Communicating Asset Management
Using Enterprise Asset Management Principles to Shift an Organization’s Operational Focus to a Customer-Centric Service Model for Better Strategic Alignment

MTA Bridges & Tunnels will be the world class operator and maintainer of open road tolling bridges and tunnels providing outstanding, reliable customer service such that every customer and stakeholder has deep confidence in high performing staff who are inspired to be the best they can be.

Every Crossing Counts

Transportation Research Board National Conference on Transportation Asset Management
July 17, 2018
MTA Bridges and Tunnels

- Operates seven bridges and two tunnels in New York City
- Largest toll collector in the US - $1.9 Billion in 2017
- 310 Million paid vehicles in 2017
- Dual mission:
  - Provide critical regional transportation links
  - Subsidize transit operations
- In 2017, provided over $1.2 Billion to support MTA mass transit
- $620 Million 2018 Operating Budget
- $2.9 Billion Capital Program for 2015-2019
- Enterprise Asset Management Program since 2013
ORT Drives Change with Smart Infrastructure

• Revenue Collection Reliability

• Operating Costs

• Data/Information Challenges

• Aging Toll System Plaza Infrastructure

• Centralized Operations
The Journey Continues: Centralized Operations Model

- New Operational Model focused on Customer Service

- Making our infrastructure smart using Enterprise Asset Management (EAM) Principles
  - Improve resiliency and sustainability
  - Improved Data Quality
  - Performance-based Reporting
  - Strategic Decision Making
  - Alignment of business functions to corporate goals and vision

- We are LEANING IN!
Leaning in to Better Performance

Customers

Revenue

Safety
How **DO WE** make Customers Central to Everything we do?

- Performance Management and Reporting
- Risk Management and Assurance
- Customer Service
- Integrated Program Management
- Life Cycle Asset Management
- Operational Technology and Innovation
- Business Support Functions
<table>
<thead>
<tr>
<th>Service production</th>
<th>Reporting Requirements</th>
<th>Service-Revenue business risk</th>
<th>Safety management program</th>
<th>Asset production</th>
<th>Operational systems</th>
<th>People management program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations Department – Analysis</td>
<td>State of Good Repair (SGR) Ratings</td>
<td>Top-Line Safety Performance Indicators</td>
<td>Top-Line Safety Performance Indicators</td>
<td>Asset Handover</td>
<td>Open Road Tolling (ORT)</td>
<td></td>
</tr>
<tr>
<td>Revenue Production</td>
<td>Performance framework</td>
<td>Risk Register Quality Assurance Function</td>
<td>Enterprise Asset Management System (EAMS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BTO Staffing Analysis</td>
<td>Performance Management Framework</td>
<td>Risk management program</td>
<td>Quality Management System (QMS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer service parameters</td>
<td>Risk Management Framework</td>
<td>Security risk Management Framework</td>
<td>Environmental Management System (EMS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Service Performance Framework</td>
<td>Risk management program</td>
<td>Security management program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue-Cost Tracking</td>
<td>Customer service parameters</td>
<td>Security Risk Management System (SRMS)</td>
<td>Security Department - Analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BTO Staffing Analysis</td>
<td>Customer Service Performance Framework</td>
<td>Security management program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agency key performance indicators</td>
<td>Audit and assurance program</td>
<td>Extend program approach to emerging business functions</td>
<td>Asset management financial planning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top-Line Revenue Production</td>
<td>Management System Roles and Responsibilities</td>
<td>Nine (9) Facility AMPs</td>
<td>Fleet AMP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Randall’s Island Campus AMP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data management strategies</td>
<td>Asset Breakdown Structure (ABS)</td>
<td>Internal service level agreements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset class management strategies</td>
<td>Asset Breakdown Structure (ABS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset Register</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Performance Management Framework

“Every Crossing Counts”

Objectives
Facilities
Departments

Customers
Safety
Revenue
“Every Crossing Counts” – Making every crossing count for our customers!

Objectives

Facilities

Departments

Our infrastructure enables the provision of each unit of service

Our people provide stewardship of our infrastructure and strive to provide service excellence
Understanding the Customer Experience

- Measuring performance from the perspective of the customer – separated into 4 distinct phases.

<table>
<thead>
<tr>
<th>Customer Service Phase</th>
<th>Description</th>
</tr>
</thead>
</table>
| Long Before a Crossing      | Non-travel periods
                              | Trip planning information is readily available
                              | Customer awareness of significant changes in roadway conditions – e.g. roadworks                                                      |
| Soon Before a Crossing      | Getting ready to travel
                              | Traveling and approaching our facilities
                              | Information that enables customers to re-route based upon current conditions                                                          |
| During the Crossing         | Using our facilities
                              | Navigating through our facilities
                              | Measuring time to cross, average speed, roadway capacity availability, etc.                                                             |
| After the Crossing          | Transaction processed
                              | No tag transactions and payment options
                              | Surveying customers on their service experience                                                                                       |
Collision Risk Management Program

Customer Service Performance
- Customer expectations for a safe crossing
- B&T commitment to safe crossings

Performance Management and Reporting Framework
- Safety as a top line business driver
- Collision statistics a key performance measure for external stakeholders

Risk Assessment and Evaluation Process
- Risk guide, process and tools
- Risk register

Business Risk Management Program
- Collisions are an identified B&T business risk
- Management of Significant and High risks

Safety Management Program
- Collision risk reduction is an aspect of ‘safe infrastructure systems’ approach

Risk Management and Assurance Program
- Ultimately, business risk reporting provides assurance of B&T efforts to reduce the risk of collisions

Asset Management Plans
- Collision risk profile
- Risk reduction plan
- Funding requirements
- Risk reduction performance

Collision Risk Management Program
- Risk-based analytical approach
- Activities to support the program – e.g. Technical Working Groups for ACRONBAT meetings

Safety Management Program
- Collision risk reduction is an aspect of ‘safe infrastructure systems’ approach

Asset Class Management Strategies
- Inspection and maintenance requirements
- Rehabilitation and renewal requirements

Integrated Technology Solutions
- GIS mapping of ‘hotspots’
- ITS – information for customers
- TRANSCOM – sharing data on congestion issues, ongoing projects, etc.

Operational Innovation
- CARS as a visualization interface for GIS data, collision data, congestion notices, VMS feeds, TRANSCOM feeds, etc.

Capital Program Management
- Delivering capital projects for collision risk reduction

Operational Innovation
- CARS as a visualization interface for GIS data, collision data, congestion notices, VMS feeds, TRANSCOM feeds, etc.

Liability Management
- Insurance as a risk treatment

Capital Development Process
- Capital approvals
- Maintenance approvals

Budget Development Process
- Capital approvals
- Maintenance approvals

Public Relations
- Website information on collision ‘hotspots’ at each facility

Asset Management Plans
- Collision risk profile
- Risk reduction plan
- Funding requirements
- Risk reduction performance
We Are Transforming our Culture

• A Back to Basics Assessment

• Strong Leadership at the top
  – Demonstrable Commitment by senior team to communicate, participate and support transformation efforts

• Engagement across all departments
  – Develop Desired Operating State
  – Establish Performance Management Framework

• Benchmarking with Peer Agencies
  – Use EAM principles to embed best practices
Thank You!

Mildred Chua
Vice President & Chief Financial Officer
MChua@mtabt.org
+1 (646) 252-7107

Wayne Francisco
Executive Advisor
wayne.francisco@ghd.com
+1 (704) 975-1106