCT and Kosuge JCT.



Perennial Pursuit of a Metropolitan Expressway That Is Convenient,

Network under Construction

■ Central Circular Shinagawa Route

This line forms the Central Circular Route's southern section. Mostly tunnel, its construction will complete the Central Circular Route, meaning the entire Metropolitan Expressway network will function efficiently and enable route selection based on objective. In FY2014, we are working toward completing the shield tunneling in road-connecting operations, excavating the entrance and exit at Gotanda and work on related facilities.



State of construction on the main route shield

■ Oji-minami On/Off-Ramp

This is an entrance and exit that will provide an access to Ikebukuro, Shinjuku and Shibuya. It will further enhance the functionality and usefulness of the Central Circular Route while hopes are high that it will alleviate traffic problems on Meiji-dori and surrounding streets. In FY2014, we are working toward completing the overhead work with the on/off ramp, the girder replacement work at Mizota-bashi bridge and the replacement work at Shakujiigawa.



State of work on the ramp at Oji-minami

■ Yokohama Circular Northern Route

This route will form the northern side of the Yokohama Circular Route. The development of a more well supplied network of expressways within Yokohama city is expected to contribute to a massive stimulation of Shin-Yokohama, the Yokohama Port and the Keihin coastal areas. In FY2014, we will perform shield tunneling, lay floor slabs, do interior work, and conduct substructure, and superstructure work as well work on facilities at Namamugi and Kohoku junctions (excavation of the 5.5-km shield tunnel was completed in March 2014).



State of completion of shield



State of construction at Oi junction



State of construction of upper section of viaduct at Oji-minami ramp



State of construction at Namamugi junction



**Word
from
Our Staff**

Takayuki Shimakoshi

Design Division of Tokyo Construction Bureau

I am working on tunnel design for the Central Circular Shinagawa Route. Every day brings me happiness from being in a team cooperating with numerous other people to create a road out of nothing. I really look forward to the day when customers can use the road. From here on, I want to develop myself further through my daily work and hopefully become a highly skilled technician as well as striving to provide "safety, assurance and comfort" of the highest quality to customers.

Comfortable, and Eco-friendly

Yokohama Circular Northwestern Route

The Yokohama Circular Northwestern Route connects the Tomei Expressway, Yokohama Circular Northern Route and the Daisan Keihin Road. When completed, it will be integrated with the Yokohama Circular Northern Route and provide linkage to areas and expressways including the northwest area of Yokohama, the Tomei Expressway, central Yokohama, Haneda Airport and the Tokyo Bay Aqua Line. This is expected to improve traffic convenience, enhance international competitiveness, and improve the reliability of our expressway network in the wake of disasters and other emergencies. In FY2014, we will conduct a study, produce designs, acquire project land and implement substructure work at Kohoku junction.



A Word
from
Our Staff

Keiya Kaga

Design Division of Kanagawa Construction Bureau

I am involved in work on the tunnel ventilation system and the road-surface drainage system on the Yokohama Circular Northern Route. These systems are essential for safe and comfortable use of tunnels. I am really finding out how difficult designing can be from a multitude of perspectives, such as customer views and maintenance ones. From here on, I want to do my best to provide “safety, assurance and comfort” on our Metropolitan Expressway.

Bottleneck Improvement

● In order to improve efficiency provided by the Central Circular Route network, we will promote projects that enhance its function.

Improving between Itabashi JCT and Kumano-cho JCT

At present, the three lanes in both directions on the expressway section between Itabashi JCT and Kumano-cho JCT where Route 5 (Ikebukuro Line) and the Central Circular Route connect experiences congestion at certain times of the day due to the merging and splitting of traffic along a small section. This project is designed to ease congestion along this section by expanding it from three to four lanes each way.

Improving between Horikiri JCT and Kosuge JCT

At present, the three lanes in both directions on the Central Circular Route (inner) expressway section between Horikiri JCT and Kosuge JCT experiences chronic congestion due to the merging and splitting of traffic along a small section. This project is designed to ease congestion along this section by expanding it from three to four lanes each way.

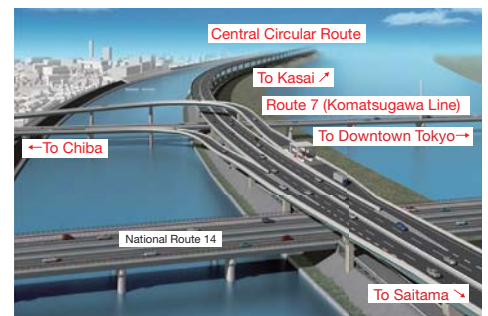


Rendering of the completed project

Komatsugawa JCT construction

There is no road near Nishikomatsugawamachi in Edogawa-ku that provides access to either the Route 7 (Komatsugawa Line) or the Central Circular Route that intersect at that area.

In order to respond to this issue, a road will be constructed that will connect the northern part of Tokyo (toward Saitama) with the southern part of Tokyo (toward Chiba). We expect that this new construction will enable the Central Circular Route to fulfill its optimum function and be highly effective in easing congestion by detouring/dispersing heavy downtown traffic.



Rendering of the completed project



Maintenance and Management

Working around the Clock 365 Days a Year to
Ensure the Safety and Comfort of Customers

Nonstop Maintenance—The Cornerstone of Road Safety

Precise Inspection and 24-hour System Maintenance

Inspection is the key to maintaining the Metropolitan Expressway. By performing inspections, damage to structures can be detected early on and decisions to make repairs can be made based on inspection results. It would be unacceptable if the expressway facility functions that allow smooth operation were to stop. With a permanently stationed staff, we monitor, operate and maintain around the clock all the systems involved in traffic control, facility control, toll collection, tunnel disaster prevention and multiplex communication.



Tunnel inspections using boom lifts



Detailed inspection work

Road Cleaning Operations

The garbage and silt collected annually by Shutoko amounts to approximately 2,000 tons. Even a single empty can left on a road may cause a major accident. To ensure the safety of all drivers on all routes, regular cleaning operations are performed on road surfaces throughout the Metropolitan Expressway as well as parking areas and other road facilities to support the more reassuring and satisfying use of those infrastructures.



Tile cleaning inside a tunnel

Structures and Preventative Maintenance

A variety of repair and construction reinforcement activities is being carried out on expressway structures to ensure safety. Metropolitan Expressway is extending the life of its structures by not only repairing damaged structures but also adopting preventative repair methods. To implement the proper maintenance of road assets, inspection data is used to deduce where damage is most likely to occur. We also make full use of inspection data, to pick out locations to be prioritized for repair as well as implement planned, efficient repairs in order to properly conduct maintenance management of our expressway asset.



Eliminating expansion joints along the Yokohane Line

Emergency Response System

An emergency response system is in operation around the clock 365 days a year to take care of road repairs and damage to facilities due to traffic accidents, retrieve fallen objects that obstruct traffic, and conduct other work vital to keeping the expressway network safe and functioning.



Emergency repair work

Scrupulous Safety Measures Implemented from All Possible

Executing Steel Structure Inspections and Fatigue Damage Countermeasures

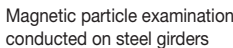
The Metropolitan Expressway is battered from long, harsh use, and some of its structures, such as steel girders, steel floor plates and steel piers, are showing signs of fatigue damage. In addition to visual checks, such damage is discovered through magnetic particle examination, ultrasonic testing, and other nondestructive inspections. To ensure the safety of roads which are subjected to increased heavy vehicle traffic and other harsh conditions, we will make concerted efforts to detect damage at an early stage, and make repairs and reinforcements as the need arises, to proactively implement countermeasures against steel-structure fatigue.



Laying down SFRC pavement as a plate deck fatigue countermeasure



Ultrasonic testing on steel base plates



Magnetic particle examination conducted on steel girders

Metropolitan Expressway Watching

One month of every year in May and June has been designated as the Metropolitan Expressway Facilities Safety Month. To help increase the safety awareness of all our employees, the activities conducted during this month include special inspections of all road facilities (Metropolitan Expressway Watching), the selection of annual watchwords to promote facility safety, and other related efforts. Shutoko and Shutoko Group employees along with college students are participating in a project called "Metropolitan Expressway Watching".



Metropolitan Expressway Watching in progress



A Word from Our Staff

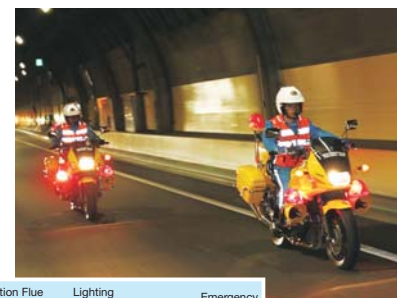
Yuri Iijima

Maintenance Design Division No. 2 of East Tokyo Operation Bureau

I am involved in repair and maintenance design for road lighting, traffic control equipment and ETC equipment, etc., in the East Tokyo area. As ETC equipment is extremely important in collecting tolls from customers, we strive to give equipment an extra edge, like doubling up on ETC antennas and installing uninterruptible power supply equipment, so that customers can use our expressway in the confident knowledge that everything is working for them.

Tunnel Disaster Prevention and Safety Measures

We install various disaster prevention facilities into our tunnels to ensure that customers can safely and surely escape if by chance there is a tunnel fire. We also watch over our customers 24 hours a day from our control center. We have also introduced the Shutoko Emergency Motorbike Team, the first ever designated two-wheel emergency unit run by a private enterprise in Japan, to swiftly take the initial response when an accident or something occurs in the Yamate tunnel, and, thanks to the team, safety in the city's long, big tunnel is getting even better.



Metropolitan Expressway motorcycle patrol



Yamate Tunnel disaster prevention equipment

Traffic Safety Measures

For safe use of the Metropolitan Expressway, we take various actions to alert about conditions, inform about road configuration ahead and pass on traffic information to customers by coloring the road surface to draw attention, carpet-coating roads, applying wording to road surfaces, applying zebra stripes to road surfaces as curve warnings and installing large warning signs. Furthermore, rear-end collisions in tailback situations often lead to significant pileup accidents, so we install LED display panels and overhead banners carrying warnings at known rear-end collision risk spots to urge caution in such locales. Likewise, to prevent serious accidents involving pedestrians, etc., we install signs at all ramps that carry messages telling pedestrians and cyclists that they cannot use the expressway. And, at ramps where pedestrians and cyclist often try to use the expressway by mistake, we install LED “no pedestrians and cyclists” panels that flash at night.



Road Curve Safety Measures
(Attention-grabbing colored road surface and large warning signs)



Tailback Rear-end Collision Countermeasure (LED panel)



Measures to prevent Mistaken Pedestrian Entry (LED “no entry” panel)



A Word
from
Our Staff

Takuya Inohara

Planning and Environment Department of West Tokyo Operation Bureau

I am involved in safety and traffic congestion measures in the west Tokyo area. I help to analyze causes of accidents and traffic jams on the Metropolitan Expressway, and then develop suitable countermeasures for such locations. Giving top priority to customers, I want to continue making the Metropolitan Expressway an even safer, more reassuring and more comfortable place to drive.

Safe Driving Support and Enlightenment

Metropolitan Expressway patrol cars make regular rounds on expressway routes on an around-the-clock basis to ensure traffic safety. Again, in August 2007, we started the “Tokyo Smart Driver Project”. The number of drivers participating in this project has topped the 140,000 mark. By linking up with various mass media bodies to output information and companies participating in the project, we have been able to develop a variety of events and campaigns to put out a call to all Metropolitan Expressway drivers, asking them to drive carefully and safely.

About the Tokyo Smart Driver

We believe traffic accidents can be reduced if only all the drivers on the expressway could calm down a little and exercise smart driving. This is a traffic safety project run by a citizen’s group with the aim of reducing traffic accidents through the power of communication. Also, to counter motorbike accidents, where rider injuries occur frequently, we are promoting “Tokyo Smart Rider” to educate people two-wheel safety.

■ Main Activities

We are promoting projects that center around positive concepts such as the holding of community-participation events and road banners appealing to drivers, which differ from the usual road safety and accident reducing campaigns incorporating messages such as “Sharing”, “Praise” and “Enjoy”.

■ Linking up with Participating Companies

We link up with companies participating in the Tokyo Smart Driver Project to develop campaigns aimed at cutting the number of traffic accidents. From here on we will continue promoting projects together with participating companies.



SMART DRIVER'S DAY
A Citizen-participation Event



Stickers on Taxis belonging to Tokyo Musen Kyodo Kumai

Spread of the Project

The message of the Tokyo Smart Driver project gave birth to volunteer activities across Japan (34 groups) by continuously capturing people’s hearts. Through expansion of such efforts, the project aims to steadily spread the concept that friends equal smart drivers.



Scene from Smart Driver Nationwide Conference



Driving Support

Providing Support to Drivers for
Greater Comfort and Convenience

Providing Traffic Information for Comfortable Driving.

Traffic Control and the Provision of Information

To enable customers to use the Metropolitan Expressway safely, smoothly and comfortably, we implement traffic control around the clock, and swiftly dispatch patrol cars to attend to accidents and clear up debris.

We make the most of our traffic control system to rapidly collect and process data moment by moment in order to provide customers with real-time road traffic information. Depending on the locale, we use a variety of media to pass on the information. Furthermore, we post route and statistic data in the toll and route guide of our homepage and mobile-phone website, so drivers can check required times to destinations.



Graphic and travel time information board

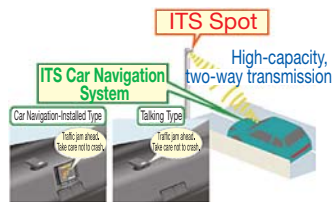
ITS Spot Service on the Metropolitan Expressway



Services provided in approximately 170 locations across all the Metropolitan Expressway

[About the ITS spot service...]

It is a service in which information is provided via high-speed, high-capacity transmission between "ITS spots" on the roadside and "ITS car navigation systems" installed in cars.



The service allows transmission of extensive traffic information making it possible to choose routes wisely, and reduce scary moments while driving by giving prior warning of approaching sharp curves.

[Example] Chuo expressway → Kasumigaseki (4)

① Route 4 Shinjuku Line, (heading toward Shinjuku), before Eifuku tollgate

② Route 4 Shinjuku Line (heading toward Shinjuku) Before Sangubashi

③ Route 4 Shinjuku Line (heading toward Shinjuku), before Gaien Exit tollgate

④ Metropolitan Expressway information: 10 more minutes to Kasumigaseki on the Metropolitan Expressway.

Here is the current situation beyond Gaien Exit.

Tollgate ahead. Decelerate to 20 kph.

Metropolitan Expressway information. Accident ahead. There was an accident in the clockwise lane of the Inner Circular Route at around 10:30 PM near Takebashi Junction...

Traffic jam ahead, take care not to crash

Collecting Information

Road patrol car

Vehicle detector

Motorbike Team

Traffic control TV camera

Processing Information

Traffic control room

Providing Information

display in turn

① 芝浦 JCT → ② 高樹町 故障車渋滞 5 KM

③ 平井大橋 → ④ 堀切 渋滞 4 KM

⑤ 高樹町 まで 35分

⑥ 堀切 まで 20分

Alternating displays of congestion distance and travel time

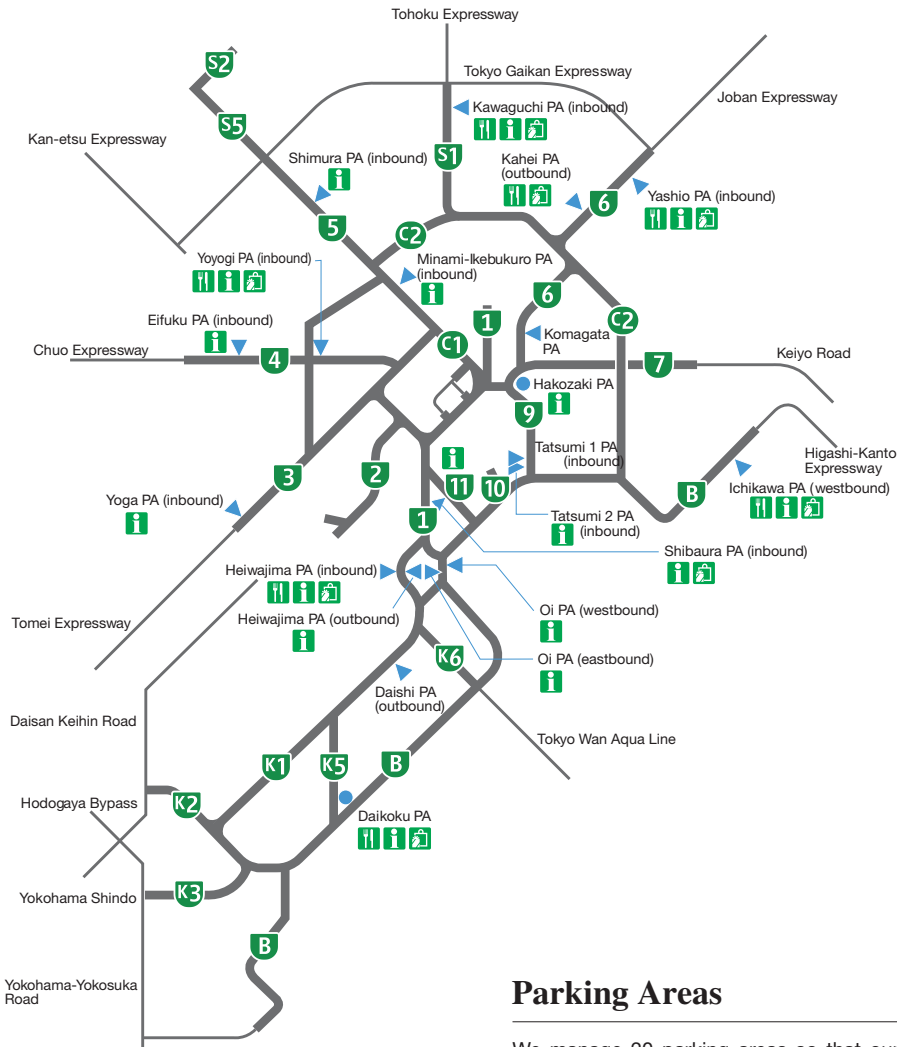
Sign displaying travel times

"Metropolitan Expressway Navi" at a parking area.

Toll and Route Guide

ITS Spot

Improvement for Even More Appealing Parking Areas



Yoyogi Parking Area



Power generating equipment that uses natural energy (Yoyogi Parking Area)



Renewed Daikoku Parking Area No. 2 Hall



Renewed Heiwajima (up route) Parking Area Cafe

Parking Areas

We manage 20 parking areas so that our customers can enjoy driving on the Metropolitan Expressway. In addition to providing each parking area with restrooms, a rest area, and an information corner, we have installed handicapped parking and multipurpose restrooms as part of our efforts to create barrier-free facilities. Consideration is likewise devoted to the use of colorful decorations and other designs, universal design, the environment, and other areas to make each parking area safe and pleasant for all customers. In addition, we are promoting the use of natural energy to lighten environmental impact.

We have developed urban parking areas that are appealing to stop at with shops that have set up open-air terraces where customers can relax, and convenience stores that provide 24-hour services. We have also made it possible to transfer from highway buses to trains at Yashio and Yoga parking areas, making improvements to parking areas to boost their appeal.

Metropolitan Expressway Parking Areas

- Restaurants / Snack Bars
- Information Corner
- Shops (e.g., convenience stores)

All parking areas have the following facilities.

- Restrooms
- Multipurpose restrooms
- Pay phones
- Vending machines
- Handicapped parking
- Printer for issuing ETC usage details

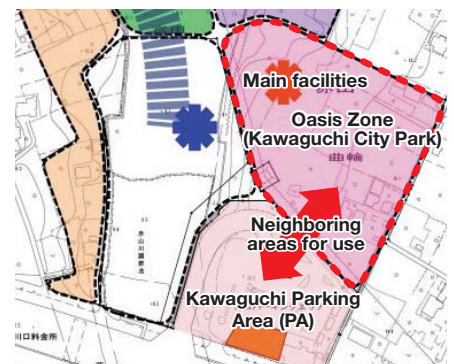
Track Record for Highway Bus & Rail Rides

For highway bus users, we are offering the opportunity to transfer from highway bus to train at a low-fare – an innovative transport concept to help passengers beat traffic build up along the way and to reach their destinations on time. We are implementing this system at Yashio and Yoga parking areas.



Shutoko's First Highway Oasis Underway

To enhance facility convenience, we are cooperating with Kawaguchi City to promote a “highway oasis” project to link up and integrate Kawaguchi Parking Area with local park land to create a long strolling course where there is no need to leave the Metropolitan Expressway.



Working with Customers and Local Communities to Make Pleasant Driving.

We energetically appeal to the public to use the Metropolitan Expressway for excursions.

We offer information via web and radio on recommended local drives and unique promotions taking place seasonally as well as by area. In 2014, we will continue to link up with local economies to stridently promote the “advantages” and “comfort” and “attraction of driving” by using the Metropolitan Expressway to visit local spots.

Campaign

Under the theme of “supporting family leisure drives”, we are running a campaign that promotes leisure driving through the seasons and also give away mobile coupons and other related gifts. We work with local authorities to provide discounts and privileges at stores and businesses, which all ties in with our “area campaign” efforts to introduce recommended areas that can be reached by the Metropolitan Expressway. During any particular campaign, we hold related events at parking areas and commercial facilities to positively support campaigns.

July to September 2013 Go! Go! Rainbow 20th

To mark the 20th anniversary of the opening of the Rainbow Bridge, we are cooperating with various facilities in Odaiba as we implement a campaign offering additional fun in Odaiba, with specialties such as mobile discounts up for grabs.



November 2013 to January 2014 Tokyo 100 Carat Campaign Let's Go to Odaiba!

In a joint effort with the Tokyo Sea Side council, we have listed up the ideal illumination spots in Odaiba, and are introducing them.



Spring, Summer, Autumn & Winter FY2013 We published special editions of Shutoko Jaran Hakone (April), Yamanashi (July), Yokohama (October) and Outlet Shopping Centers (January)

Shutoko Jaran features seasonal hot spots and information on topics such as regional dishes and places to visit by car. It also provides tips on how to travel with kids in the car.



Working together with Local Authorities and Tourist Spots

To offer some fun in a journey, we provide destination experiences for people on a day out by retailing famed local products like fruits and vegetables from locales like Yamanashi and Tochigi at our parking areas.

Tourist Produce Fair in Shutoko Parking Areas

In conjunction with in any given campaign, we sell agricultural produce and other local delicacies that are delivered directly from the campaign area to our Shutoko parking areas, where they are sold. In addition to produce sales, we also offer tourist information on regions.



Yamanashi Tourism and Produce Fair (Daikoku Parking Area)

Let's Go to Chiba! Campaign

We campaigned for people to use the Metropolitan Expressway to take leisure trips from Saitama prefecture to Chiba prefecture by introducing the charms and hot spots in Chiba at commercial facilities in Saitama prefecture.



Let's Go to Chiba! Campaign (March)

Constantly passing on info about the fun to be had with privileges included.

At our Shutoko Drivers Site, we offer straightforward information on driving spots, routes and nighttime vistas as well as the fun to be had there with privileges included.



Responding sincerely to customer's voice by providing high-quality service

Responding to Feedback from Customers

According to our customer satisfaction survey (approximately 15,000 respondents), the overall satisfaction score was 3.4 out of 5, the same as the previous year.

We want to keep working harder in areas that need improvement and to listen carefully to customer feedback on a daily basis. And, by achieving improvements, we will meet expectations and enhance customer satisfaction.

■ Example of Improvement (1)

Customer feedback: Broken lines parallel to unbroken lines made negotiating a curve a very easy piece of driving. You should use such line combinations at other curves.

Location: Curve at Gokokuji on No. 5 Ikebukuro Route (up route)

Response: Installed speed-reduction lane markers as a safety measure

Pre improvement



Post improvement



■ Example of Improvement (2)

Customer feedback: When entering the Hakozaki rotary from the Hakozaki ramp of No. 6 Mukojima Route (down route), drivers immediately have to choose where they are going to go, so I would like you to improve the guidance method to give drivers a little more time.

Location: Hakozaki rotary on No. 6 Mukojima Route (down route)

Improvement: We distinguished the separate directions with colors (red and blue) added to road surface signs and auxiliary signs to make guidance easier.

Pre improvement



Post improvement



A Word
from
Our Staff

Naoto Iwasaki

Road Operation Department of East Tokyo Operation Bureau

I am involved in running the Metropolitan Expressway in the East Tokyo area. In particular, I am mainly involved in external liaising connected to the operation of the Metropolitan Expressway, such as legal proceedings, negotiating with stakeholder organizations and coordination work. As these tasks are concerned with the proper management of the Shutoko infrastructure, I want to maintain a sense of duty as I try to do my best every day.

Shutoko Customer Center

All customer inquiries regarding the Metropolitan Expressway are processed at the Shutoko Customer Center, the central contact point for such matters. Prompt answers are given to questions about traffic congestion, time required to drive to particular destinations, routes, and numerous other concerns.

There is a dedicated fax line for customers with hearing impairments. In addition, the center mails out maps of the Metropolitan Expressway.

Shutoko Customer Center

Office Hours: 7:00 a.m.–8:00 p.m. (Monday through Sunday)

Tel: 03-6667-5855

Fax: 03-3249-1161 (exclusively for the hearing impaired)

Expressway Emergency Dial: #9910

This is an around the clock nationwide service offering free-dial to #9910 to enable drivers to report any emergency on the expressway, such as abnormalities, damage, accidents, breakdowns and debris/objects on the road.

How to make a Call

- Dial #9910 (free of charge and same number nationwide)
- Follow the audio guidance, first selecting route number and then "1" for an emergency call related to the Metropolitan Expressway.
- You will be put through to Shutoko Traffic Control Center.

※ Calls also can be made from the emergency phones for emergencies on the Metropolitan Expressway.

Shutoko ETC Call Center

The Shutoko ETC Call Center is the exclusive contact point for inquiries concerning the Shutoko electronic toll collection (ETC) system. The call center answers questions about various ETC services, such as toll discounts for ETC users.

Shutoko ETC Call Center

Office Hours: 9:00 a.m.–6:00 p.m. (Monday through Sunday)

Tel: 03-6667-5859

We provide info on our website.

Besides road traffic reports, our Shutoko website offers plenty of other information that makes driving on the Metropolitan Expressway a relaxed, convenient affair, such as route guidance to destination and toll cost search.

Shutoko Website

- Driver's site: <http://www.shutoko.jp/>
- Corporate Info Site: <http://www.shutoko.co.jp/>

Shutoko Mobile

- Smartphone site is the same URL as the driver's site
- Mobile phone users should go to <http://www.shutoko.jp/>

Efforts toward improving safety, security, and comfort

■ Protecting drivers from snow and ice

We implement snow and ice countermeasures in order to provide customers with a safe, secure, and comfortable driving experience including during the winter season.

Snow and ice countermeasures during the winter season (December 1 to March 31) include scattering deicing agent on roadways and removing snow.

- Perform road surface condition checks
- Scattering of deicing agent
- Snow removal
- Implementation of traffic control due to snowfall
- Provide information on road conditions



Scattering deicing agent (salt water) on the road surface

積雪あり！夏タイヤ走行不可

路面凍結時は#9910へ通報！

Examples of display notifications

■ Dealing with illegally modified vehicles

We will strengthen our approach to dealing with illegal vehicles as per the Road Traffic Act (cabinet order on vehicle restriction)

From the viewpoint of protecting road construction and ensuring traffic safety, we cooperate with related bodies to warn and apply constraints on vehicles deemed to be illegally modified according to the Road Traffic Act (cabinet order on vehicle restriction) at our toll gates.

We also work to prevent further violations according to the Road Traffic Act (cabinet order on vehicle restriction) by giving guidance at lecture classes and/or in direct private visits to haulage companies that repeatedly offend against the Road Traffic Act (cabinet order on vehicle restrictions).

We will continue to work toward the eradication of illegally modified vehicles by impartially dealing with violations of the Road Traffic Act (cabinet order on vehicle restriction).



Scene from a check on violations as per Road Traffic Act (cabinet order on vehicle restriction)



Related Business

Engaging in a Wide Range of Businesses
Making Use of All Kinds of Ideas and Technology

Putting More Effort into Parking Lots and Rest Areas

While establishing a stable, lasting business base with a focus on parking lots and rest areas together with related companies, we are working to conduct business appropriately by following new measures in order to contribute to the lives of people in the community by maintaining a customer perspective.

① Five City Planning Parking Lots

We will put more effort into the five city planning parking lots in the city, which are the foundations of our activities.

- Shiodome Parking Lot (455 spaces)
- Kabutocho Parking Lot (939 spaces)
- Honcho Parking Lot (306 spaces)
- Shirauobashi Parking Lot (226 spaces)
- Sendagaya Parking Lot (236 spaces)



City Planning Parking Lot Map

② Using Space under Viaducts to create Parking Lots

We run and maintain some 60 parking lots (5,200 spaces) that utilizes space under Metropolitan Expressway viaducts. And, in April 2013, we opened a pay-by-time parking lot (23 spaces) in the mid-level space of Ohashi junction, which is being used by people visiting O-path Meguro Ohashi.



Ohashi Junction



Parking Lot Entrance

③ Rest Area Business

At parking areas with restaurants, we are offering seasonal menu fairs and creating new menus to offer. In FY2013, we held a summer menu fair with chilled dishes and a winter menu fair with plenty of warm food to eat.



Summer "cool-down" menu (Yoyogi Parking Area)



Winter "warm-up" menu (Heiwajima Parking Area)

Seeking to Develop a Wide Range of Businesses

Developing Advertising Info Business

Credit card businesses as well as advertising and communications businesses are the focus of development in this area.

Credit Card Business

We have been advertising for people to become members of the “AEON Metropolitan Expressway Card (with WAON) since January 2011, allowing them to use the expressway at discounted prices.

With the AEON Metropolitan Expressway Card (with WAON), we can offer special privileges such as a 5% discount from tolls when using the card exclusively for ETCs on Sundays.

The card also has electronic money (WAON) functions and can be used like an AEON card to get shopping discounts and earning double points.



Advertising and Communications Businesses

We are using Metropolitan Expressway facilities in the development of public interest advertising businesses that increase the city's appeal and motivate interpersonal communication. Also, we will be developing advertising businesses using Web sites and other media.



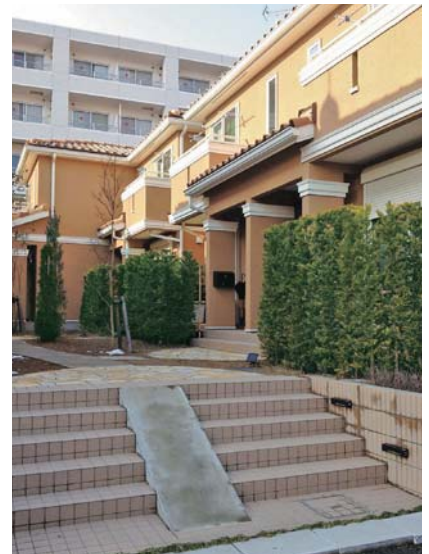
Rainbow Bridge
(advert supporting Olympic invite)



Rainbow Bridge (Pink Ribbon Festival light up)

Developing Real Estate Business

As part of real estate rental business that utilizes sites of former company houses, we administer real estate duties for “Trias Shin-Yurigaoka”. This housing complex has been built on the concepts of “safe and carefree design, construction and maintenance”, “local environmental friendliness”, and “eco-friendly measures for realizing a low-carbon society”. This complex boasts solar panels for outside lights and large outdoor spaces giving consideration to the environment.



Trias Shin-Yurigaoka

Life Services Business Development

Yono Utility Promotion Facility Business Development

For people using the expressway, Yono Utility Promotion Facility offers a carpark, an information house with a free resting facility, toilets, a convenience store, as well as an event space used by a model home complex themed on “creating a beautiful and luxurious townscape”, providing a wonderful detour for a carefree stroll.



Overview of Yono Junction



Yono Utility Promotion Facility

Developing Businesses in Lifestyle Services

We have moved into the self-storage and other logistics-oriented Businesses

Storage Room Businesses

The Ebisu Trunk Room provides local residents with a place to store household possessions, to contribute toward creating a more desirable living environment, and a more comfortable, easier lifestyle. We have also covered the walls of the building in greenery for greater environmental friendliness.



Shutoko Storage Room at Ebisu

Temporary-Staffing Businesses

The Shutoko Group's integrated personnel services company is engaged in the temporary-staffing business.

Group affiliate Shutoko Partners Company Limited offers meticulous personnel services that enable the optimum matching of temporary staff with corporate employers.

Insurance Agency Businesses

The Shutoko Group operates an insurance company as its official agent.

Shutoko Insurance Support Company Limited is one of our group companies, and it is expanding its chain of insurance agencies, to offer the highest of quality in safety and assurance to meet the insurance needs of customers.

Circulation Shutoko

Consistent with our thoughtful approach to the environment, Circulation Shutoko is a recycle project that makes effective use of Shutoko waste materials. We are collaborating with participants in this project to develop recycle merchandise brands.

From 2010, we started selling "HATARAKU TOTE" bags made from recycled banners (those used to inform customers of roadwork, road closures and driving manners) that had hung across Metropolitan Expressway routes, "Hi-W8" skateboards made from waste plywood signs (those installed on Shutoko lampposts or at ramps to inform of road closure) and "aruku-tire" sandals made from a combination of old banners and tires. Again, in 2013, we launched the "REBIRTH TOOL GEAR" shoulder/handbag series, once again using recycled banners. Thanks to Circulation Shutoko, we are working to recycle waste from expressway business as much as possible. From here on, we will be coming up with fun products and new ideas.



Seeking to Develop a Wide Range of Businesses

Technical Consulting Business Development

Promoting a technological consulting business that fully uses the Shutoko Group's accumulated expertise.

In collaboration with our group companies, we are providing technical consulting to road managers, such as national and regional authorities, with the consulting mainly centered around the business of inspection & maintenance management of expressway structures. (Orders taken in FY2013: 34 orders).

- Contribute to a broad spectrum of society through Shutoko technological prowess and knowhow in construction and maintenance management
- Develop consulting business that makes the most of Shutoko Group's in-house technology and Shutoko's location advantages
- Assure business results of the highest quality by applying our experience and accomplishments in expressway management requiring day-and-night overseeing of the Metropolitan Expressways

Comprehensive Strength of the Shutoko Group



Bridge Maintenance Technology Workshop

Since 2009, we have been cooperating with the technical personnel of authorities involved in maintaining and operating bridges and viaducts to deliver workshops aimed at raising technical excellence and achieving a lateral spread of knowledge.

The workshops aim at the mutual improvement of technical capabilities by focusing on Shutoko Group bridge maintenance case studies, examining local government efforts, and other similar means.

On 14 March 2014, some 37 participants from 11 organizations participated in an on-site inspection tour of the No. 1 Haneda Route on the Katsujima section.



Developing Seismic Diagnosis and Reinforcing Design Business

We are promoting the seismic diagnosis of buildings, particularly those adjacent to expressways.

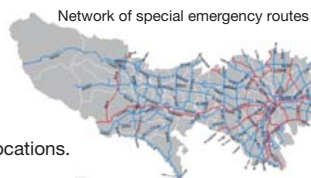
As a class-1 architect firm, we promote the seismic diagnosis of buildings and provision of reinforcing designs with the aim of turning Tokyo into a highly disaster-resistant city by taking advantage of the establishment of the Ordinance for the Promotion of Earthquake-resistant Buildings along Emergency Routes in Tokyo.

Mandatory Seismic Diagnosis

Seismic diagnosis has been made mandatory for all buildings in the Tokyo metropolitan area that fall under any of the categories listed below. As a general rule, seismic diagnosis costs are completely subsidized.

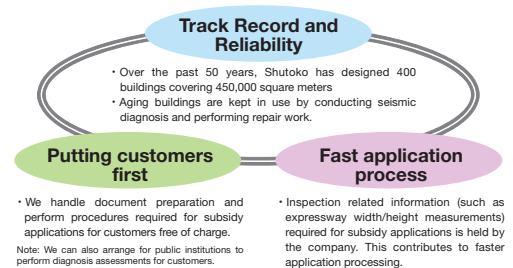
1. Buildings that border emergency routes at specific locations.
2. Buildings constructed before May 1981.
3. Buildings capable of extending over more than half of the height of special emergency routes when collapsed.

Note: Metropolitan Expressway is specified as one of the special emergency routes in the Tokyo metropolitan area.



Seismic Diagnosis Business

With over 50 years of experience, we perform seismic diagnosis by fully utilizing our technological capabilities accumulated through the design, construction, and operation of parking areas and similar structures.



Related Street Businesses

We undertake the construction, renovation, etc., of ordinary streets for regional public organizations on a contract basis. Main projects currently in progress are as follows:

Tokyo Metropolitan Ring Road No. 6 (Yamate Dori) Improvement Project (Central Circular Shinjuku Route)

Kishiya-Namamugi Line Construction Project (Yokohama Circular Northern Route)

Minami-Honmoku-futo Connecting Harbor Road Construction Project (Bay Route Ramp)



After work on No. 6 Circular Route

Forging Ahead with International Contributions

We have targeted developing countries for long-term dispatches of specialists and accepted trainees from nations around the globe

Through Japan International Cooperation Agency (JICA), we have targeted governmental organizations for long-term dispatches of specialists to cooperate in giving technical guidance and fostering human resources. We also actively participate in programs run by JICA, and we have many trainees studying and training at our facilities and construction sites. We accept many visitors annually, including government officials wishing to tour the Metropolitan Expressway.



Visit from Myanmar's Minister of Construction

Forging Ahead with Technical Cooperation with Overseas Road Agencies

In addition to signing a "Memorandum of Understanding on Technological Cooperation" with the Ministry of Public Works and Transport of Cambodia in August 2009, we also signed a similar memorandum with road agencies in Thailand, Indonesia, and France. We will continue to promote technical cooperation with related organizations from overseas by making use of the expertise, knowledge and experience refined at Shutoko.



Accepting JICA trainees (Traffic Control Room)

Expanding into Overseas Activities

We have established overseas representative offices and are promoting overseas development.

With the aim of powerfully promoting international contributions and overseas business, we established overseas representative offices in Bangkok, Thailand, and Jakarta, Indonesia in June 2011. To galvanize functions as one regional base overseas in this fiscal year, we have integrated both offices into one based in Bangkok, and will continue to further expand overseas operations centered around Thailand and surrounding countries.

We have established Japan International Expressway Company Limited (JEXWAY).

Five expressway companies (Shutoko, NEXCO East, NEXCO Central, NEXCO West and Hanshin Expressway Co., Ltd.) jointly invested in the founding of Japan International Expressway Company Limited (JEXWAY) in September 2011, based on the idea that we want to make the utmost of our management resources, which we have refined over the course of many years.

Expanding Our Consulting Businesses Overseas

Since becoming a consultant for JICA in February 2010, we have been expanding our consulting businesses overseas. In January 2013, we received an order to perform overseas consulting work directly from Don Muang Tollway Public Company Limited in Thailand. We will continue to expand the practical use of our broad variety of technologies and knowhow accumulated over half a century of involvement in planning, constructing, operating and management of expressways.



Signing of memorandum with Don Muang Tollway Public Company Limited (Thailand)



On the job bridge inspection training for overseas technicians (Thailand) as part of our overseas consulting business activities



Environment

Contributing to Improving the Roadside Environment
and the Growth of Regional Communities

Making an Effort to Improve the Environment and Co-Exist in Harmony with Regional Communities.

Environmental Protection Measures

Proactive Use of Technology to Protect the Roadside and Global Environment.

Using an Eco-Friendly Tunnel Design

Almost the entire length of the Central Circular Shinjuku Route and Central Circular Shinagawa Route are underground meaning the roadside environment is protected from the noise and vibrations of traffic on the Metropolitan Expressway, and countermeasures against exhaust fumes are efficient. Low-concentration denitration equipment (SPM removal device [electric precipitator] and equipment to remove low-concentration NOx) is being used on the Central Circular Route (Yamate Tunnel) and Kanagawa Route 6 (Kawasaki Line) (Daishi Tunnel), to minimize environmental impact.



Yamate Tunnel ventilating tower.

Various Measures to Improve the Roadside Environment

Sound barriers have been put up to block the noise from expressways leaking out into the surrounding environment, and sound absorbing boards are used on the underside of viaducts to dampen the reflection of sound from the surrounding area. Measures are also taken to reduce sound and vibrations coming from the surface of roads, through the use of construction methods to make bridges seamless, and high-performance, low noise pavement with good drainage.



Sound barrier above the wall of the expressway.

Building up the Infrastructure to popularize Electric Cars

We have installed fast chargers for electric cars at eight of our parking areas (Heiwajima [up route], Yoga, Yoyogi, Shimura, Yashio, Ichikawa, Daikoku and Kawaguchi) to enable electric car drivers to travel confidently on the Metropolitan Expressway. Indeed, at Shutoko, we are introducing electric cars into the fleet of commercial vehicles we use, as we too want to help in the push to popularize electric cars by also being a user.



Electric Car Fast Charger (Kawaguchi Parking Area)

Aiming to Build Roads Which Co-Exist in Harmony with Regional Communities, and Promoting Communication of Information and Environmental Protection.

Communicating Information on the Environment

We actively announce to our Shutoko customers the work we are doing for the environment on our Shutoko on our homepage and at our events with the hope that customers will join us in thinking about the environment.



Promotion Work at an Environment Event

Establishment of Metropolitan Expressway Biotope in the Minuma Rice Fields

Aiming to become a “new type of urban expressway which coexists in harmony with nature”, a rare and precious track of green land – remaining so close to the city center in the area around the Minuma rice fields of the Saitama Shintoshin Route – has been set aside to restore the unique ecosystem of the area. A 1.7 km stretch of land with an area of 6.3 ha, under the Metropolitan Expressway viaduct, has been set aside to establish a biotope (*).

※Biotope: A place where indigenous animals can thrive.



Metropolitan Expressway Biotope in the Minuma Rice Fields

Ohashi “Green” Junction

Ohashi junction, which connects No. 3 Shibuya Route and the Central Circular Route (Yamate Tunnel), has been established with three green policies: “restored nature”, “greenery in the park” and “greenery on the street” – all brimming with Shutoko’s environmental technology.

Of these, the Ohashi Sato no Mori green space has been established on the rooftop of the Ohashi tunnel ventilation station to recreate the original landscape of the area, providing local children with the chance to plant rice the traditional way in the green space’s paddy field.



Full view of Ohashi Junction rooftop

Making an Effort to Co-Exist in Harmony with Regional

Planting Trees along Roads to Improve the Landscape

Trees are being planted along roads to create a safe and pleasant environment for driving in. They also act as a countermeasure against the heat island effect, and contribute toward prevention of global warming.



Greening of viaduct wall near Urayasu on the Bayshore Route.



Greening of curbside in Iidabashi on the Route 5 (Ikebukuro Line).



Greening of Yoyogi Parking Area wall.



Greening of girders at Nishi-Shinjuku Junction.



Greening of Komagata Parking Area Wall.



Greening of Daishi Junction.

Respect for City Landscape

We are carrying out measures to improve the appearance of Metropolitan Expressway in both construction and operation phase so that the expressway network fits into the metropolitan region's 21st century urban environment. Our in-house project team, the Comfortable Space Creation Project, makes improvement of the city landscape. In the case of Ohashi Junction, we employed an uneven exterior surface finish to soften oppressive presence of the huge concrete structure.

We have installed panels and LED lighting on the underside of the viaduct at Akihabara Ekimae on No. 1 Ueno Route and have repaired and painted the girders and piers there too.

Ohashi Junction wall surface



No. 1 Ueno Route Akihabara Ekimae

Communities.

Implementation of Social Service Activities

We implement various social service activities together with community members to contribute to improving the environment and growth of regional communities.

■ Shutoko Children Support Project

Continuing on from last year, we again held the Shutoko Children Support Project, inviting to Tokyo some elementary school children from an area affected by the Great East Japan Earthquake. On this occasion, we invited 40 people (20 children and 20 parents) from an elementary school in Iwaki, Fukushima prefecture. This group visited the Shutoko Traffic Control Center and a building site on the Central Circular Shinagawa Route, enabling the group to learn about Shutoko's technological skills and road management at the very frontline of expressway business (held in conjunction with the Metropolitan Expressway Association).



Shutoko Children Support Project (Central Circular Shinagawa Route)



Community Cleaning



Worksite Tour (parent and child tour during summer vacation)

■ Activities undertaken with Local Communities

○ Cleaning in the Community

With the aim of coexisting with local communities and encouraging road tidiness, four times each fiscal year, we clean under Shutoko viaducts as well as around company offices and city planning parking lots.

○ Running Site Tours

We hold site tours of building sites (like the Central Circular Route and Yokohama Circular Northern Route) and our Traffic Control Center for business people and local inhabitants.



Tokyo Terakoya



Daikoku Parking Area Garden Activities

■ Support for Training

○ Cooperating in General Training

We energetically support students – for example, we participated in the “Tokyo Terakoya” (training school) at the request of local elementary and junior high school students as well as being involved in student flower planting at the Daikoku Parking Area on the Bay Route.



A Word
from
Our Staff

Kaori Hatakeyama

Environment Department of Planning and Environment Division

I am involved in general duties related to environmental measures taken along routes and environment public relations work via events, etc.

I take great care to accurately and clearly inform the public how Shutoko is aiming to become a leading environmentally friendly company. I want to raise customer awareness of environmental issues via the approaches we take at Shutoko.



Human Resource & Technology

Boosting organization prowess by nurturing professionals to underpin our work

Molding an environment to support the challenges undertaken by employees

Nurturing Manpower and Studying Technology

Nurturing a group of road-building professionals to promote business

Our accumulated efforts over the last half century, with three exceptional technological capabilities – “build, utilize and protect” supporting the expressways running through the metropolitan area – have received many plaudits both from home and abroad. And, in order to nurture our road-building professional organization, we strive to make use of the vast knowledge gained through work in the efforts we make and the technology we refine, to contribute to the development of personnel, who will succeed with the task of further enhancing our technologies.



Training

■ Specialist Technical Training

For fields closely related to our business, such as “Planning & Environment”, “Design & Building”, “Operation & Maintenance” and “Quality control”, we work to improve specialist knowledge and technical skills by implementing training in accordance with employee hierarchy.

■ Encouraging and Supporting Acquisition of Qualifications

We encourage and support the acquisition of qualifications necessary for work – such as: the Professional Engineers, the First-Class Architects, the First-Class Civil Engineering Works Execution Managing Engineer, the Value-Engineering Leader and Real Estate Transaction Specialist. (Qualified personnel: 61 Technicians and 24 1st-class architects, as of end of March 2014)

■ Studying abroad program

We have established systems for trainees to study in universities overseas and to study in universities in Japan, in order to develop the capabilities of employees so they can deal with a diverse range of business opportunities and to support the expressway business.

Making the Most of Technology and Developing New Technology

With regard to construction and maintenance operations for Metropolitan Expressways, over and above the diversification of structures and construction work that coincides with ongoing deterioration of existing buildings, we are required to efficiently assure safety, usability and durability.

For this reason, in addition to our own technology, we make full use of technology and knowhow related to the various fields of the specialties of universities, research institutes and other enterprises, to proactively take on board the latest knowledge. Thus, we carry out joint research in order to effectively and efficiently develop sophisticated technologies.

■ Social action works by making the most of fully trained professionals

We support society by making the most of the professionals we have nurtured, sending them to teach at universities as part-time lecturers and involving them in similar educational efforts. (Universities that our staff attended as part-time lecturers in FY2013: Yokohama National University, Nihon University)

■ Joint research themes implemented in recent years

- (1) Research related to rapid renewal technology for existing reinforced concrete slabs
- (2) Research related to widening construction for existing precast slabs
- (3) Research related to technology for improving earthquake resistance on existing bridges/viaducts
- (4) Research related to suitability of organic solar cells

As with previous in 2013 also Shutoko technology was also awarded prizes such as the Environmental Award of the Japan Society of Civil Engineers.

■ Awards received in relation to Shutoko technology (FY2013) (as of 1 July 2014)

No.	Name	Award Details	Date	No.	Name	Award Details	Date
1	Organization for Landscape and Urban Green Infrastructure Minister's Prize (Ministry of Environment) for competition in specialized greening technology for rooftops & walls (rooftop greening category)	“Ohashi Sato no Mori” nature restoration (greening) on rooftop of Shutoko Ohashi ventilation building	23 October 2013	5	The Illuminating Engineering Institute of Japan Good Lighting Award	Meguro Sky Garden's O-path Yume Hiroba (prize shared with Meguro Ward)	29 May 2014
2	Parks & Open Space Association of Japan Minister's Prize (Ministry of Land, Infrastructure, Transport and Tourism) for urban park competition (planning and creativity category)	Meguro Sky Garden's O-path Yume Hiroba (prize shared with Meguro Ward)	30 October 2013	6	Environmental Award of the Japan Society of Civil Engineers	For creation and completion of “Ohashi 'Green' Junction” working toward a balanced city environment	13 June 2014
3	Japan Institute of Design Promotion Good Design Award BEST 100	Junction [Ohashi Junction] (award shared with Tokyo and Meguro Ward)	30 October 2013	7	Tanaka Award (produced work category), Japan Society of Civil Engineers	Metropolitan Expressway Yaesu Route, Shiodome viaduct (award shared with Tokyo)	13 June 2014
4	Japan Institute of Design Promotion Good Design 100 Designs for the Future	Junction [Ohashi Junction] (award shared with Tokyo and Meguro Ward)	6 December 2013	8	Zenken Award of Japan Construction Engineers' Association	Replacement of viaduct on Yaesu Route of Metropolitan Expressway (award shared with Tokyo)	27 June 2014

(Please see <http://www.shutoko.jp/ss/tech-shutoko/jyusyuu/> for details of previous awards.)

FY2013 Financial Statements

■ Consolidated financial statement

● Consolidated balance sheet (March 31, 2014)

(Unit: ¥100 million)

Item	Amount	Item	Amount
Highway assets in process	4,141	Outstanding payments	448
Other current assets	1,218	Other current liabilities	1,077
Total current assets	5,359	Total current liabilities	1,525
Property, plant and equipment	663	Corporate debenture related to road construction	2,131
Intangible assets	11	Long-term debt related to road construction	1,517
Investments and other assets	21	Other fixed liabilities	491
Total fixed assets	696	Total fixed liabilities	4,140
		Total liabilities	5,666
		Capital	135
		Capital surplus	135
		Earned surplus	143
		Other comprehensive income accumulated	△ 27
		Minority interests	3
		Total net assets	390
Total assets	6,056	Total liabilities and net assets	6,056

※ Some amounts in the table above may not be fully accurate because fractional amounts under 100 million yen have been rounded down.

● Consolidated profit and loss statement (1 April 2013 to 31 March 2014)

(Unit: ¥100 million)

Item	Amount
Operating revenue	3,162
Rent expenses on highway assets	1,936
Administration costs of highway business and cost of sales	1,131
Selling, general and administrative expenses	88
Operating income	5
Non-operating income	4
Non-operating expenses	1
Ordinary income	8
Extraordinary loss	3
Pretax profit of the current period	4
Corporation tax and other taxes	9
Minority interests	0
Net loss at the end of the current period	4

※ Some amounts in the table above may not be fully accurate because fractional amounts under 100 million yen have been rounded down.

■ Individual financial statements

● Balance sheet (March 31, 2014)

(Unit: ¥100 million)

Item	Amount	Item	Amount
Highway assets in process	4,139	Outstanding payments	472
Other current assets	1,124	Other current liabilities	1,037
Total current assets	5,263	Total current liabilities	1,509
Property, plant and equipment	632	Corporate debenture related to road construction	2,131
Intangible assets	10	Long-term debt related to road construction	1,517
Investments and other assets	22	Other fixed liabilities	440
Total fixed assets	665	Total fixed liabilities	4,088
		Total liabilities	5,598
		Capital	135
		Capital surplus	135
		Earned surplus	61
		Total net assets	331
Total assets	5,929	Total liabilities and net assets	5,929

※ Some amounts in the table above may not be fully accurate because fractional amounts under 100 million yen have been rounded down.

● Profit and loss statement (April 1, 2013 to March 31, 2014)

(Unit: ¥100 million)

Item	Amount
Toll revenue and other sales	2,544
Highway asset completion sale	240
Rent expenses on highway assets	1,936
Highway asset completion cost	240
Operating expenses	632
Operating loss in expressway business	24
Related business revenue	348
Related business expenses	342
Related business operating profit	6
Operating loss for all businesses	18
Non-operating income	5
Non-operating expenses	1
Ordinary loss	13
Extraordinary loss	3
Pretax net loss of the current period	16
Corporation tax and other taxes	△0
Net loss of the current period	16

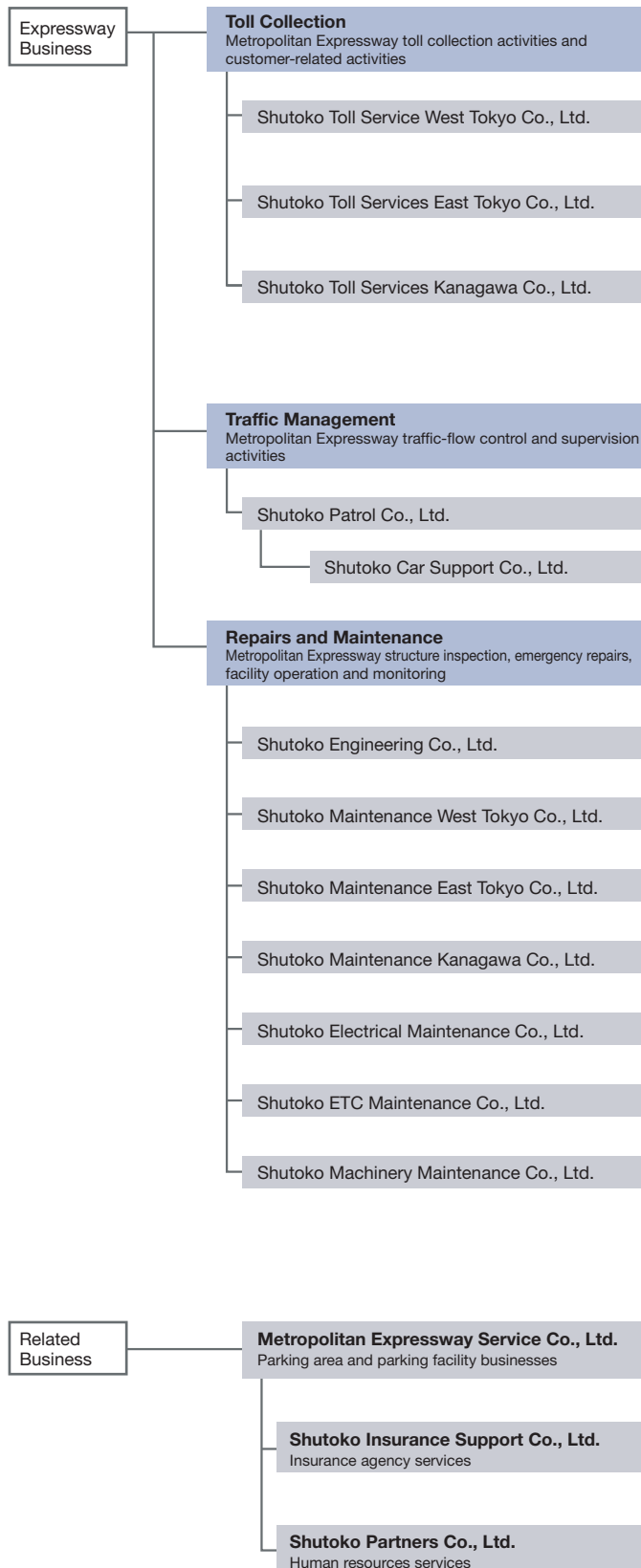
※ Some amounts in the table above may not be fully accurate because fractional amounts under 100 million yen have been rounded down.

Company History

June 17, 1959	Metropolitan Expressway Public Corporation (MEPC) is established to ease chronic traffic congestion.
December 20, 1962	First section of Metropolitan Expressway opened. (a 4.5-km section of No. 1 Haneda Route between Kyobashi and Shibaura on Inner Circular Route)
July 4, 1967	The Inner Circular Route is finished upon completion of the section between Shiba Koen and Kasumigaseki.
July 19, 1968	First section of Kanagawa Route opened (Yokohane Line of No. 1 Kanagawa Route between Asada and Higashi-Kanagawa); also, total length of expressway tops 50 km.
March 21, 1971	Section between Edobashi JCT on No. 6 Mukojima Route and Yagochi on No. 7 Komatsugawa Route opened, and is connected with Keiyo Road.
December 21, 1971	Shibuya Line of Route 3 opens between Shibuya and Yoga and is connected with Tomei Expressway.
February 15, 1973	Yaesu Route opens. Total length exceeds 100 km.
May 18, 1976	Shinjuku Line of Route 4 is connected with Chuo Expressway.
January 20, 1978	Bay Shore Route opens between Shin-Kiba and Urayasu as the first Metropolitan Expressway in Chiba Prefecture.
January 24, 1985	Misato Line of Route 6 opens between Kosuge JCT and Misato JCT as the first Metropolitan Expressway in Saitama Prefecture. This section is connected with Joban Expressway.
December 24, 1986	Daily traffic volume exceeds 1 million vehicles.
September 9, 1987	Central Circular Route opens between Yotsugi and Kasai JCT, and the section between Senju-Shinbashi on the Central Circular Route and Kawaguchi JCT on the Kawaguchi Line opens and is connected with Tohoku Expressway. Total length exceeds 200 km.
September 27, 1989	Yokohama Bay Bridge on the Bay Shore Route opens.
November 9, 1991	Metropolitan Expressway is totally closed for the first time for repair work on the Komatsugawa Line of Route 7.
August 26, 1993	Rainbow Bridge on the Daiba Line of Route 11 opens.
October 26, 1993	Ikebukuro Line of Route 5 is connected with Tokyo Gaikan Expressway.
December 21, 1994	Bay Shore Route between Haneda Airport and Daikoku JCT opens. Tsurumi Tsubasa Bridge opens.
May 19, 1995	Learning lessons from the Great Hanshin-Awaji Earthquake in January, MEPC starts the reinforcement of bridge piers.
December 18, 1997	Ukishima JCT is connected with Tokyo Wan Aqua Line.
May 18, 1998	Saitama Omiya Route (between Bijogi JCT and Yono) opens.
April 24, 2000	Trial operation of ETC starts.
March 24, 2001	Cumulative traffic exceeds 10 billion vehicles.
March 30, 2001	ETC service starts. (installed at 11 tollgates)
October 22, 2001	Entire Bay Shore Route opens.
April 30, 2002	Kawasaki Route (between Ukishima JCT and Tonomachi) opens.
December 25, 2002	Central Circular Route (between Itabashi JCT and Kohoku JCT) opens.
May 26, 2004	Saitama Shintoshin Route (between Shintoshin-Nishi and Shintoshin) opens.
October 1, 2005	Metropolitan Expressway Co., Ltd. is established.
February 14, 2006	Metropolitan Expressway Service Co., Ltd. is established. (start of business: April 1)
March 31, 2006	Agreement with Japan Expressway Holding and Debt Repayment Agency is concluded, and license to operate is granted by the minister of land, infrastructure, and transport.
August 4, 2006	Saitama-Shintoshin Route (Shintoshin to Saitama-Minuma) opens.
September 21, 2006	Shutoko Insurance Support Co., Ltd. is established (start of business: December 1). Shutoko Partners Co., Ltd. is established. (start of business: January 4)
March 30, 2007	Daily ETC traffic volume exceeds the 1 million vehicles.
April 3, 2007	Shutoko Maintenance West Tokyo Co., Ltd. and four other repair and maintenance companies are established. (start of business: July 13)
November 6, 2007	ETC rate of utilization surpasses 80%.
November 21, 2007	Yokohane Line's Yokohama Park off-ramp opens.
December 22, 2007	Name of Bay Shore Route Jusangochi on-/off-ramp is changed to Rinkai-fukutoshin.
December 22, 2007	Central Circular Route linking Route 4 (Shinjuku Line) and Route 5 (Ikebukuro Line) opens.
February 25, 2008	The total number of ETC traffic volume exceeds the 1 billion vehicles.
March 7, 2008	Shutoko Machinery Maintenance Co., Ltd. is established. (start of business: July 1)
March 17, 2008	Eastbound Bay Shore Route between Ariake JCT and Tatsumi JCT is widened to four lanes.
June 6, 2008	Shutoko Engineering Co., Ltd. is established. (start of business: July 1)
July 1, 2008	Eight toll collection companies are merged into three companies—Shutoko Toll Services West Tokyo, Shutoko Toll Services East Tokyo, and Shutoko Toll Services Kanagawa. Shutoko Car Support Co., Ltd. is established. (start of business: October 1)
February 11, 2009	No. 10 Harumi Route (between Toyosu and Shinonome JCT) opens.
March 29, 2009	Daishi JCT (Yokohama direction) on Yokohane Line of No. 1 Kanagawa Route opened.
March 28, 2010	Central Circular Route linking Route 3 (Shibuya Line) and Route 4 (Shinjuku Line) opens.
October 20, 2010	Kawasaki Line (between Tonomachi and Daishi JCT) opens. / Total length exceeds 300 km.
January 1, 2012	Shift from unified toll to single-distance toll.
December 20, 2012	Metropolitan Expressway 50th anniversary.
January 15, 2013	Proposals made by the Investigative Committee for the Effective Implementation of the Large-scale Structural Renewal of the Metropolitan Expressway.
August 26, 2013	20th anniversary of Rainbow Bridge opening.
December 25, 2013	Announcement of Metropolitan Expressway Renewal Plan (draft).

Shutoko Group Companies

(As of April 1, 2014)



Usage Conditions

(1 April 2013 to 31 March 2014)

Traffic Volume

(Unit: Thousand vehicles)

Category		All Routes
Total		346,931
Vehicle Type	Ordinary vehicle	310,192
	Large vehicle	36,739

Toll revenue

(Unit: ¥1 million, tax excluded)

Category	All Routes
Total	254,443

ETC utilization rate

(Unit: %)

Utilization rate (March 2014)	92.1
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METROPOLITAN EXPRESSWAY CO., LTD.

www.shutoko.jp