NOTE: This Strategic Framework is a technical working draft developed in cooperation with municipal, transit, and security partners and is subject to revision based on changes to competition schedules, venue operations, security requirements and non-competition events.

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Key Terms and Definitions

**400-series Highway System** – A subset of provincially maintained highways that generally have higher design standards and speed limits of 100 km/h.

**Accessibility Directorate of Ontario (ADO)** – Manages the implementation of the Accessibility for Ontarians with Disabilities Act, 2005 by developing and enforcing accessibility standards.

**Accessibility for Ontarians with Disabilities Act (AODA)** – A law in Ontario that allows the government to develop specific standards of accessibility and to enforce them. The standards require the people or organizations identified in the standard to identify, remove and prevent barriers for people with disabilities in key areas of daily living.

**Accessible Taxicab** – A passenger vehicle that is an accessible vehicle and that is licensed as a taxicab by a municipality.

**Accessible Transportation** – Barrier-free transportation for people with disabilities, including people with mobility challenges.

**Active Transportation** – Non-motorized travel, including walking, cycling and rollerblading. The active transportation network includes sidewalks, crosswalks, designated road lanes and off-road trails to accommodate active transportation.

**Alternative Games Route Network** – Short-term contingency routes that will maintain reliable journeys if a primary GRN route is disrupted.

**Americas Paralympic Committee (APC)** – Governing body for the Parapan American Games, part of the International Paralympic Committee.

**Background demand** – non-Games related travel (e.g. commuters, freight, leisure trips)

**BIXI** – City of Toronto’s public bicycle sharing system.

**Bus Rapid Transit (BRT)** – Similar to light rail transit operating predominantly on protected right-of-way, separate from other traffic, but using advanced bus technology.

**Business as Usual (BAU) traffic conditions** – 2015 summer service levels and conditions that would be expected without the Games occurring.

**Business Improvement Areas (BIAs)** – Local commercial property owners and tenants work together to form areas which enhance the safety, look and feel of their neighbourhoods to attract more visitors and to draw new businesses to their area.
Core Games Route Network – The main required network of roads that will be used by Games accredited vehicles to transport the Games Family between the airport, the CIBC Pan Am/Parapan Am Athletes’ Village accommodation and the larger, most frequently-used venues.

Conventional Transit System – Public passenger bus and rail transportation services that typically operate on fixed routes and schedules, excluding specialized transit services.

Emergency Management Ontario (EMO) – A branch of the Ministry of Community Safety and Correctional Services, responsible for promoting, developing and maintaining emergency management programs and response plans.

Exurban – Geographic area outside the urban and suburban areas of the GTHA.


Games or Pan Am/Parapan Am Games – The Pan Am Games from July 10-26th, 2015 and the Parapan Am Games from August 7-14th, 2015 scheduled to take place in the Greater Golden Horseshoe.

Games Family – Pam Am/Parapan Am athletes and team officials; International federations and dignitaries; Technical officials; Accredited media, including press and broadcast; Games partners who provide sponsorship and marketing.

Games Mobility Hubs – Key points of interchange to existing transit services, the rapid transit network and transit services to Games venues.

Games Route Network (GRN) – A series of roads linking CIBC Pan Am/Parapan Am Athletes’ Village, Games venues, Toronto Pearson International Airport, satellite accommodation and Games Family accommodation to provide predictable and reliable travel for Games Family.

Games-time – The period of time in which the Pan Am/Parapan Am Games take place and the different travel patterns that will occur during the event (including torch relay).

Games Traffic – Demand on the road network resulting from Games Family, spectators and Games workforce.

Games Transit Network (GTN) – A transit network which provides clear linkages to event venues.

Games Workforce – Accredited TO2015 staff, contractors and volunteers that support the operation of the Games. There will be approximately 17,500 volunteers for Pan Am Games and 13,000 volunteers for Parapan Am Games.
GO Transit – A regional public transit system for the Greater Toronto and Hamilton Area, with rail and bus routes extending to communities across the Greater Golden Horseshoe.

Greater Golden Horseshoe (GGH) – The geographic area of Southern Ontario, which lies at the western end of Lake Ontario with outer boundaries stretching south to Lake Erie and north to Georgian Bay.

Greater Toronto Airports Authority (GTAA) – Responsible for the operation and maintenance of Toronto Pearson International Airport – Canada’s largest and busiest airport.

Greater Toronto and Hamilton Area (GTHA) – The metropolitan region encompassing the City of Toronto, the four surrounding Regional Municipalities (Durham, Halton, Peel and York) and the City of Hamilton.

Gross Venue Capacity - Total spectator capacity of a venue.

High-Occupancy-Vehicle (HOV) Lanes – A roadway lane designated for use only by vehicles with a specified minimum number of occupants, usually two or three. Most HOV lanes allow bus access and some allow taxi, bicycle, or vehicles with “green” license plates.

International Paralympic Committee (IPC) – Governing body for the Parapan Am Games.

Integrated Security Unit (ISU) – The ISU was established and is led by the Ontario Provincial Police and consists of seven other partner municipal police services which are collectively tasked with leading the security coordination and planning for the 2015 Toronto Pan Am/Parapan Am Games. The ISU Mission Statement is to ‘Provide a safe and secure environment for the conduct of the Toronto 2015 Pan Am/Parapan Am Games while maintaining an open, accessible and authentic experience for athletes and attendees; aiming to minimize disruptions to residents, businesses and visitors’. The ISU partner services include: Durham Regional Police Service, Halton Regional Police Service, Hamilton Police Service, Niagara Regional Police Service, Ontario Provincial Police, Peel Regional Police, Toronto Police Service, York Regional Police.

Metrolinx – Organization that plans and delivers regional transportation in the Greater Toronto Hamilton Area (GTHA); operating divisions and programs include: GO Transit, regional rail and bus services, Union Pearson Express, PRESTO, Smart Commute and the Transit Procurement Initiative

Mobility Aid – Refers to devices used to facilitate the transportation, in a seated posture, of people with disabilities.

Mobility Assistive Device – Refers to a cane, walker or similar aid.

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**Multi-Party Agreement (MPA)** – The Pan Am Games Multi-Party Agreement (MPA) sets out the service and funding responsibilities of various Games partners, including the Government of Canada, Government of Ontario, Canadian Olympic and Paralympic Committees, the City of Toronto and other municipalities and venue owners.

**Municipal Service Agreement (MSA)** - As contemplated in section 19.1 d of the MPA, a Municipal Service Agreement defines funding responsibility and expectations for municipal services required for Games purposes which are incremental to the level of service normally provided by a municipality.

**Net Venue Capacity** – Spectator capacity for a venue after removing 20% of Gross Venue Capacity for Games operations.

**Ontario Provincial Police (OPP)** – The provincial police service for the Province of Ontario.

**Pan Am/Parapan Am Games Secretariat (PPAGS)** – Provincial government body responsible for financial oversight, cross-government coordination and delivery of provincial responsibilities for the Games.

**Pan American Sports Organization (PASO)** – The international organization which represents the National Olympic Committees of the North American and South American continents for the Games.

**Pan Am/Parapan Am Travel Demand Model (PANDM)** – A multi-modal model that can provide predictive traffic volumes for all four groups of travellers, including Games Family, spectators, Games workforce and background traffic.

**PATH Network** – Toronto’s underground pedestrian network.

**Pan Am/Parapan Am Transportation Team (PATT)** – The team established by the Games key transportation partner organizations, including executive members of these organizations and the members of the senior technical advisory team that supports them. The PATT members include: Ministry of Transportation, Pan Am/Parapan Am Games Secretariat, Toronto 2015, Integrated Security Unit, Accessibility Directorate of Ontario, Toronto Police, Metrolinx, Toronto Transit Commission, City of Toronto, City of Hamilton and 22 other municipalities.

**PRESTO** – An electronic, reloadable fare card for convenient fare payment on GTHA transit systems and in Ottawa on OC Transpo.

**Priority Lanes** – Comprised of one existing lane on a multi-lane road that is set aside for certain vehicle types and separate from regular traffic. Vehicles that are candidates as priority vehicles include accredited Games Family vehicles, transit vehicles, and HOV general users.

**Road Races** – Games competition events that take place on the road network; including: marathon, race walking, triathlon, road cycling and roller sports.
Service Level – The measurement of performance of a transportation system in meeting overall goals which could include measures related to capacity, traffic flow, and safety.

**Smart Commute** – A program of Metrolinx and the municipalities in the GTHA that works with employers to ease gridlock, improve air quality and reduce greenhouse gas emissions while making commuting less expensive and more enjoyable.

**Specialized Transit** – An accessible, demand responsive, and flexible transit system that provides door-to-door service for persons with disabilities who are unable to use the conventional transit system.

**Spectators** – People that attend a Pan Am/Parapan Am Games hosted event, includes ticketed and non-ticketed competition and non-competition events.

**Strategic Framework** – The Pan Am/Parapan Am Games Strategic Framework for Transportation.

**Toronto 2015 Pan Am/Parapan Am Organizing Committee (TO2015)** – The Games organizing committee for the Pan Am/Parapan Am Games.

**Toronto Transit Commission (TTC)** – A public transportation agency that operates transit bus, streetcar, and rapid transit services in Toronto.

**Transportation Demand Management (TDM)** – The application of strategies, interventions and policies to reduce travel demand or to redistribute this demand in the transportation system. For example, marketing and communication strategies and programs, traveller information and advice and to promote behavior change and modal or time shifts.

**Unified Transportation Coordination Centre (UTCC)** – A facility for co-locating Games transportation partners to coordinate operational and information activities during the Games.

**Venue Games Route Network** – Routes to more minor or distant venues. A number of these routes will be in use for only part of the Games period, corresponding to operations at respective venues.

**Venue Transportation Working Group (VTWG)** – A group led by TO2015 at the venue level to cooperatively plan and deliver transportation operations around a venue. Membership on each group includes TO2015, region, municipality, local and regional transit providers, MTO, ISU, local police, fire and emergency services.
1. READY!

As a region, we will ensure the Games run smoothly – Games Family and spectators will get to and from venues safely, reliably, and on-time. We understand the challenges. Working together, we will showcase an integrated transportation network that is ready for the world’s stage.

IN THIS SECTION:

- A governance framework setting out roles and responsibilities
- The benefits of success, and challenges to be overcome
- An overview of the Games, the venues and competition schedule
- Existing transportation network conditions and constraints

1.1. Introduction

In 2015, Toronto will host the XVII Pan American Games and the V Parapan American Games (together as “the Games” or “Toronto 2015”), a celebration of sport and culture from nations across the Americas. The Games will be the largest ever Pan Am/Parapan Am Games and the largest multi-sport event ever held in Canada, with 7,700 athletes from 41 nations, 51 competitive sports, and 1.4-million ticketed spectators at over 500 sessions.

“Let’s Go!” is the theme behind the Strategic Framework for Transportation (“the Strategic Framework”) for the Games, a call to action to ensure an positive transportation experience for Games Family (athletes, team officials, accredited media, dignitaries and Games’ sponsors), spectators, Games workforce, other fans, visitors, residents and businesses. The Strategic Framework’s theme complements the Toronto 2015 story “United We Play,” and it reflects key Games themes of extraordinary spirit, legacy building, accessibility and sustainability.

1.1.1 The Strategic Framework

Purpose and Objectives

The development of the Toronto 2015 Pan Am/Parapan Am Games Strategic Framework for Transportation is the first phase in transportation delivery for the Games. It provides a framework of policies and strategies to guide planners, decision-makers and the public in supporting effective Games-time transportation. Its objectives are to:

- Set the context and describe the challenges for Games-time transportation;
- Establish concepts and strategies to meet Games-time transportation needs;
- Provide input for more detailed planning and refinement of concepts and strategies; and,
- Establish next steps and frameworks for transition from planning to operations.

Development of the Strategic Framework was led by the Ministry of Transportation, Ontario (MTO) with coordination, engagement, and input from the Pan Am/Parapan Am Transportation Team (PATT) members, who are identified in Section 1.1.2. It followed an iterative process, as shown in Exhibit 1 with consultation and review by PATT members at each step.

**Exhibit 1: Strategic Framework for Transportation Process**

Exhibit 1 Description: Iterative development and review carried out by Executive Table and three PATT members (Steering Committee, Program Team and Working Groups). Three draft versions were developed: version 1 in April 2013, version 2 in July 2013 and version 3 in August 2013. Final Strategic Framework for Transportation has been developed in February 2014.
What’s In The Strategic Framework?

This document identifies concepts and strategies to guide the development of Games transportation operations in consultation with PATT members, service providers, and other network operators during the transportation delivery planning phase. Exhibits and tables reflect the most recent Pan Am and Parapan Am sport competition schedule available.

All figures and diagrams in this document are accurate as of February 2014 and are subject to change.

Venue Transportation Profiles are included in Volume 2 of this Strategic Framework to serve as a reference guide during venue-level planning.

The Strategic Framework is organized into three sections:

**READY:** This section outlines the organizational structure for Games transportation delivery, provides background on the Games, summarizes the existing transportation system, and presents preliminary projections of Games-time travel demand.

**SET:** This section establishes the overall Games transportation concept, identifies the client groups, and outlines objectives, needs, and strategies for Games-time transportation in each topic area.

**GO:** This section provides a framework for the delivery path and guides the transition from planning to Games-time operation.

Transportation Commitments

The bid book submitted on behalf of the Games partners makes specific commitments regarding Games transportation to be delivered through the Strategic Framework for Transportation, as summarized below:

**Overall Transportation Commitment**

All accredited athletes and officials will be provided with safe, secure and reliable transportation services that ensure timely delivery to and from all accommodations and Games venues.

**Airport Welcome Services**

Most Games clients are expected to arrive at Toronto Pearson International Airport where they will receive expedited immigration and customs services and then moved swiftly to the Pan American Village (The Pan American Village is now known as the CIBC Pan Am/Parapan Am Athletes Village) and other accommodations along dedicated Pan American road and highway lanes (Pan American Lanes in the Strategic Framework for Transportation are referred to as “Priority Lanes”).
Easy, Cost Effective, Expedited Travel and Transportation

Toronto 2015 has two straightforward goals: to make it as easy and cost effective to get to the Games; and, to make it easy to get around during the Games.

Transportation In and Around Toronto

Active Transportation: All sport venues will feature, for example, generous bicycle rack areas to encourage spectators to pedal to the Games.

Getting Around Toronto

Pan American Games Transportation System: the Pan Am/Parapan Am Transportation Team (PATT) will undertake the planning and delivery of all Games transportation programs and services. This arrangement will create a single coordinating agency responsible for delivering integrated road, rail and bus transportation services. It will also ensure the effective management of transportation operations.

PASO Family: comprehensive and coordinated transportation services will be provided for the PASO family between the opening of the Pan American Village (The Pan American Village is now known as the CIBC Pan Am/Parapan Am Athletes Village) and three days after the close of the Games. All PASO officials, accredited athletes, team officials and technical officials will be provided with safe, secure and reliable transportation services that ensure timely delivery to and from all accommodations and Games venues. Priority transportation will be provided along designated Pan American Lanes (Pan American Lanes in the Strategic Framework for Transportation are referred to as "Priority Lanes") linking Toronto Pearson International Airport, the Pan American Village (The Pan American Village is now known as the CIBC Pan Am/Parapan Am Athletes Village), the host hotel and sport venues.

Accredited Individuals Games Transportation: all individuals who receive Games accreditation will have access to complimentary transportation services to allow them to travel among Games venues and throughout the Toronto region with convenience and confidence.

The draft Terms of Reference for the 2015 Games Transportation Program and the Ontario-Toronto Executive Table states that:

“…The Executive Table will work collaboratively towards the following transportation desired outcomes:

- A first-class experience for citizens and visitors attending sporting events as well as celebration and cultural events in the City of Toronto and the Games footprint area.
- A functioning and moving city.
- Successful delivery of defined and agreed upon transportation experiences for:
  - The Games Clients: athletes, officials, Games Family, media and spectators;
  - Municipal and Provincial Clients: visitors, public, business and critical public services;
• Games sponsors, workforce and volunteers.
• Positive public perception of transportation and related services leading up to, during and after the Games period.”

1.1.2 Roles and Responsibilities

Exhibit 2 illustrates the Pan Am/Parapan Am Games transportation organization that will plan and deliver the transportation requirements for the Games. There are three key structuring elements of Games Transportation Planning: Government Oversight and Approvals, the Pan Am/Parapan Am Transportation Team (PATT), and the PATT Working Groups.

Exhibit 2: Games Transportation Planning Organization Structure

Exhibit 2 Description: Games Transportation Planning Organization Structure groups.

• Government oversight / approvals include Municipal, Provincial and Federal organizations. Bilateral relationship with PATT members.
• PATT members include those mentioned in the body text and lists 25 Games municipalities: cities of Toronto, Hamilton, Markham, Mississauga, St. Catharines, Welland, and Oshawa; regions of York, Peel, Durham, Halton, and Niagara; counties of Dufferin, Simcoe and Haliburton; towns of Mono, Caledon, Milton, Ajax, Whitby, New Tecumseth, Innisfil, Oro-Medonte; Township of Minden Hills and Municipality of Dysart et al.


Government Oversight & Approvals
This group is comprised of the municipal, provincial, and federal governments that will have overall budgetary and policy decision-making responsibility.

Pan Am/Parapan Am Transportation Team (PATT)
The PATT has overall responsibility to deliver the client group travel needs and achieve the transportation goals set out for the Games, with reporting responsibilities to the government oversight and approval authorities. As co-chairs of the committee, MTO and TO2015 have the joint responsibility to ensure that the PATT delivers transportation solutions meeting the needs of the spectators and other Games’ client groups while maintaining the regular functions of the region.

The PATT includes more than 30 organizations from the Greater Golden Horseshoe, including provincial government departments, Games organizers, municipalities and transit agencies:

• Ministry of Transportation, Ontario (MTO): responsible for the overall coordination of spectator transportation services and the operation of the provincial highway network;

• Toronto 2015 Pan Am/Parapan Am Games Organizing Committee (TO2015): responsible for planning and delivering safe, secure and reliable transportation services for the Games Family (including athletes, technical officials, dignitaries, etc.). In most cases, these transportation services will be in official vehicles using the Games Route Network;

• Pan Am/Parapan Am Games Secretariat (PPAGS): accountable for financial oversight, cross-government coordination and delivery of provincial responsibilities;

• Integrated Security Unit (ISU): established and led by the Ontario Provincial Police, consisting of seven other partner municipal police services that are collectively tasked with leading the security coordination and planning for the 2015 Toronto Pan Am/Parapan Am Games. The ISU Mission Statement is to
“Provide a safe and secure environment for the conduct of the Toronto 2015 Pan Am/Parapan Am Games while maintaining an open, accessible and authentic experience for athletes and attendees; aiming to minimize disruptions to residents, businesses and visitors.”

- **Toronto Transit Commission (TTC):** operates the subway, Scarborough RT, streetcars and buses within the City of Toronto;

- **Accessibility Directorate of Ontario (ADO), Ministry of Economic Development, Trade and Employment:** manages implementation of the Accessibility for Ontarians with Disabilities (AODA) Act, 2005 by developing and enforcing accessibility standards;

- **Metrolinx:** plans and delivers regional transportation in the Greater Toronto and Hamilton Area (GTHA); operating divisions and programs include: GO Transit regional rail and bus services, Union Pearson Express, PRESTO, Smart Commute, and the Transit Procurement Initiative; and,

- **Games Municipalities:**
  - City of Toronto
  - City of Hamilton
  - York Region
  - Peel Region
  - Town of Caledon
  - City of Mississauga
  - Halton Region
  - Town of Milton
  - Niagara Region
  - City of St. Catharines
  - City of Welland
  - Simcoe County
  - Township of Oro-Medonte
  - Town of Innisfil
  - Town of New Tecumseth
  - Haliburton County
  - Township of Minden Hills
  - Municipality of Dysart et al
  - Dufferin County
  - Town of Mono
Responsibilities

As per the terms of the Pan Am/Parapan Am Games Multi-Party Agreement (MPA) and related Municipal Service Agreements (MSAs), local municipalities are responsible for:

- Working with MTO to deliver the Games Route Network (GRN);
- Managing and operating their respective road networks to support the Games, including the GRN, as well as managing transportation issues related to city celebration events, and spectator travel;
- Working with MTO to coordinate, plan, and deliver the Games Transit Network for spectator travel;
- Working with the Venue Transportation Working Groups (VTWGs) to manage traffic around venues;
- Appointing a Last Mile Coordinator for each site;
- Engaging with local cycling groups to manage bicycle parking where needed; and,
- Identifying and managing off-site parking.

PATT members are responsible for:

- Developing and maintaining their respective plans for delivering Games transportation on their portion of the transportation network;
- Contributing to the operation of the Unified Transportation Coordination Centre (UTCC);
- Managing their respective Games workforce and, where applicable, volunteer programs; and,
- Implementing Games-related wayfinding & signage on their part of the network for a consistent Games look across the region.

MTO will take a leadership role, working closely with the respective municipalities, to deliver the GRN. TO2015 will operate its Games Family vehicle fleets on the GRN to provide the required level of transportation service to and from each venue.

Exhibit 3 illustrates the overarching responsibilities of each of the partner organizations involved in planning and delivering transportation for the Games.
Exhibit 3: Transportation Roles and Responsibilities

**SYSTEM-WIDE LAYER**

**RESPONSIBILITY: Province (MTO)**

- Coordinate Games transportation across all modes.

**Deliverables:**
- Integrated Transportation Delivery Plan

**KEY ACTIVITIES**
- Integrate and coordinate all components of the Transportation Delivery Plan
  - Spectator transportation
  - Testing and readiness program
  - Games-time transit and traffic operations
  - Games Route Network
  - Transit ticket integration
  - Unified Transportation Coordination Centre
  - Wayfinding and signing

- Develop and manage transportation demand management and communications program
- Develop and manage Games demand forecasting and modelling

**LOCAL LAYER**

**RESPONSIBILITY: Regional and Local Municipalities and Transit Agencies**

- Last Mile connection between a spectator’s transportation node and the venue transportation perimeter. Local spectator transportation nodes include: designated transit stations, designated parking locations, walking and cycling routes, pick-up and drop-off zones.

**Deliverables:**
- Local Area Plans (LAPs)
- Transit Service Delivery Plans
- Traffic Operations Plans

**KEY ACTIVITIES**
- Coordinate and deliver spectator transit and enhanced traffic operations around venues
- Deliver and operate Games Route Network
- Deliver spectator last-mile operations
- Produce, install, and monitor supplementary signing and wayfinding for spectators
- Identify and manage off-site spectator parking (auto & bicycle)

**VENUE LAYER**

**RESPONSIBILITY: TO2015**

- Area from the venue security perimeter to the venue transportation perimeter.

**Deliverables:**
- Venue Transportation Operations Plans (VTOPs)

**KEY ACTIVITIES**
- Determine venue transportation operational areas for Games clients
- Determine venue transportation perimeter and all associated transportation requirements
- Request road closures and traffic measures on roads in vicinity of venues (in conjunction with the Venue Transportation Working Group)

Exhibit 3 illustrates the three layers of planning and delivering transportation for the Games and the responsibilities of the partner organizations involved. The Province (Ministry of Transportation Ontario) is responsible for the system-wide layer, and
involves coordination of Games transportation across all modes. The Integrated Transportation Delivery Plan is the main deliverable, and key activities include integrating all components of this Delivery Plan, developing and managing TDM and communications program, and developing and managing Games demand forecasting and modelling. The second layer, the Local Layer, is the responsibility of the Regional and Local Municipalities and Transit Agencies. Deliverables for the Local Layer are the Local Area Plans, Transit Service Delivery Plans and Traffic Operations Plans. Key activities of the Local Layer include coordinating and delivering spectator transit and enhanced traffic operations around venues; operating the GRN; delivering spectator last-mile operations; producing, installing and monitoring spectator wayfinding and signing; and identifying and managing off-site spectator parking. The innermost layer is the Venue Layer. Toronto 2015 is responsible for the Venue Layer, and the main deliverables are the Venue Transportation Operations Plans. Key activities for the Venue Layer are determining venue transportation operational areas for Games clients, determining venue transportation perimeter and associated transportation requirements, and requesting road closures and traffic measures in vicinity of venues.

Working Groups

Project-based working groups have been established to develop recommendations and guide transportation strategies for the development of the Strategic Framework, and will evolve into Delivery Working Groups. The preliminary directions established by the various working groups are integrated into these strategies and recommendations. The current working groups are:

- System Analysis and Modelling;
- Games Route Network;
- Transit Ticket Integration;
- Accessibility;
- Wayfinding and Signing;
- Transportation Demand Management;
- Integrated Communications;
- Incident Response and Emergency Management; and,
- Integrated Mapping.

TO2015 has also convened Venue Transport Working Groups to develop Venue Transportation Operations Plans for each venue and support site and Local Area Plans for each competition venue. These are being developed in conjunction with MTO, municipalities, transit operators, venue operators and emergency services and will continue to be reviewed and developed in more detail between now and 2015.
1.2. Planning for Success

The 2015 Pan Am/Parapan Am Games will be the largest event ever hosted in the Greater Golden Horseshoe, and one of the largest events ever held in Canada. It will be the marquee summer event in 2015, attracting hundreds of thousands of visitors and adding millions of new trips to the region's busy transportation network. This section provides an overview of why success is critical, and what our major opportunities and challenges are.

1.2.1 What’s at Stake?

In considering a framework for the success of Games transportation, several basic attributes and outcomes rise to the top: safety, efficiency, reliability, accessibility and sustainability.

Keep Sport on the Front Page

What matters most is that sport, not transportation, is the headline that people around the world will read and remember. Transportation at the Games should be consistent and dependable. It should simply work, so that athletes can focus on competing and spectators and the media can focus on the athletes.

Get Athletes to Their Scheduled Events On Time

Timely, reliable transportation for athletes and their support teams is absolutely essential. Some delays are inevitable, but they need to be kept within acceptable limits that avoid interfering with the preparation of the athletes or the conduct of their events.

Help Visitors Do What They Came To Do

Many visitors will have travelled a long way to experience the Games and enjoy what the Greater Golden Horseshoe has to offer. A successful transportation effort will help make sure that they remember the "magic moments" of the Games, the welcoming atmosphere and great customer service, and the friendly and helpful volunteers.

1.2.2 Legacies of the Games

Successfully hosting the Games will benefit our region’s residents for years to come. It will elevate the region’s reputation for hosting world-class events and help attract more of them, raise the level of cooperation and public spirit throughout the region, and leave the region a better place to live, work and play. More specifically, it could leave a number of transportation legacies.

The reality of this delivery context is that initiatives will be developed over a condensed timeframe and innovative, collaborative and robust solutions will emerge and be
implemented, providing a sound platform by which to consider continuing to use these initiatives and/or build from them post-Games.

The following are examples of the type of legacy opportunities available. It is not an exhaustive list, and it is recommended that the transportation delivery planning phase provides more concentrated effort to understanding and developing the legacy opportunities.

**Physical Legacies**

New transportation infrastructure to be completed on time for the Games will have a lasting effect on the region’s future growth.

- **Public transit** – The Union Pearson Express, a better rail link between Toronto Pearson airport and downtown Toronto, the extension of streetcar infrastructure into the West Don Lands on Cherry Street, a new GO Transit rail station at James Street North in Hamilton, and greater public awareness of recent investments;

- **Roads** – Priority Lanes will be a temporary measure to improve the reliability of travel for Games Family, transit, and high-occupancy vehicles during the Games. The proposed Priority Lane network will build upon existing HOV lanes and create a network for region-wide travel on major corridors such as the QEW/Gardiner and DVP/Highway 404 combinations. The Games provide an opportunity to test and assess the network impacts of a more complete network of designated lanes for transit and high-occupancy vehicles, while raising public awareness of potential benefits and effectiveness; and,

- **Active travel** – Initiatives to encourage active travel during the Games include expanded bicycle parking at some venues, improved sidewalk and bicycle linkages to transit, linking the Trans Canada Trail Ontario to key Games venues, and a cycling skills training strategy to promote cycling and increase safety. The proposed Pan Am Path would connect over 80 kilometres of trails across Toronto, and bring together residents, local organizations, artists, and businesses to create vibrant public spaces.

**Operational Legacies**

This includes strategies that will be employed for the Games to deliver transportation services more efficiently.

- **A regional coordination and communication system** – Providing better collaboration and communication among transportation agencies;

- **Improved customer experience** – Agencies working together more effectively to coordinate efficient operations and provide better information for travellers so they can experience a more seamless journey throughout the region;

- **Lessons from pilot/demonstration projects** – Demonstrated feasibility of innovative projects (e.g. road incident ‘Quick Clearance’ initiative, freight out-of-hours delivery, cross-boundary accessible travel); and,
• **Improved inter-agency operations** – Better coordination of routes, services and ticket integration; Pursuing additional common procurements; and, exploring other measures to reduce overlap and duplication.

**Behavioural Legacies**

This includes travel demand strategies that will be employed for the Games and, going forward, can continue to be used to encourage behaviour change. It also considers how the Games can provide an opportunity to build a positive image for people of all abilities and how improved accessibility can support this.

• **A lasting shift to sustainable transportation modes** – Increased use of public transit resulting from transportation demand management shifts or promotion of transit routes to Games venues and zones; making walking and cycling more attractive;

• **Transportation demand management** – Influencing travel behaviour and retaining this for ongoing use to spread or reduce demand (e.g. flexible working) through Smart Commute, public engagement and marketing and communication; and,

• **Accessibility** – Greater awareness of disability issues and heightened levels of confidence in the accessibility of the public transit network.

### 1.2.3 Key Challenges

Delivering upon the transportation commitments and achieving the goals and objectives for Games-time transportation will require an understanding of the key challenges, summarized in this section.

**A Summer of Celebration**

In an already busy summer calendar, the 2015 Pan Am/Parapan Am Games will be the largest event in both scale and duration in the Greater Golden Horseshoe. As such, it will have the greatest transportation needs and impacts. Minimizing the risks to reliable travel across the region requires us to clearly understand Games travel needs, predict and plan effective mitigation of impacts on residents and businesses, and coordinate effective responses.

**Scope and Scale of the Games**

The region has never hosted such a large event. There are 31 Games competition venues, 13 non-competition venues and 15 training sites spread across the Greater Golden Horseshoe from Welland to Oshawa, and from Lake Ontario to Georgian Bay. These venues are diverse in their transportation, land use, and travel demand contexts. This poses a significant challenge to the efficiency and reliability of travel.
Duration of the Games
The Pan Am Games will feature 20 consecutive days of events, followed by nine days of Parapan Am Games. Events will take place from early morning to late at night every day during the Games - a persistent level of intensity different from past major events in the region. Ensuring adequate capacity, workforce, and resources to respond to travel needs over such an extended period will be a major challenge, as will be the need to maintain a consistent quality of travel experience. Most venues will be active in the days leading up to, and following, scheduled competition days, with impacts on residents and businesses.

Road Races
The Pan Am and Parapan Am Games include 11 days of on-road sporting events that will close or restrict the use of major roads like Lake Shore Boulevard, making getting around a greater challenge for everyone. Race routes will need to be well planned and supported by comprehensive operational strategies, local engagement, and communications.

Travel Reliability
Over 23,000 Games Family members will need to move between villages, venues, accommodations, and other Games facilities – and they will need to get there on time. Achieving this on a congested road network will be a major challenge. Public understanding and support will be needed to create a Games Route Network (GRN) and other priority measures that allow will Games Family members to travel reliably across the region.

Moving Spectators
A central challenge will be the movement of more than 1.4 million ready-to-cheer ticketed spectators and many more at non-ticketed sessions and celebrations. The busiest day of the Games will see over 90,000 ticketed spectators on the move, participating in festivities across the region. Making this travel both easy and sustainable is a challenge. Complications include the fact that venues will not be operating as they usually do for other events (e.g. limited or no parking), and the fact that many visitors will be unfamiliar with the region and its transportation system, as well as the venues themselves.

Getting to Work
Members of the Games workforce will need to move to and from various sites, and will face constraints including parking and access restrictions. They will need public transit options and other travel alternatives.
Supporting Business-as-Usual

Even with the added travel demands of the Games, the region needs to continue to operate normally. This will be possible only with strong transportation demand management strategies and public support.

1.3. The Games

Featuring 51 competitive sports, 7,700 athletes from 41 countries, and an estimated 1.4 million ticketed spectators, the Games will be a massive celebration of sport and culture.

The XVII Pan American Games will run from July 10 to 26, 2015, while the V Parapan American Games will run from August 7 to 15, 2015. The Pan American Games are overseen by the Pan American Sports Organization (PASO) while the Parapan Am Games are overseen by the Americas Paralympic Committee (APC). Both events are being locally organized by the Toronto 2015 Organizing Committee (“TO2015”).

The Pan Am and Parapan Am Games are held every four years, generally in the year preceding the Summer Olympic Games. The competitive program for the Pan American Games generally includes all the sports, disciplines, and events of the Summer Olympic Games and also includes non-Olympic sports. The Parapan American Games features qualifying events for the Summer Paralympic Games.

The Games have grown significantly from approximately 2,500 athletes at the first Pan Am Games in Buenos Aires in 1951 and 1,000 athletes at the first Parapan Am Games in Mexico City in 1999 to approximately 7,700 athletes expected at the 2015 Pan Am and Parapan Am Games in Toronto.
Exhibit 4 lists (along with pictograms) the competitive sports featured during the Pan Am and the Parapan Games. The 28 Olympic sports are: Aquatics, Archery, Athletics, Badminton, Basketball, Boxing, Cycling, Equestrian, Fencing, Field Hockey, Football/Soccer, Golf, Gymnastics, Handball, Judo, Kayak, Modern Pentathlon, Rowing, Rugby, Sailing, Shooting, Table Tennis, Taekwondo, Tennis, Triathlon, Volleyball, Weightlifting, and Wrestling. The 8 Non-Olympic sports are: Baseball, Bowling, Karate, Racquetball, Rollersports, Softball, Squash, and Waterski. The 15 Parapan Sports are: Aquatics, Athletics, Wheelchair Basketball, Boccia, 5-A-Side Football, 7-A-Side Football, Goalball, Judo, Powerlifting, Table Tennis, Wheelchair Tennis, Sitting Volleyball, Archery, Cycling and Wheelchair Rugby.
1.3.1 Venues

Ceremony and Competition Venues

A total of 33 ceremony and competition venues have been identified for the Games, spread across the Greater Golden Horseshoe. Exhibit 5 provides a map of these venues. The venue codes are referenced in Exhibit 6, which provides detail on events and spectator capacity (the net venue capacities shown are subject to change as planning advances). Some existing venues will have different names during the Games - these are indicated in parentheses in Exhibit 6.

At built venues, current operations experience provides a foundation for Games planning; at new-build venues, test events will be important to evaluate and adjust planning for Games-time. The Parapan Am Games will feature a smaller footprint resulting from fewer venues (ten, plus two road courses) and competitive events (15).

A range of spectator capacities are planned at Games venues, with many smaller venues with fewer than 2,000 seats, several moderate-sized venues under 10,000 seats, and five large venues with over 10,000 seats. Pan Am Ceremonies Venue (45,000 gross capacity) is the largest venue, which will be used for the Pan Am Opening Ceremony and Closing Ceremony. Other large venues include the CIBC Hamilton Pan Am Soccer Stadium (22,500 gross capacity), the Pan Am Cross-Country Centre (10,000 gross capacity), the CIBC Pan Am/Parapan Am Athletics Stadium (12,500 gross capacity), and Exhibition Stadium (22,000 gross capacity).

For the purpose of Games transportation planning, the net spectator capacity of each venue is estimated to be the gross venue capacity minus 20% for Games Family and operational needs.

Non-competition Venues

Non-competition venues in downtown Toronto include the CIBC Pan Am/Parapan Am Athletes’ Village, Pan Am Games Family Hotel at Westin Harbour Castle, the Parapan Am International Broadcast Centre at CBC and the Parapan Am Games Family Hotel and Parapan Am Main Press Centre at the Sheraton Centre Toronto Hotel.

The Main Media Centre during the Pan Am Games is located within CIBC Pan Am Park at Exhibition Centre.

Toronto Pearson International Airport is the Official Welcome Partner and Official Supplier of Airport Services for the Games.

Competition venues that are far from the Athletes’ Village will have local satellite accommodations in New Tecumseth, Mono, Dysart et al and St. Catharines.

Training Venues

A total of 15 training venues have been identified across the Greater Golden Horseshoe.
Venue Groupings

For functional analysis, planning, and operational purposes, the Games venues can be divided into groups. For instance, several geographic zones are being used by TO2015 to help organize venue planning by municipality and geographic area:

- **CIBC Pan Am Park**;
- **Downtown** – includes the CIBC Pan Am/Parapan Am Athletes’ Village and all other venues in downtown Toronto other than CIBC Pan Am Park;
- **West** – includes venues in Etobicoke, Mississauga, Hamilton, Milton, and Niagara Region;
- **North** – includes venues at York University, Caledon, and north of the Greater Toronto and Hamilton Area; and,
- **East** – includes venues in Scarborough, Markham, and Durham Region

Venues can also be grouped by urban typology to provide aggregate statistics or data:

- **Downtown Toronto** – CIBC Pan Am Park and venues located downtown;
- **Hamilton and suburban** – venues located outside downtown Toronto but within urban areas of the Greater Toronto and Hamilton Area (GTHA); and,
- **Exurban** – venues located outside urban areas.
Exhibit 5: Pan Am/Parapan Am Games Competition Venues
## Exhibit 6: Pan Am/Parapan Am Games Competition and Ceremony Venue Details

<table>
<thead>
<tr>
<th>Zone</th>
<th>Venue Code</th>
<th>Venue</th>
<th>Municipality</th>
<th>Net Venue Capacity</th>
<th>Pan Am Sports/Ceremonies</th>
<th>Parapan Am Sports/Ceremonies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone: CIBC Toronto Pan Am Park</td>
<td>EPS</td>
<td>Exhibition Stadium (BMO Field)</td>
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<td>Rugby Sevens</td>
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<td></td>
<td>EXC</td>
<td>Exhibition Centre Hall A</td>
<td>Toronto</td>
<td>2,800&lt;br&gt;1,600&lt;br&gt;800</td>
<td>Basketball&lt;br&gt;Handball, Roller Sports (Artistic)&lt;br&gt;Squash, Racquetball</td>
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<td>LKS</td>
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<td>Triathlon, Race Walk</td>
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<td>OPW</td>
<td>Exhibition Centre Hall C (Direct Energy Centre)</td>
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<td>Open Water Swimming, Marathon, Waterski, Wakeboard, Cycling (Road)</td>
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<td>PBV</td>
<td>Lakeshore Stadium</td>
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<td>Beach Volleyball</td>
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<td></td>
<td>TCO</td>
<td>Ontario Place West Channel</td>
<td>Toronto</td>
<td>6,400</td>
<td>Gymnastics, Volleyball (Indoor Finals)</td>
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<tr>
<td>Downtown</td>
<td>NPS</td>
<td>Nathan Phillips Square - Parapan Am Closing Ceremony**</td>
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<td>1,600</td>
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<td>Closing Ceremony</td>
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<td>PAD</td>
<td>Pan Am Ceremonies Venue</td>
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<td>Opening Ceremony, Closing Ceremony</td>
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<td>PAF</td>
<td>Pan Am/Parapan Am Fields (University of Toronto Field Hockey)</td>
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<td>1,600</td>
<td>Field Hockey</td>
<td>Football (5-a-side, 7-a-side)</td>
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## Venue Details

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<tr>
<th>Zone</th>
<th>Venue Code</th>
<th>Venue</th>
<th>Municipality</th>
<th>Net Venue Capacity</th>
<th>Pan Am Sports/Ceremonies</th>
<th>Parapan Am Sports/Ceremonies</th>
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<tr>
<td></td>
<td>RCY</td>
<td>Royal Canadian Yacht Club</td>
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<td>Sailing</td>
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<td>RYA</td>
<td>Ryerson Athletic Centre</td>
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<td>2,400</td>
<td>Volleyball (Indoor Preliminaries)</td>
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<td>VAR</td>
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<td>Archery</td>
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<td>West</td>
<td>CEB</td>
<td>Centennial Park Pan Am BMX Centre (Centennial Park)</td>
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<td>1,600</td>
<td>BMX</td>
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<td>HAM</td>
<td>CIBC Hamilton Pan Am Soccer Stadium (Tim Hortons Field)</td>
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<td>Football/Soccer</td>
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<td>HEN</td>
<td>Royal Canadian Henley Rowing Centre</td>
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<td>Rowing</td>
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<td>MIS</td>
<td>Mississauga Sports Centre (Hershey Centre)</td>
<td>Mississauga, Peel Region</td>
<td>3,320</td>
<td>Judo, Karate, Taekwondo, Wrestling</td>
<td>Goalball, Powerlifting, Wheelchair Rugby</td>
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<td>MIV</td>
<td>Cisco Milton Pan Am/Parapan Am Velodrome (Mattamy National Cycling Centre)</td>
<td>Milton, Halton Region</td>
<td>1,600</td>
<td>Cycling (Track and Individual Time Trials)</td>
<td>Cycling (Track and Individual Time Trials)</td>
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<td>PLB</td>
<td>Pan Am Bowling Centre (Planet Bowl)</td>
<td>Toronto</td>
<td>120</td>
<td>Bowling</td>
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<td>Net Venue Capacity</td>
<td>Pan Am Sports/Ceremonies</td>
<td>Parapan Am Sports/Ceremonies</td>
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<tr>
<td>North</td>
<td>WFC</td>
<td>Welland Pan Am Flatwater Centre</td>
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<td>880</td>
<td>Canoe-Kayak (Sprint)</td>
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<td></td>
<td>CCE</td>
<td>Pan Am Cross-Country Centre (Will O'Wind Farm)</td>
<td>Mono, Peel Region</td>
<td>8,000</td>
<td>Equestrian (Cross Country Eventing)</td>
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<td>CEP</td>
<td>Caledon Pan Am Equestrian Park (Caledon Equestrian Park)</td>
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<td>3,200</td>
<td>Equestrian (Dressage, Eventing, Jumping)</td>
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<td></td>
<td>CTC</td>
<td>Canadian Tennis Centre (Rexall Centre)</td>
<td>Toronto</td>
<td>6,000</td>
<td>Tennis</td>
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<td>HRD</td>
<td>Hardwood Mountain Bike Park (Hardwood Ski &amp; Bike)</td>
<td>Oro-Medonte, Simcoe County</td>
<td>4,200</td>
<td>Cycling (Mountain Bike)</td>
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<td>MWW</td>
<td>Minden Wild Water Preserve</td>
<td>Minden Hills, Haliburton County</td>
<td>400</td>
<td>Canoe-Kayak (Slalom)</td>
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<td>TTS</td>
<td>Pan Am Shooting Centre</td>
<td>Innisfil, Simcoe County</td>
<td>280</td>
<td>Shooting (10 m, 25 m, 50 m, Trap and Skeet)</td>
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<td>YOR</td>
<td>CIBC Pan Am/Parapan Am Athletics Stadium</td>
<td>Toronto</td>
<td>10,000</td>
<td>Track and Field</td>
<td>Opening Ceremony, Track and Field</td>
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<td>East</td>
<td>ABL</td>
<td>Abilities Centre</td>
<td>Whitby, Durham Region</td>
<td>600</td>
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<td>Boccia, Judo</td>
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<td>Venue</td>
<td>Municipality</td>
<td>Net Venue Capacity</td>
<td>Pan Am Sports/Ceremonies</td>
<td>Parapan Am Sports/Ceremonies</td>
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</tr>
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<td>AJX</td>
<td>President's Choice Ajax Pan Am Ball Park (Audley Recreation Complex)</td>
<td>Ajax, Durham Region</td>
<td>6,400</td>
<td>Baseball, Softball</td>
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<td>ANG</td>
<td>Angus Glen Golf Club</td>
<td>Markham, York Region</td>
<td>1,600</td>
<td>Golf</td>
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<td>MAR</td>
<td>Markham Pan Am/Parapan Am Centre</td>
<td>Markham, York Region</td>
<td>3,200</td>
<td>Badminton, Table Tennis, Aquatics (Water Polo)</td>
<td>Table Tennis</td>
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<td>OBX</td>
<td>Oshawa Sports Centre (GM Centre)</td>
<td>Oshawa, Durham Region</td>
<td>2,400</td>
<td>Boxing, Weightlifting</td>
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<tr>
<td>PAC</td>
<td>CIBC Pan Am/Parapan Am Aquatics Centre and Fieldhouse</td>
<td>Toronto</td>
<td>4,960</td>
<td>Aquatics (Diving, Swimming, Synchronized Swimming), Fencing, Modern Pentathlon, Roller Sports (Speed)</td>
<td>Swimming, Sitting Volleyball</td>
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<td>UTS</td>
<td>University of Toronto Scarborough Tennis Centre</td>
<td>Toronto</td>
<td>800</td>
<td></td>
<td>Wheelchair Tennis</td>
<td></td>
</tr>
</tbody>
</table>

**Exhibit 5 Footnotes:**
* Existing venue names included in brackets where they differ from the TO2015 venue name.
**Nathan Phillips Square will also be a festival site during the Pan Am and Parapan Am Games. Capacity and schedule to be confirmed.
1.3.2 **Schedule**

**The Competition and Event Schedule**

There will be a total of 51 competitive sports during the Pan Am/Parapan Am Games. Most sports will last just a few days, but larger events such as the soccer/football tournament will take place over a longer period.

The competition schedule influences the magnitude, timing and location of Games travel demand, and therefore plays a large role in transportation planning. Overlapping events will create more challenges by creating larger peaks in travel demand.

The competition and event schedules by day for the 2015 Pan Am/Parapan Am Games are presented in Exhibit 7, Exhibit 8 and Exhibit 10. They are accurate as of February 2014, but adjustments are likely as approvals are sought from the governing bodies.

The opening weekend of the Games is expected to see the greatest number of ticketed spectators, with nearly 200,000 expected to attend events on Games days 1 and 2. However, from a transportation perspective, Day 5 is likely to be the busiest day, as spectator travel demand overlaps with higher weekday travel.

**Road Race Events**

The road race events during the Pan Am/Parapan Am Games will be one of the highlights of competition due to the high profile of the events and their accessibility to the community. However, they will also have significant localized impacts on the transportation network due to road closures, access restrictions, and spectator travel demand.

There will be 13 road race sessions over 9 days during the Pan Am Games, with events in marathon, race walking, triathlon, road cycling and roller sports. In addition, there will be 2 road race sessions over two days during the Parapan Am Games in road cycling, and time trials.

All road race routes and details are under development and most are planned for central Toronto. The routes are being developed with input from TO2015, the City of Toronto, ISU, and TTC to minimize impacts while still providing a challenging and attractive road race route.

The cycling time trial event is proposed to take place in Halton Region near the Cisco Milton Pan Am Velodrome, with the route being developed with input from TO2015, Region of Halton, the Town of Milton, Town of Oakville, MTO, ISU, and GO Transit.

Spectators will be allowed and encouraged along the race route, and most of each course will be a non-ticketed event. There will be increased spectator travel on transit and road networks over a larger geographic area.

Local impacts on traffic and residential and business access will likely occur during event times, and will include access restrictions for pedestrians and transit across the road race route. Transit diversions will be necessary along the route.
Other competitions will also occur while the road races are taking place. Impacts of road closures on venue access, including Games Route Network and accessible spectator access routes, will need to be identified and mitigated with alternative routes or operational procedures.

**Torch Relays and Ceremonies**

Other Games events to consider in transportation planning include the torch relays before the start of each of the Pan Am and Parapan Am Games, as well as the Opening Ceremony and Closing Ceremony.

As the Pan Am and Parapan Am Torch Relays pass through local communities, local crowds will impact the road network. The Pan Am Torch Relay will start on May 29 and travel until the Pan Am Opening Ceremony on July 10 at the Pan Am Ceremonies Venue (Rogers Centre). The Pan Am Closing Ceremony will also be held at the Pan Am Ceremonies Venue.

The Parapan Torch Relay will run from August 3 until the Parapan Opening Ceremony on August 7 at the CIBC Pan Am/Parapan Am Athletics Stadium. The Parapan Am Games Closing Ceremony is planned at Nathan Phillips Square.

Detailed plans will be developed as more information becomes available.

**Celebrations**

The Pan Am/Parapan Am Games will have live entertainment and celebration sites and other special events during the Games that will create additional demand on the transportation network. CIBC Pan Am Park and Nathan Phillips Square have been confirmed as Games festival sites.

Other cultural, civic, and community events are likely to occur throughout the region in conjunction with the Games. From a transportation perspective, coordination of these events by the respective organizers will be important in order to:

- Provide event promotion and travel advice to visitors and residents, to encourage their participation and sustainable travel choices;
- Identify additional services, if required, to meet travel demand;
- Manage network impacts and resources for traffic management, particularly if road closures and access restrictions are planned; and,
- Ensure that the travel requirements of other client groups, including Games Family, are not compromised.
## Exhibit 7: 2015 Pan American Games Event Schedule

<table>
<thead>
<tr>
<th>Event</th>
<th>Day of Week</th>
</tr>
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<tbody>
<tr>
<td>Aquatics</td>
<td>Tu</td>
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<td>Equestrian</td>
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<td>Handball</td>
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<td>Karate</td>
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<td>Modern Pentathlon</td>
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<td>Opening Ceremony</td>
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<td>Rowing</td>
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<td>Rugby Sevens</td>
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<td>Volleyball</td>
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<td>Waterski &amp; Wakeboard</td>
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<td>Weightlifting</td>
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### Exhibit 8: 2015 Pan American Games Event Schedule by Venue

<table>
<thead>
<tr>
<th>Zone</th>
<th>Venue</th>
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</table>
| CIBC Toronto Pan Am Park | Exhibition Stadium  
                             | Exhibition Centre Hall A  
                             | Exhibition Centre Hall B  
                             | Exhibition Centre Hall C  
                             | Lake Shore Stadium  
                             | Ontario Place West Channel  
                             | Chevrolet Beach Volleyball Centre  
                             | Toronto Course  |
| Downtown              | Pan Am Ceremonies Venue  
                             | Pan Am/Parapan Am Fields  
                             | Royal Canadian Yacht Club  
                             | Byrerson Athletic Centre  
                             | Varsity Stadium  |
| West                  | Centennial Park Pan Am BMX Centre  
                             | CIBC Hamilton Pan Am Soccer Stadium  
                             | Royal Canadian Henley Rowing Centre  
                             | Mississauga Sports Centre  
                             | Cisco Milton Pan Am/Parapan Am Velodrome  
                             | Pan Am Bowling Centre  
                             | Welland Pan Am Flatwater Centre  |
| North                 | Pan Am Cross-Country Centre  
                             | Caledon Pan Am Equestrian Park  
                             | Canadian Tennis Centre  
                             | Hardwood Mountain Bike Park  
                             | Minden Wild Water Preserve  
                             | Pan Am Shooting Centre  
                             | CIBC Pan Am/Parapan Am Athletics Stadium  |
| East                  | President’s Choice Ajax Pan Am Ball Park  
                             | Angus Glen Golf Club  
                             | Markham Pan Am/Parapan Am Centre  
                             | Oshawa Sports Centre  
                             | CIBC Pan Am/Parapan Am Aquatics Centre and Field House  |

**Legend:**
- One session
- Two sessions
- Three or more sessions
Exhibit 9: Expected Number of Ticketed Spectators by Competition Day and Venue, 2015 Pan American Games
## Exhibit 10: 2015 Parapan American Games Event Schedule

<table>
<thead>
<tr>
<th>By Event</th>
<th>PARAPAN AM GAMES DAY</th>
<th>CALENDAR DAY (AUG 2015)</th>
<th>DAY OF WEEK</th>
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<td>Closing Ceremony</td>
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<td>Opening Ceremony</td>
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<td>Swimming</td>
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<td>Wheelchair Tennis</td>
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<td>By Venue</td>
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<td>Ontario Place West Channel</td>
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<td>Pan Am/Parapan Am Fields</td>
<td>Ryerson Athletic Centre</td>
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<td></td>
<td>Varsity Stadium</td>
<td>Cisco Milton Pan Am/Parapan Am Velodrome</td>
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<td></td>
<td>Mississauga Sports Centre</td>
<td>CIBC Pan Am/Parapan Am Athletics Stadium</td>
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<td></td>
<td>Abilities Centre</td>
<td>Markham Pan Am/Parapan Am Centre</td>
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<td></td>
<td>CIBC Pan Am/Parapan Am Aquatics Centre and Fieldhouse</td>
<td>University of Toronto Scarborough Tennis Centre</td>
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</tbody>
</table>

**Legend:**
- One session
- Two sessions
- Three or more sessions
Exhibit 11: Expected Number of Ticketed Spectators by Competition Day and Venue, 2015 Parapan American Games
Parallel Events

The Pan Am/Parapan Am Games will join a world-class line up of annual events across the region, as shown in Exhibit 12. These events attract millions of attendees throughout the summer, and are complemented by hundreds of other events, festivals, concerts, and celebrations throughout the region.

Exhibit 12: Typical Schedule of Major Summertime Events in Toronto

Local professional sports franchises will continue to host home games during the Games period, including Major League Baseball's Toronto Blue Jays and the Canadian Football League's Toronto Argonauts at Rogers Centre. Major League Soccer's Toronto FC may continue to host games at BMO Field. The Molson Amphitheatre and Echo Beach, located adjacent to CIBC Pan Am Park, will continue to host concerts during the Games period.

One of the needs in advance of the Games will be to coordinate transportation planning between all the events that occur. These large events also create added demand on transit and road networks, but also offer spectators the chance to come early and stay late around their ticketed events; this can spread out travel demand and improve levels of service.

More importantly, where road closures are required for these events, coordination with the Games will be essential to minimize overall impacts on residents and businesses and to avoid conflicts with Games travel, especially the Games Route Network.

1.4. Transportation Context

There are more than 15 million auto trips and more than 2 million transit trips made every day in the GTHA. Our regional road network is congested during peak periods, and this will create challenges for the reliability of Games travel.

The following section provides an overview of transportation networks (Exhibit 13) and modes in the GGH, and identifies key constraints and opportunities that will influence the transportation strategies and plans for the Games.
Exhibit 13: Existing Highways and Rapid Transit
1.4.1 The Road Network

Highways

The Pan Am/Parapan Am Games will be set in a region with an extensive highway and arterial road network. The provincial highway network throughout the Greater Golden Horseshoe includes the 400-series and other provincial highways, which have seen extensive rehabilitation, renewal, and expansion over the past decade.

In Ontario, the 400-series provincial highways are multi-lane, divided expressways with a posted speed limit of 100 km/h. Most sections within the GGH provide at least six lanes of traffic. They have consistent design standards, connect urban areas across the region, and are essential links between communities in the GGH for day-to-day and intercity travel. The 400-series highways are also heavily-travelled goods movement routes with high truck volumes throughout the day.

There are also other provincial highways located within the region and outside of urban areas. Unlike the 400-series highways, these provincial highways may be undivided, have at-grade controlled or uncontrolled intersections, and have lower capacity.

The City of Toronto is responsible for two multi-lane, divided highways - the Gardiner Expressway and the Don Valley Parkway - which are the main auto access routes into central Toronto. Both corridors are congested during peak periods and before and after major downtown events.

Major highways that will serve important roles during the Pan Am/Parapan Am Games include:

- **Queen Elizabeth Way/Gardiner Expressway** – The QEW is the main east-west provincial highway from Niagara Falls to Toronto. The Gardiner Expressway is under the jurisdiction of the City of Toronto and forms the continuation of the QEW into downtown Toronto, where it connects with the Don Valley Parkway (also under the City's jurisdiction). The QEW was widened to eight lanes between Trafalgar Road and Guelph Line in 2010 to include HOV lanes, the longest HOV lane segment in the GTHA to date. The QEW carries 190,000 daily vehicles at its busiest point, while the Gardiner carries 228,000 at its busiest point on a typical weekday;

- **Don Valley Parkway/Highway 404** – The Don Valley Parkway (DVP), under the jurisdiction of the City of Toronto, is the main north-south highway serving downtown Toronto while the provincially-maintained Highway 404 directly connects to the DVP extending as far as Green Lane in Newmarket, connecting to Markham and eastern sections of York Region. The DVP is a six-lane highway carrying 180,000 vehicles at its busiest point south of Highway 401. Highway 404 opened the first HOV lanes in the GTHA in 2007 that extend from Highway 7 to Sheppard Ave. Highway 404 carries 300,000 vehicles daily at its busiest point;
Let's Go: Toronto 2015 Pan Am/Parapan Am Games Strategic Framework for Transportation

- **Highway 401** – Highway 401 is the main east-west provincial highway through the province of Ontario extending from Windsor to the Quebec border. Passing through Toronto, Highway 401 is the busiest highway in North America carrying 400,000 vehicles per day at its busiest point with a 14-18 lane express-collector configuration through most parts of the GTA. Highway 401 is also a major trucking artery and is considered by some metrics to be the busiest truck route in the world with up to 50,000 trucks per day;

- **Highway 427** – Highway 427 is a major north-south provincial highway connecting the Gardiner Expressway and QEW to Highway 7 in York Region. It serves as the main feeder to Toronto Pearson. Highway 427 is a 14 lane highway at its widest point, operating as a core-collector system, and is the second busiest highway in Ontario carrying 340,000 vehicles a day;

- **Highway 400** – Highway 400 is the highest capacity route between southern Ontario and northern Ontario. It is a provincial highway and is a key route for commuters travelling between Barrie, York Region, and the GTA. It also serves as a key route for recreational travel to access cottages in the Georgian Bay and Muskoka. Highway 400 carries 210,000 vehicles per day at its busiest point; and,

- **407 Express Toll Route (ETR)** – 407 ETR is a tolled east-west highway north of, and parallel to, both Highway 401 and the Queen Elizabeth Way. It begins in Burlington at the Freeman Interchange and extends 107 km north east to its terminus at Brock Road in Pickering. 407 ETR was designed as a bypass to the frequently-congested central portion of Highway 401.

MTO has introduced several initiatives to encourage more sustainable travel on provincial highways. Some examples include:

- High-occupancy-vehicle (HOV) lanes on the Queen Elizabeth Way, Highway 403, and Highway 404 to encourage carpooling and provide priority for transit vehicles;

- Bus-bypass shoulders on Highway 403;

- Expansion of carpool lots across the region to facilitate ridesharing; and,

- Improved traveller information including the renewal of overhead variable message systems.

**Arterial Roads**

Supplementing the highway network are the municipal and regional arterial roads that create a grid network across the region. These roads are under the jurisdiction of their respective municipalities, but generally provide consistent design standards. Roads outside downtown Toronto and historic urban cores are wider, have fewer intersections, and operate at higher speeds. However, like the highway network, arterial roads across the region are congested during peak periods.
Challenges and Constraints

Many of the region's roads and highways are operating near or over capacity during the afternoon peak period. This will be a challenge to provide reliable and on-time transportation during the Games.

Existing levels of delay are a significant constraint to be considered in transportation planning for the Games.

Exhibit 14 shows the level of service and delay experienced by existing GTHA traffic during the afternoon peak period. Red segments show where traffic demand exceeds road capacity, yellow segments show where volume approaches capacity, and green segments show where conditions are nearly free-flowing.

Main corridors in the region, including the Don Valley Parkway, Gardiner Expressway, Highway 401, Highway 404, and the Queen Elizabeth Way have very high traffic volumes with significant congestion. Arterial roads are also congested.

Aside from baseline congestion, several other constraints will need to be considered:

- Freight movements that could be impacted by Games-time transportation measures;
- Weekend travel demands that create congestion on major highways to cottage country, especially on Highway 400 and Highway 401, outbound on Friday afternoons and inbound on Sunday afternoons; and,
- Road restrictions that result from Games road events and cultural celebrations, as well as from non-Games activities.
Exhibit 14: 2015 Afternoon Peak Period Roadways Level Of Service
1.4.2 Conventional Transit

Transit Service Providers

**GO Transit** operates regional rail and bus services across the Greater Golden Horseshoe, serving much of the Games footprint. Rail service is provided on seven corridors with all-day, two-way service on the Lakeshore Line from Aldershot to Oshawa. GO Transit rail provides the capability to move over 1,500 passengers per train on its corridors.

GO Transit bus services operate throughout the region, providing point-to-point connectivity between major destinations.

GO Transit is a division of Metrolinx, which is delivering the Union Pearson Express (UP Express) rail service in advance of the 2015 Pan Am/Parapan Am Games.

**Toronto Transit Commission (TTC)** operates bus, streetcar, and subway service within the City of Toronto. The system is oriented around the TTC’s four subway/RT lines, which are fed by a grid of frequent, high-quality surface bus and streetcar routes. Connections between surface routes and the subway are seamless at many stations with off-street fare-paid loading areas.

The Yonge-University-Spadina and Bloor-Danforth Subways both offer high frequency, high capacity rapid transit service; each train can hold over 1,000 passengers and each line has the capability of moving over 25,000 people per hour, per direction.

Many of TTC’s busiest surface routes operate at frequencies of 10 minutes or better throughout the day. Overnight service is provided along several major corridors across the city.

**Hamilton Street Railway (HSR)** provides accessible conventional bus service throughout the City of Hamilton, including frequent service on the B-Line express bus service in the King-Main-Queenston corridor which runs adjacent to the CIBC Hamilton Pan Am Soccer Stadium. HSR also connects to GO Transit Lakeshore West service at Hamilton GO Centre Station. Burlington Transit connects downtown Hamilton to Aldershot and Burlington GO Stations.

**York Region Transit (YRT)/Viva** provides transit service in York Region, located north of the City of Toronto and will serve the York University venue cluster and the Markham Pan Am/Parapan Am Centre. By 2015, Viva’s first dedicated rapidways will be in operation between Yonge Street and Markham Centre/Unionville GO Station, providing fast and reliable rapid transit service. YRT/Viva buses connect to the TTC subway at Finch, Downsview, and Don Mills Stations.

**MiWay (Mississauga Transit)** provides service in the City of Mississauga and will serve the Mississauga Sports Centre. By 2015, the first stages of the Mississauga Transitway will be in operation to provide fast, reliable transit for MiWay and GO Transit buses in
the Highway 403 corridor. MiWay buses connect to the TTC subway system at Islington Station. Connections to GO Transit’s Lakeshore Line are made at Long Branch, Port Credit, and Clarkson Stations.

**Milton Transit** provides service within the Town of Milton, host municipality for the Cisco Milton Pan Am Velodrome. Transit services in the town provide connections to peak-period rail service and off-peak bus service on GO Transit’s Milton Line.

**Durham Region Transit (DRT)** provides service in the Region of Durham, including Ajax, Whitby, and Oshawa, which are the host municipalities for the Pan Am Ball Park, Abilities Centre, and Oshawa Sports Centre, respectively. Connections to DRT are available to GO Transit’s Lakeshore Line stations in Pickering, Ajax, Whitby, and Oshawa. Express bus service on the Highway 2 corridor, known as Pulse, was launched in June 2013, connecting to University of Toronto Scarborough.

Other local transit providers serving Games competition venues include:

- St. Catharines Transit: Royal Canadian Henley Rowing Centre
- Welland Transit: Welland Pan Am Flatwater Centre
- Brampton Transit: CIBC Pan Am/Parapan Am Athletics Stadium and Canadian Tennis Centre

Other local transit providers in the region that do not directly serve Games venues include Oakville Transit, Burlington Transit, Barrie Transit, Niagara Falls Transit and Niagara Region Transit.

Several venues are located outside of urban areas and are not currently served by public transit. They include Minden Wild Water Preserve, Hardwood Mountain Bike Park, Pan Am Shooting Centre, Caledon Pan Am Equestrian Park, and Pan Am Cross-Country Equestrian Centre.

**Recent Investment in Transit Infrastructure**

By 2015, significant results from recent investment in transit infrastructure will be realized in time for the Pan Am/Parapan Am Games. The following highlights some of this new infrastructure that could play a role during the Games.

1. **Union Pearson Express**: The Union Pearson Express, also known as UP Express, is a Games bid commitment and is scheduled for operation in advance of the start of the Pan Am/Parapan Am Games. It will provide frequent, accessible, express rail service from Toronto Pearson International Airport to Union Station in downtown Toronto.
2. Toronto Rocket Subway Trains: In 2011, the TTC introduced a new fleet of subway trains known as the "Toronto Rocket". The new, open-gangway design provides an increase in passenger capacity and provides enhanced features for accessibility, safety, and reliability. These trains are in operation on the Yonge-University-Spadina subway and will be delivered fully by 2015.

3. New TTC Streetcars: Streetcars play an essential role in downtown mobility; however, the current fleet is approaching the end of its operational life. Beginning in 2014, the TTC will place into service a new fleet of modern streetcars that will increase passenger capacity, improve service reliability and comfort, and, more importantly, introduce low-floor accessibility.

4. Union Station Revitalization: Toronto's Union Station, the busiest transportation hub in Canada, is undergoing a multi-year revitalization and expansion project. The project is scheduled to be substantially complete in 2015 with expanded GO Transit passenger concourses, improved circulation, and new retail uses. The TTC is also expanding its subway station with a second platform, to be completed by 2015.

5. Queens Quay Boulevard: In 2012, Waterfront Toronto, the City of Toronto, and TTC began the revitalization of Queens Quay West between Bay Street and Spadina Avenue to transform the street into a grand boulevard along the Central Waterfront. Set to be complete by 2015, the new street will feature a dedicated multi-use trail, expanded pedestrian and public space, and reconstructed TTC streetcar right-of-way.

6. Viva Rapidways: York Region, north of the City of Toronto, is currently constructing a series of Rapidways for its Viva bus rapid transit system to provide dedicated lanes for transit to bypass traffic congestion. The first stage, to be completed in 2014, will link Yonge Street to Markham Centre, site of the Markham Pan Am/Parapan Am Centre, via Highway 7.

7. Mississauga Transitway: Construction is well underway for the Mississauga Transitway, a bus-only roadway running parallel to Highway 403 in Mississauga, located west of Toronto. The first stage will open in 2014 and will provide a high speed east-west transit corridor for both GO Transit and MiWay buses and provide connections to other routes at Mississauga City Centre.

8. GO Transit Rail Expansion: A number of GO Transit rail expansion projects are underway across the region to increase the capacity and reliability of the regional rail network. This work includes rail grade separations, additional tracks, and station enhancements. GO Transit is also constructing a new rail station in downtown Hamilton at James Street North, which will be in operation in 2015 for the Pan Am Games.
9. York University Busway: Opened in 2009, the York University Busway is a bus-only roadway operating within a hydro corridor to improve transit operations between Downsview Subway Station and York University. TTC and YRT Viva buses operate on the busway, which bypasses heavily congested roadways in the area. Travel times improved dramatically on the busway, with one-way travel time of approximately 20 minutes.

Service Capacity

During the summer, transit ridership generally decreases throughout the region: schools are not in session, workers commute less due to summer vacations, and more people walk or cycle. In response, most transit systems in the Greater Golden Horseshoe adjust their services and capacities during the summer period; however, in some cases, capacity is maintained.

Transit ridership in the summer also varies depending on the scheduling of major events. For example, in most years, August ridership is higher than in July on GO Transit and on the TTC, when the Canadian National Exhibition and the Scotiabank Caribbean Carnival occur. Both events attract significant transit use. GO Transit and TTC adjusts service these and other major summer events.

In typical summer periods, GO Transit observes lower ridership, compared to non-summer periods, with about 4% fewer riders on the Lakeshore Line and 8% fewer on other rail lines. The Lakeshore Line sees a smaller decrease as a result of higher usage of the line in off-peak periods and for leisure travel during the summer.

GO Transit’s service adjustments during the summer are primarily related to the bus network. Weekday rail service remains the same and is supplemented on weekends with special service on the Barrie Line and to Niagara Falls on the Lakeshore West Line.

The TTC observes about 10% fewer riders across its system during the summer. Much of this decrease is attributed to lower post-secondary ridership, such as to York University, University of Toronto, and Ryerson University. Conversely, ridership increases are also seen during off-peak periods in the downtown as the system sees more tourist and vacation travel.

The TTC adjusts service hours in the summer to account for ridership changes and to accommodate construction on city streets. Total service hours are reduced by about 2%, excluding construction-related service changes. Morning peak period fleet utilization falls from about 98% to 90%. The result is a capability, from a fleet perspective, to provide...
increased service during Games-time. TTC is working to develop an operator and workforce strategy to deliver additional service during the Games.

A review of summertime ridership changes and service adjustments indicates that both the TTC and GO Transit have the ability to accommodate increased ridership from spectator demand and transportation demand management initiatives during Games-time. Key opportunities include:

- Spare fleet capacity of the TTC, providing capability to increase service where warranted; and,
- Off-peak service expansion on the GO Transit Lakeshore Line, providing significant capacity in that corridor.

These capabilities will inform the development of a Games-time transit strategy.

Challenges and Constraints

While TTC and GO Transit can accommodate substantial Games-time travel demand, a number of other transit network limitations need to be considered when planning Games-time transit to support scheduled competitive events:

- **Union Station** – the busiest transportation hub in Canada and is being expanded. Construction to improve TTC subway and GO Transit rail passenger capacity is scheduled to be substantially complete by 2015, but congestion during peak periods is still likely due to daily commuter travel.

- **Major downtown subway interchanges** – Bloor-Yonge Station and St. George Station – are congested throughout the day and particularly in peak periods, with each serving over 25,000 passengers in the busiest hour. The latter station is a major access point for Games venues located at University of Toronto St. George Campus.

- **Counter-peak GO Transit rail service** – Due to constraints in rail corridor, equipment and crewing availability, the ability to utilize GO Transit rail corridors other than the Lakeshore Line for Games-related services will be limited.

- **Hours of Operation** – Sunday subway service typically begins operation at 9:00 a.m., compared to 6:00 a.m. on all other days. Games events and sessions are scheduled for early Sunday mornings during the Pan Am and Parapan Am Games, and earlier service may be needed to transport spectators and workforce.

- **Reliability of transit** – in general, surface transit routes across the region operate in mixed traffic on congested corridors. This impacts the reliability and travel time of bus and streetcar routes. Temporary priority measures for transit may be needed near or at venues to keep transit vehicles moving. Several routes
serving Games venues operate on dedicated right-of-ways. These include the Spadina and Harbourfront streetcars that serve CIBC Pan Am Park, the York University Rocket, and Viva purple. Bus-only lanes are also present on a number of corridors throughout the region.

- **Peak period demand** – even with reduced summertime demand, peak period travel on transit will be congested on most routes.

- **Transit Service Gaps in Suburban Areas** – Many suburban venues are located far from rapid transit service and some do not have direct connecting local service to subway or GO Transit services at all times. Where service is available to suburban venues, it is generally infrequent. Addressing these service gaps will be important if transit is to serve a central role in Games transportation.

- **Pedestrian Environment** – The built form and pedestrian environment at some suburban locations, combined with indirect transit service, create challenges for linking transit to the front door of venues. Missing sidewalk connections, high volume and speed of traffic, and walking distances all need to be considered. Opportunities do exist for addressing these constraints and can be potential Games legacies — for example, providing new sidewalk connections to venues from nearby transit stops.

- **Venues with no local transit service** – As previously identified, some venues are not served by transit service and several are located in areas with no existing transit providers. The potential for transit access to these venues was analyzed and recommendations made on whether and how service should be provided is reflected in the target transit mode splits assigned to each venue.

Photo of construction site at Union Station in downtown Toronto.

Caption: Construction is well underway at TTC's Union Subway Station for a new second platform that will relieve congestion, improve passenger flow, and enhance connectivity to streetcars and GO Transit.

**Park and Ride**

Park and ride plays a central role in the daily function of the transit network in the GTHA, particularly for GO Transit and the TTC. For many transit users, the ability to drive to rapid transit stations is a major factor in their decision to travel by transit into central Toronto and across the region. From a Games perspective, the availability of park and ride could encourage the use of transit by spectators to travel to competition venues. Park and ride can also play a role in transportation demand management during the Games as a means to encourage carpooling or transit use to reduce demand on the roadway network.
GO Transit Park and Ride

Across its service area, GO Transit provides park and ride at 53 of its rail stations, with approximately 63,500 parking spaces. An additional 3,400 spaces are provided at 21 locations served by GO Transit buses. All but a limited number of parking spaces are provided free of charge; spaces at some stations are reserved for a monthly fee or for high occupancy vehicles. Expanding paid parking at GO Transit stations was identified in the Metrolinx Investment Strategy; however, the timeline for implementation is unknown.

Recent investment in the expansion park and ride facilities at GO Transit stations has increased parking capacity at many stations; however, utilization at most stations remains high. Park-and-ride lot utilization is highest on weekdays by commuters accessing GO Transit Rail service to travel across the region.

Non-summer weekday utilization of GO Transit parking at its rail stations is approximately 85%. During the summer, the utilization rate falls to about 76%, reflecting lower ridership. There is generally greater park-and-ride availability on the Lakeshore West Line than the Lakeshore East Line, with 77% and 87% utilization, respectively. Outside of daytime hours on weekdays, there is substantial parking capacity at park-and-ride lots in evenings and on weekends.

Exhibit 15 shows the location, size, and weekday daytime utilization of GO Transit park-and-ride lots throughout the GTHA, based on counts in July 2012. It shows some availability of park-and-ride capacity on the Lakeshore West Line west of Mississauga and at other stations across the system that could help accommodate Games travel needs.

TTC Park and Ride

The TTC provides approximately 13,850 park-and-ride spaces at 15 stations across the City of Toronto. Unlike GO Transit, however, paid parking is in effect at all lots on weekdays, with rates varying by location. Free parking is provided at most lots on weekends and statutory holidays.

Weekday utilization of TTC park-and-ride lots is steady throughout the year at about 75%. Most lots see high utilization, although some lots at stations with multiple lots see lower utilization than others primarily due to walking distance from station entrances. For example, the Warden north lot, with about 900 spaces, is only 25% utilized, while the south lot is 93% utilized. Exhibit 16 shows the location, size, and utilization of parking by station based on data from September 2012.
Similar to GO Transit, substantial capacity exists at TTC subway parking lots in evenings and on weekends. There are opportunities to leverage this capacity to encourage transit travel to competition venues, particularly where served by the subway or by direct bus connections from subway stations.
Exhibit 15: Average Summer GO Transit Park and Ride Capacity and Utilization
Exhibit 16: Average Summer TTC Park and Ride Capacity and Utilization
1.4.3 **Accessibility on Transit**

Over the past decade, the conventional transit network in the region has made significant gains in becoming more accessible. Most systems have accessible low-floor bus fleets that provide dedicated space for wheelchairs and other mobility devices. The TTC is increasing the number of accessible subway stations and low-floor streetcars are scheduled to enter service in 2014. All GO Transit trains are equipped with an accessible coach.

Specialized transit also plays a role in accessible transportation and is operated primarily by municipalities with supplemental contracted accessible taxi services. However, demand on these systems typically exceeds available capacity and alternative service delivery methods may be required to accommodate Games travel.

**Legislative Requirements**

Accessibility in Ontario is governed by the Accessibility for Ontarians with Disabilities Act (AODA), the Integrated Accessibility Standards (IASR, Ontario Regulation 191/11). The purpose of the AODA is to benefit all Ontarians by developing, implementing, and enforcing accessibility standards in order to achieve accessibility for Ontarians with disabilities with respect to goods, services, facilities, accommodation, employment, buildings, structures and premises on or before January 1, 2025. Some requirements of the AODA are required for implementation by January 1, 2017, such as conventional transit pre-boarding and on-board announcements; and, specialized transit fare parity, standard eligibility, and equivalent hours of service. The Games could accelerate implementation of some of these improvements. The Games also offer an opportunity to increase awareness and raise profile of accessible transportation in the region.

The accessible transportation policy for the Games will meet requirements of the AODA and provide additional services where needed for identified special requirements. This includes policies related to the availability of accessible transportation, customer service and information, and ensuring barrier-free pedestrian paths to and from venues.

**Existing Providers and their Challenges**

The Pan Am/Parapan Am Games will create significant demand for accessible transportation services, with unique challenges in accommodating spectator travel and other client groups, representing greater demand than is typically experienced on a day-to-day basis in the region. This is coupled with the need to accommodate regular travel
on regional specialized transit systems, many of which are in high demand with limited
supply. Working with local service providers to ensure quality of service is not
interrupted for regular users while accommodating Games travel demand will be
critically important.

Existing providers of accessible transportation services in the region include:

- Accessible conventional public transit buses and highway coaches (e.g. TTC, GO
  Transit, MiWay, Durham Region Transit, Hamilton Street Railway);
- Rail operators including GO Transit, TTC subway, and VIA Rail;
- Specialized public transit providers, such as TTC’s Wheel-Trans, Peel Region’s
  TransHelp, HSR’s DARTS, and York Region’s Mobility Plus;
- Social/human service and non-profit sector transportation services such as
  Canadian Blood Services;
- Vehicle-for-hire industry including sedan and accessible taxicabs and livery cabs;
- For-profit shuttle operations (e.g. non-emergency medical transportation,
  Wheelchair Accessible Transit, airporters);
- For-profit highway coaches including Greyhound, Canada Coach, Megabus; and,
- School bus operators.

Jurisdictional and operational challenges that exist for specialized transit in the region
include:

- Limited available capacity, although some specialized transit providers across the
  region may have marginal increases in available capacity during the summer, as
  a result of reduced school and commuter trips, and the ability of some customers
  to use accessible conventional transit on a seasonal basis;
- Limited service integration between municipalities, particularly for cross-boundary
  trips; and,
- Lack of centralized dispatch and trip booking.

Overcoming these challenges will be important to provide seamless travel for spectators
and other client groups.

Currently, wheelchair accessible taxi services in the City of Toronto are used extensively
under contract to the TTC’s Wheel-Trans service. This has resulted in limited availability
for other customers (or the public at large) for discretionary and on demand travel
purposes.
In terms of the accessible conventional bus and rail transit services, they too have limited capacity to accommodate wheelchairs/mobility devices. Accessible conventional transit buses typically accommodate up to two wheeled mobility aids (WMAs). In terms of GO Transit’s rail service, each accessible railcar has eight positions (plus one in the vestibule area of the railcar at the opposite entrance to the boarding entrance for a WMA on the lower level). Flip-up seats are available in this area for all customers to sit on, but signs indicating priority seating advise customers to give up these seats upon request.

All TTC subway cars provide level boarding with platforms for accessibility. Fully accessible T1 and Toronto Rocket cars, which make up over 60% of the fleet, provide specially designed wheelchair/scooter positions. There is one on each T1 car and two on each Toronto Rocket car.

Exhibit 17 provides an overview of accessible rapid transit stations and the service areas for specialized transit systems in the region.
Exhibit 17: Accessible Rapid Transit and Specialized Transit Providers
1.4.4 **Active Transportation**

Walking and cycling play varying roles in transportation across the region, ranging from highly utilitarian within urban contexts to predominantly recreational in suburban contexts.

Most municipalities in the Greater Golden Horseshoe recognize the benefits of active transportation and are implementing walking and cycling plans and improving infrastructure, safety, and education and awareness.

The areas with the highest background active transportation mode shares are within the region’s urban areas, such as central Toronto, Hamilton, and historic town centres. Downtown Toronto has the highest walk and cycle mode share in the region, with over 25% of morning trips to work on foot or by bike. This is reflected in the higher quality pedestrian environment in central Toronto, which features wider sidewalks, pedestrian priority intersections, and street furniture and streetscaping compared to most other areas in the region.

Dedicated cycling infrastructure, however, is limited to select corridors in downtown Toronto. Despite this, there are many cyclists in mixed-traffic on many downtown streets. Pan Am/Parapan Am venues, particularly at the University of Toronto and Ryerson University, are in areas with very high background walk and cycle mode shares. Bike share was recently introduced in downtown Toronto and provides an attractive mode of travel for trips within the service area.

Outside of central Toronto and in suburban areas, a higher proportion of active transportation trips are for recreational (versus utilitarian) purposes. Walking and cycling mode share is low, resulting from a combination of long trip lengths and inadequate infrastructure. Where available, active transportation infrastructure is focused on providing off-street trails and pathways; these represent an opportunity to provide regional connections for longer distance trips. Most Pan Am/Parapan Am venues, however, are located away from these regional pathways.

Pedestrian environments in suburban and exurban areas are also a challenge, because of wide roads with high speed traffic, limited pedestrian and cycling infrastructure, and longer travel distances between uses. These challenges need to be identified and addressed as part of detailed venue-level planning if walking and cycling are to play a role in Games transportation.
1.5. **Games-time Travel Demand**

During the Games, there will be increased travel on the transportation network by Games Family, spectators, visitors, and workforce. The following section describes the different client groups that will need to travel during the Games, as well as the impact of their movements in terms of travel times and travel costs.

### 1.5.1 Games Family Travel

Over 23,000 Games Family members are anticipated at the 2015 Pan Am/Parapan Am Games. These members will require timely, reliable and safe transportation to and from venues for the Games duration. Games Family members will travel on a designated Games Route Network (GRN) – a series of roads connecting all competition and non-competition venues, including the Athletes' Village and Satellite Accommodations. Traffic control measures will be implemented on the GRN to achieve reliable Games Family travel times, including traffic management, turn restrictions, traffic signal retiming, and designation of Priority Lanes. These measures are discussed in greater detail in Section 2.4.

The GRN will help provide more reliable travel for the Games Family; however, the corresponding reduction in network capacity to incorporate the GRN will cause increased congestion for other traffic. Strategies to mitigate traffic impacts will be addressed through detailed operational planning of the GRN during the Delivery Planning phase, including the use of transportation demand management (TDM), described more fully in Section 2.11.

### 1.5.2 Spectator Travel

The Games are anticipated to attract over one million spectators to the region from across the Greater Golden Horseshoe, Ontario, Canada, the United States, and around the world. Most spectators are anticipated to travel to the Games from southern Ontario, with a high proportion of local spectators, as shown in Exhibit 18.

Despite an extensive regional transit system, many spectators will still drive to attend the Games. This is a result of a transit system focused heavily on commuter travel, the dispersed pattern of spectator origins, and limited transit service at many Games venues. As a result, large spectator volumes are anticipated on the east-west corridors including the Queen Elizabeth Way, Highway 401, and Highway 403, with up to 2,500 spectator auto trips travelling in the peak hour on days of peak spectator activity.

Congestion on the regional highway system will make spectator travel challenging. It will be critical that efficient and reliable transit options for travel to venues are available to spectators to help alleviate road congestion. This will be a particularly difficult task considering the geographic spread of the venues and spectators, as well as the need to coordinate many regional public transit providers.
Exhibit 18: Distribution of Spectator Origins

Exhibit 18 Caption: The preliminary prediction of spectator origins for planning purposes is based on a number of factors, including proximity to Games venues and popularity of events. These will be refined as Games planning advances.

1.5.3 Games Workforce Travel

The Pan Am/Parapan Am Games workforce are the frontline workers ensuring the Games run smoothly and contributing to an enhanced spectator experience. The workforce will consist of approximately 17,500 volunteers during the Pan Am Games, 13,000 volunteers during the Parapan Am Games, as well as contractors and staff. Their movements to and from venues will add more trips to the highway and transit systems. Workforce members are anticipated to make shorter trips than spectators and will be more likely to travel using transit, especially in urban areas. Games workforce travel patterns will be different than those of spectators in terms of arrival and departure times, as workers will arrive at venues earlier and leave later. This will create additional transportation challenges that will need to be addressed – especially in areas with
limited transit service, particularly in suburban or exurban areas where service levels are reduced significantly during off-peak periods.

1.5.4 Travel Time Impacts

Increased auto travel on the region’s highway corridors due to spectator and Games Family travel will have an impact on travel times during peak times. Priority Lanes, a Games-bid commitment to provide reliable travel for athletes and Games Family, will reduce the capacity of some road corridors. Exhibit 19 shows the impact of Games travel demand and Priority Lanes on travel time, showing large increases on all corridors; travel times more than double on the Queen Elizabeth Way and Gardiner Expressway.

One of the tools available - and shown to be highly effective during other major sporting events around the world - is transportation demand management, or TDM. These are strategies that focus on to reduce trips, re-mode trips, or re-time trips to reduce travel demand during peak periods. During the Games, TDM will play a major role in managing travel demand and consequently, managing congestion and transportation impacts of Games travel. A conservative target of 20% shift in travel from TDM (past Games experience has shown a greater reduction in peak travel demand), as shown in Exhibit 19, could create a significant improvement - travel times are comparable to business-as-usual and in some instances, improved. Access to Priority Lanes by transit and high-occupancy vehicles would provide travel time benefits to more travellers and encourage transit use and carpooling during the Games.

The Games provide an opportunity - and the necessity - to test and implement aggressive TDM measures that have the potential to lead to lasting travel behaviour change. The TDM approach and potential strategies are provided in Section 2.11.

Exhibit 19: Predicted PM Peak Hour Times on Select Corridors

<table>
<thead>
<tr>
<th>Road</th>
<th>Travel Time (in minutes)</th>
<th>Business-as-Usual</th>
<th>With Games Demand and Priority Lanes (footnote 1)</th>
<th>With Games Demand and Priority Lanes and TDM Measures (footnote 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gardiner Expressway (Jameson Ave. to Hwy 427)</td>
<td></td>
<td>11</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>Queen Elizabeth Way (Hwy 427 to Bronte Rd.)</td>
<td></td>
<td>21</td>
<td>55</td>
<td>23</td>
</tr>
<tr>
<td>Queen Elizabeth Way (Bronte Rd. to Burlington St.)</td>
<td></td>
<td>21</td>
<td>50</td>
<td>21</td>
</tr>
<tr>
<td>Don Valley Parkway (Gardiner Expwy to Hwy 401)</td>
<td></td>
<td>30</td>
<td>60</td>
<td>30</td>
</tr>
</tbody>
</table>
### Travel Time (in minutes)

<table>
<thead>
<tr>
<th>Road</th>
<th>Business-as-Usual</th>
<th>With Games Demand and Priority Lanes (footnote 1)</th>
<th>With Games Demand and Priority Lanes and TDM Measures (footnote 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway 404 (Hwy 401 to Hwy 407)</td>
<td>10</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>Highway 401 (DVP to Morningside Ave.)</td>
<td>10</td>
<td>16</td>
<td>8</td>
</tr>
</tbody>
</table>

Exhibit 19 footnotes:
1. Travel times without Transportation Demand Management measures
2. Travel times with TDM measures resulting in 20% reduction in travel demand

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**Exhibit 19 Caption:** TDM measures have the potential to maintain business-as-usual travel times while accommodating additional Games related travel demand and transportation system impacts.

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### 1.5.5 The Day 5 Challenge

#### The Challenge: Pan Am Games Day 5

**Wednesday, July 15, 2015**

26 Scheduled Events plus Weekday Travel Demand: While Day 1 (Saturday) will have the greatest number of spectators, Day 5 poses a greater challenge from a transportation perspective as it will also overlap with weekday travel demand in the region.

Detailed traffic modelling has been conducted to better understand Games-time travel demands, their potential impacts, and the need for and benefits of interventions. This will allow PATT to plan strategies to keep traffic moving during the Games.

The traffic modelling tool is named the Pan Am/Parapan Am Demand Model (PANDM). The PANDM is able to estimate the combined impacts of background traffic (“Business-As-Usual” or “BAU” traffic) and Games traffic (spectators, workforce, Games Family) on the transportation network.

In order to demonstrate the potential impacts of Games travel demands on the road and transit networks, a profile of Day 5 of the Games (Wednesday, July 15, 2015) was developed.

Day 5 is anticipated to be a major test of the transportation strategy and the transportation network during the Games, with a combination of high weekday...
background traffic and some of the highest demands from spectators and Games Family. On that day, 26 events are scheduled including one session with two soccer matches (starting at 5:00 p.m. and 8:00 p.m.) at the CIBC Hamilton Pan Am Soccer Stadium (with a net spectator capacity of 18,000), tennis matches at York University, and gymnastics at CIBC Pan Am Park. Other overlapping sessions will attract between 500 and 6,000 spectators.

Traffic Impacts

A detailed hour-by-hour analysis of traffic on Day 5 was conducted to find major bottlenecks and problem areas and to better understand the scale and scope of TDM measures that will need to be implemented to keep traffic moving during the Games. Exhibit 20 shows that Day 5 Games traffic volumes are generally small compared to background traffic, reaching up to 600 vehicles per hour on the Queen Elizabeth Way (QE W) during the afternoon peak hour. (Traffic volumes on each road section are shown as a “bandwidth”, with background traffic in light green and Games traffic in dark red).

Exhibit 21 shows traffic delays during four different time periods on day 5 resulting from background traffic, Games traffic, and lane reductions on the GRN due to Priority Lanes for Games Family traffic. The exhibit shows that the largest challenge is congestion caused by the GRN lane reductions, and not the addition of Games traffic itself. During the games, delays will be worse than during a typical weekday rush hour, with the highest delays occurring on the QE W, Gardiner Expressway and Don Valley Parkway due to the absence of better alternative routes.

During these peak periods, Games related delays could be twice as high as those experienced on a regular weekday unless demand is relieved, at least partially, by TDM measures (see Section 2.11).
**Exhibit 20: Day 5 PM Peak Hour (4:00 p.m. to 5:00 p.m.) Volumes**

Exhibit 20 caption: During the peak hour on Day 5, Games related traffic represents a very small proportion of overall travel demand on the transportation network. However, with Priority Lanes and without TDM measures, travel delays are predicted to be severe.

**Transit Impacts**

No transit capacity issues are expected to arise from Games traffic on Day 5. Games-related travel will certainly intensify some existing capacity issues during peak periods at certain stations including the main transfer points of Union Station, Bloor-Yonge Station, and St. George Station. All three of these will be heavily used during the Games by spectators and workforce members as they travel to and from venues. While the total number of Games transit passengers is small compared to background ridership, Games traffic may have local impacts at these and other busy stations.

Bathurst Station, Kipling Station, Kennedy Station, and Downsview Station will see high spectator flows due to their role as Games Mobility Hubs where transfers between the subway and surface routes serving venues will take place. Games transit volumes at these stations are predicted to be small compared to daily ridership and unlikely to have major impacts. Surge ridership before and after events will create congestion but nothing that will exceed ridership levels experienced during other special events such as games or concerts.
Additional transit demand on GO Transit’s Lakeshore West Line from Union Station is expected for soccer matches in Hamilton. This demand will be accommodated by special additional train trips to serve the new James Street North GO Station in Hamilton. This will help manage capacity constraints on the Lakeshore West line, especially when spectator travel overlaps with commuter travel during the afternoon peak period.

**Exhibit 21: Day 5 Road Network Delays**

![Map of Day 5 Road Network Delays]

**Exhibit 21 A. MORNING PEAK (7:00 a.m. to 9:00 a.m.)**

The morning peak period on Day 5 will see increased travel times beyond business-as-usual on the QEW/Gardiner and DVP/Highway 404 corridors, in both directions, largely due to the implementation of Priority Lanes. This exacerbates existing background traffic delays. Games traffic contributes to a small part of this delay, largely from morning travel from Athletes’ Village to venues and training facilities.
Exhibit 21 B. MIDDAY (12:00 p.m. to 1:00 p.m.)

Travel delays in the midday on Day 5 are minimal, with only minor increases in travel times. These are also isolated in the QEW/Gardiner and DVP corridors and largely a result of lane reductions. Spare road capacity exists during the midday period.
Exhibit 21 C. AFTERNOON PEAK (4:00 p.m. to 5:00 p.m.)

During the afternoon peak period on Day 5, Games-related traffic will increase travel times, particularly in the westbound direction between Toronto and Hamilton reflecting travel to soccer matches at CIBC Hamilton Pan Am Soccer Stadium. The Games travel coincides with peak period commuter travel and coupled with lane reductions, exacerbates travel time increases.
Exhibit 21 D. EARLY EVENING (7:00 p.m. to 8:00 p.m.)

Congestion from the afternoon peak period extends into the early evening, with a greater impact from Games-related travel - a combination of Games Family returning to Athletes’ Village and central Toronto accommodations, spectators returning home from events, as well as spectators travelling to evening events starting after 7 PM.
2. SET!

This section is the playbook for Games travel. It identifies concepts and strategies for getting everyone to their events and venues on time, ready to compete, cheer, volunteer or work.

IN THIS SECTION:

- Identifying the Games client groups and their transportation needs
- The guiding principles and overall strategy for Games transportation planning
- Strategies to serve Games-time travel demands of key client groups using a variety of modes

2.1. Guiding Principles and Overall Strategy

2.1.1 Guiding Principles

The guiding principles for the Strategic Framework reflect the spirit and priorities of the partners responsible for planning and operating transportation for the Games. These principles help shape the Strategic Framework’s objectives and strategies:

**BE BOLD**
The Games are an opportunity to be bold in the way we think about moving around our region.

**CREATE A POSITIVE TRAVEL EXPERIENCE**
Games travel will be easy and understandable, building excitement and spirit.

**PROVIDE SAFE AND EFFICIENT TRAVEL**
Games transportation will be safe and efficient for athletes, officials, spectators, volunteers, businesses and visitors.

**KEEP THE NETWORK MOVING**
The Games will add demand to roads that are already busy, and will benefit from measures that minimize or mitigate impacts on daily traffic.

**SHOWCASE THE REGION**
Create opportunities to showcase the region to the world and build its reputation as an attractive location for international events.
DEMONSTRATE SUSTAINABILITY
Use existing transportation resources and infrastructure to the fullest extent, while expanding and encouraging sustainable and active travel choices.

ENSURE ACCESSIBILITY
The travel needs of people with disabilities will be considered in all aspects of Games transportation planning.

COMMUNICATE CLEARLY
Build support, awareness, and understanding of the Strategic Framework through effective communication, engagement, and collaboration.

BE COST EFFECTIVE
Maximize use of existing transportation infrastructure and services, and prioritize new investments that can provide lasting legacies and benefits.

DEMONSTRATE CAPACITY FOR INTER-AGENCY COOPERATION
Provide processes and frameworks for regional agencies to work together seamlessly and effectively.

CREATE LEGACIES
From lasting travel behaviour change to an enhanced capacity for hosting large events, the Strategic Framework will leave enduring legacies for the region.

2.1.2 Key Strategies

1. Understand the travel needs of the client groups and identify targets for spectator travel (Section 2.2)

Each client group’s unique travel needs during the Games must be understood. Achievable mode share targets for spectator transportation will guide planning for more efficient use of transportation network capacity.

2. Welcome the world with efficient and friendly arrivals and departures (Section 2.3)

Preparing for visitor arrivals and departures will ensure a warm welcome and a positive final impression.
3. Ensure reliable Games Family transportation with the Games Route Network and Priority Lanes (Section 2.4)

Helping Athletes and Games Family get to where they need to be, on time and reliably, is one of the biggest challenges of the Games. Establishing a Games Route Network (GRN) will be supported by Priority Lanes, where needed, that expedite the movement of Games Family members through congested locations.

4. Provide a transit-first approach to spectator transportation with the Games Transit Network (Section 2.5)

Transit will carry about half of all spectator trips during the Games. It will reduce traffic and parking around venues, and help contain demand on the greater road network. Transit use during the Games can contribute to lasting behaviour change.

5. Integrate accessibility into all aspects of Games transportation (Section 2.6)

An accessible Games means everyone can travel and cheer together. Measures will leverage investments in the accessibility of conventional systems while preserving the quality of specialized services for community residents.

6. Promote active transportation as a viable way to travel during the Games (Section 2.7)

Walking and cycling can play a major role at many Games venues, especially those that are reachable using existing networks in urban areas. Measures to improve walking and cycling to venues could reduce demand on road and transit networks.

7. Manage parking at and around venues for spectators and other client groups (Section 2.8)

There will be no spectator parking at many venues during the Games, including those where parking is usually available. Any available parking at or near the venue will be managed to minimize impacts on traffic and the surrounding community.

8. Provide wayfinding and signage to help travellers move around (Section 2.9)

With the Games spread across a large region, and with many visitors unfamiliar with both venues and access routes, a wayfinding and signage program for both roads and transit is essential to help travellers reach their final destinations.

9. Offer spectators seamless “last mile” access from the transportation system to their venue entrance (Section 2.10)

Easy navigation during the last part of spectators’ journeys, from parking spaces and transit stops to venue entrances, will be an essential part of the Games experience. The orderly and efficient movement of thousands of people will help keep spirits high.
10. Use transportation demand management strategies to keep the region functioning (Section 2.11)

Measures that shift the travel behaviour of residents and businesses will free up road capacity and avoid delay and frustration. Other measures will encourage Games spectators to make efficient and sustainable travel choices while creating a positive Games experience.

2.1.3 Targets for Spectator Travel

Mode share targets for spectator travel will guide transportation planning during the Games. The targets influence many elements of Games-time transportation including transit service levels, local area transportation planning, and parking supply.

Realistic and achievable mode share targets for spectator travel to and from Games venues (see Exhibit 22) will guide venue-level transportation planning for transit service, parking supply and management, and walking and cycling needs. The target levels are based on current travel patterns, the availability of parking at or near the venues, and the proximity and quality of transit services.

Mode share targets for transit (over 40%) are highest for venues in the City of Toronto, in recognition of the higher general transit use and greater available transit capacity. In suburban areas, transit targets of 20% to 30% can be achieved with high quality services. Lower targets for venues in the urban periphery reflect the reality of limited transit service in those areas.

Walking and cycling mode share targets are also highest in downtown Toronto, where there is a combination of dense, mixed land uses, walking- and cycling-friendly environments, and concentrated origins and destinations. Outside downtown, walking and cycling use will be more limited due to the distances spectators will be travelling and less-supportive built environments.

Implementation of the following elements has been assumed in setting the mode share targets:

- Robust travel information, before and during the Games, to help spectators plan their journeys;
- An exceptional transit experience with integrated ticketing, quality service, and helpful wayfinding and travel assistance;
- Temporary transportation infrastructure, where effective, to encourage or accommodate travel by more sustainable modes; and
- Management of on-site and off-site parking supply.
### Exhibit 22: Mode Share Targets by Venue/Cluster

<table>
<thead>
<tr>
<th>Zone</th>
<th>Venue/Cluster</th>
<th>Net Venue Capacity</th>
<th>Existing Transit Mode Share (footnote 1)</th>
<th>Transit Mode Share Target</th>
<th>Auto Mode Share Target</th>
<th>Walk/Cycle Mode Share Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown</td>
<td>CIBC Toronto Pan Am Park</td>
<td>34,400</td>
<td>46% (footnote 2)</td>
<td>55%</td>
<td>30%</td>
<td>15%</td>
</tr>
<tr>
<td>Downtown</td>
<td>Nathan Phillips Square - Parapan Am Closing Ceremony</td>
<td>1,600</td>
<td>50%</td>
<td>55%</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>Downtown</td>
<td>Pan Am Ceremonies Venue</td>
<td>36,000</td>
<td>32% (footnote 2)</td>
<td>55%</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>Downtown</td>
<td>Pan Am/Parapan Am Fields &amp; Varsity Stadium</td>
<td>3,200</td>
<td>45% (footnote 3)</td>
<td>55%</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>Downtown</td>
<td>Royal Canadian Yacht Club</td>
<td>TBD</td>
<td>16%</td>
<td>55%</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>Downtown</td>
<td>Ryerson Athletic Centre</td>
<td>2,400</td>
<td>44% (footnote 3)</td>
<td>55%</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>West</td>
<td>Centennial Park Pan Am BMX Centre</td>
<td>1,600</td>
<td>7%</td>
<td>20%</td>
<td>70%</td>
<td>10%</td>
</tr>
<tr>
<td>West</td>
<td>CIBC Hamilton Pan Am Soccer Stadium</td>
<td>18,000</td>
<td>10% (footnote 2)</td>
<td>30%</td>
<td>55%</td>
<td>15%</td>
</tr>
<tr>
<td>West</td>
<td>Royal Canadian Henley Rowing Centre</td>
<td>1,800</td>
<td>1%</td>
<td>10%</td>
<td>85%</td>
<td>5%</td>
</tr>
<tr>
<td>West</td>
<td>Mississauga Sports Centre</td>
<td>3,320</td>
<td>5%</td>
<td>25%</td>
<td>70%</td>
<td>5%</td>
</tr>
<tr>
<td>West</td>
<td>Cisco Milton Pan Am/Parapan Am Velodrome</td>
<td>1,600</td>
<td>-</td>
<td>10%</td>
<td>85%</td>
<td>5%</td>
</tr>
<tr>
<td>West</td>
<td>Pan Am Bowling Centre</td>
<td>120</td>
<td>7%</td>
<td>20%</td>
<td>70%</td>
<td>10%</td>
</tr>
<tr>
<td>West</td>
<td>Welland Pan Am Flatwater Centre</td>
<td>880</td>
<td>2%</td>
<td>5%</td>
<td>90%</td>
<td>5%</td>
</tr>
<tr>
<td>North</td>
<td>Pan Am Cross-Country Centre</td>
<td>8,000</td>
<td>-</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>North</td>
<td>Caledon Pan Am Equestrian Park</td>
<td>3,200</td>
<td>1%</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Zone</td>
<td>Venue/Cluster</td>
<td>Net Venue Capacity</td>
<td>Existing Transit Mode Share (footnote 1)</td>
<td>Transit Mode Share Target</td>
<td>Auto Mode Share Target</td>
<td>Walk/Cycle Mode Share Target</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------</td>
<td>--------------------</td>
<td>----------------------------------------</td>
<td>---------------------------</td>
<td>------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>North</td>
<td>Hardwood Mountain Bike Park</td>
<td>4,200</td>
<td>-</td>
<td>0%</td>
<td>95%</td>
<td>5%</td>
</tr>
<tr>
<td>North</td>
<td>Minden Wild Water Preserve</td>
<td>400</td>
<td>-</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>North</td>
<td>Pan Am Shooting Centre</td>
<td>280</td>
<td>-</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>North</td>
<td>York University Pan Am/Parapan Am Complex</td>
<td>10,000</td>
<td>18% (footnote 3)</td>
<td>45%</td>
<td>45%</td>
<td>10%</td>
</tr>
<tr>
<td>East</td>
<td>Abilities Centre</td>
<td>600</td>
<td>1%</td>
<td>20%</td>
<td>80%</td>
<td>0%</td>
</tr>
<tr>
<td>East</td>
<td>President’s Choice Ajax Pan Am Ball Park</td>
<td>6,400</td>
<td>7%</td>
<td>15%</td>
<td>80%</td>
<td>5%</td>
</tr>
<tr>
<td>East</td>
<td>Angus Glen Golf Club</td>
<td>1,600</td>
<td>-</td>
<td>5%</td>
<td>95%</td>
<td>0%</td>
</tr>
<tr>
<td>East</td>
<td>Markham Pan Am/Parapan Am Centre</td>
<td>3,200</td>
<td>2%</td>
<td>35%</td>
<td>60%</td>
<td>5%</td>
</tr>
<tr>
<td>East</td>
<td>Oshawa Sports Centre</td>
<td>2,400</td>
<td>8%</td>
<td>25%</td>
<td>65%</td>
<td>10%</td>
</tr>
<tr>
<td>East</td>
<td>Scarborough Pan Am/Parapan Am Complex</td>
<td>6,000</td>
<td>12%</td>
<td>45%</td>
<td>45%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Overall Weighted Average – Pan American Games</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>40%</strong></td>
<td><strong>45%</strong></td>
<td><strong>15%</strong></td>
</tr>
<tr>
<td><strong>Overall Weighted Average – Parapan American Games</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>50%</strong></td>
<td><strong>35%</strong></td>
<td><strong>15%</strong></td>
</tr>
</tbody>
</table>

Exhibit 22 Footnotes:
1. Unless noted, existing mode shares are based on 2006 Transportation Tomorrow Survey (TTS)
2. Pan Am/Parapan Am Special Events Travel Survey, Forum Research 2012
3. 2006 TTS excluding school trips
2.2. **Client Groups**

During the Games, travellers in the Greater Golden Horseshoe can be categorized into four client groups:

- Games Family;
- Spectators;
- Workforce; and
- Residents and businesses.

Exhibit 23 describes each client group, its size, its travel needs, and the lead and partner organizations involved in meeting those needs. The work to understand and meet the needs of each client group will be led by a single organization and coordinated with partners:

- TO2015 will be generally responsible for planning and delivering safe, secure and reliable transportation services for Games Family members – typically in official vehicles using the Games Route Network (GRN, as detailed in Section 2.4).

- PATT is responsible for designating and coordinating the GRN. The operation of each GRN road will be the responsibility of the road’s owner, either MTO or a municipality. The ISU will plan for and stage resources to help ensure the safe travel of the Games Family on the GRN.

- MTO will lead and coordinate spectator travel. In addition, it will work with municipalities through PATT to ensure that the travel needs of residents and businesses are accommodated.

- TO2015 will be responsible for defining Games workforce travel needs and working with local transit agencies and other transportation providers to address them. However, Games workforce travel will be largely accommodated through provisions made for spectators.
### Exhibit 23: Pan Am/Parapan Am Games Transportation Client Groups and Responsibilities

<table>
<thead>
<tr>
<th>Client Group</th>
<th>Description</th>
<th>Approximate Number</th>
<th>Travel Needs</th>
<th>Organizations with responsibilities related to client groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Games Family</td>
<td>Pan Am/Parapan Am athletes and team officials; international federations and dignitaries; technical officials; accredited media, including press &amp; broadcast; Games partners who provide sponsorship and marketing</td>
<td>23,000 plus</td>
<td>Reliable, timely, safe, secure, and accessible travel to/from venues, from arrival at port of entry (e.g. airport), during stay in the GGH region (e.g. Athletes' Village) and departure from port of entry.</td>
<td>Lead</td>
</tr>
<tr>
<td>Spectators</td>
<td>People that attend a Pan Am/Parapan Am hosted event, including ticketed and nonticketed competition and ceremony events</td>
<td>Ticketed Spectators: 1.2 million (Pan Am) 200,000 (Parapan Am) Un_ticketed Spectators: Number Unknown</td>
<td>Get to their event on-time; be informed of the transportation choices and accessibility requirements; be provided with transportation information tools to help them plan their travel, both pre-trip and en-route.</td>
<td>Yes</td>
</tr>
<tr>
<td>Client Group</td>
<td>Description</td>
<td>Approximate Number</td>
<td>Travel Needs</td>
<td>TO 2015</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Games Workforce</td>
<td>TO2015 staff, contractors and volunteers that support the operation of the Games</td>
<td>Approximately 550 staff 17,500 Pan Am volunteers 13,000 Parapan Am volunteers</td>
<td>Travel to various venue locations within the GGH; understand what transportation options are available to them.</td>
<td>Lead</td>
</tr>
<tr>
<td>Residents</td>
<td>People that live, work and play in the GGH and who continue to go about their daily lives during the Games</td>
<td>8.8 million</td>
<td>Continue to carry out daily activities; understand if their travel will be affected by the Games and know what they need to do to get around the problem; understand what transportation options are available to them. No degradation to existing accessible services</td>
<td>No</td>
</tr>
<tr>
<td>Client Group</td>
<td>Description</td>
<td>Approximate Number</td>
<td>Travel Needs</td>
<td>TO 2015</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
<td>-------------------</td>
<td>--------------</td>
<td>---------</td>
</tr>
<tr>
<td>Businesses</td>
<td>Large and small organizations; includes the freight industry</td>
<td>4.8 million workers</td>
<td>Continue to carry out daily activities; understand if they will be affected by the Games and know what they need to do to get around the problem; understand what transportation options are available to their employees &amp; customers; understand how their business may be affected (e.g. road closures).</td>
<td>No</td>
</tr>
</tbody>
</table>
2.2.1 **Games Family**

The Pan Am/Parapan Am Games will bring to the region over 23,000 Games Family members including athletes, their support teams and technical officials. It is essential that they can travel to and from competitions, reliably and on time.

Members of the Games Family include:

- **Athletes and Team Officials**, who are right at the heart of the Games, and for whom every minute counts when training and competing;

- **International Federations (IFs) and dignitaries** from 41 competing nations and across the world, including National Olympic Committees (NOCs), International Paralympic Committee (IPC), National Paralympic Committees (NPCs), Pan American Sports Organization (PASO) Family;

- **Technical officials**, who are vital for setting up and running competitions;

- **Pan and Parapan American organizing committees**, who include the World Anti-Doping Agency, Medical Commission, medal ceremonies officials at multiple venues, and Sports Federations;

- **Media, Press and Broadcasters** and their equipment, not just journalists but the technical staff needed for live broadcasts and reporting at multiple venues, to ensure the rest of the world can follow the action; and

- **Games partners** who provide sponsorship and services.

Games Family travel includes arrivals and departures, daily transportation to and from competition and practice venues, and travel for other Games and non-Games related purposes. Different groups within the Games Family will travel in different ways, but most will travel in buses, coaches and cars. Some Games Family will also have accessible transportation requirements.

Games Family may also use public transit to travel during the Games. TO2015 will be responsible for identifying these needs with local transit agencies.

Different groups will have distinct needs. Athletes may be travelling alone or with team members, and they also need their equipment to arrive at the proper venue on time. International Federations will have requirements that depend on the number of delegates with them.

The challenge for Games Family transportation is to provide reliable mobility on a busy and often congested network. Adding to the challenge is the vast geography of the Games, which creates long distances between some venues and central Toronto, where the Athletes' Village and Games Family accommodations will be located. Distance poses a risk to travel reliability, and satellite athlete accommodations closer to some outlying venues are being proposed to mitigate this risk.
The Games Route Network (GRN) defined in the Strategic Framework will help meet these diverse needs and minimize risk. The GRN includes routes connecting Games venues, the Athletes' Village, Games Family hotels, the media centre, and the airport. In order to maximize reliability, the GRN will include Priority Lanes when and where they are needed; these will be coordinated with other road operation strategies to optimize the overall flow of traffic during the Games.

Objectives

- Ensure that Games Family journeys are reliable, timely and safe, reducing delays through congested locations and at venue security checkpoints.
- Minimize travel reliability risks for lengthy same-day trips between competition venues and the Athletes' Village.
- Coordinate the multiple routes required to serve Games venues resulting from the geographic spread of venues.
- Maintain efficient transportation for Games Family during road race disruptions, as well as quick incident management assistance.
- Build public, business, and political understanding and support for Games Family transportation requirements, and implement actions on the transportation system required to achieve commitments.
- Develop a flexible strategy based on available information about Games-time travel that will change as planning continues.

Strategies

- Creation of a Games Route Network (GRN) for Games Family with measures to improve travel time reliability.
- An operational plan for the GRN with clear and achievable Games-time performance targets, clarifying responsibilities of various road jurisdictions.
- Identify alternate routes and develop contingency plans to address potential GRN blockages.
- Clear communication to all road users and agencies of the need for and operation of the GRN.
- Monitoring of key sections of the GRN and the movement of Games Family vehicles.
- Priority Lanes for Games Family vehicles, only where absolutely necessary.
• Use of satellite accommodations to reduce long commutes by athletes to outlying venues.

• Coordination of transportation demand management strategies with the GRN to reduce background demand.

2.2.2 Spectators

Providing a safe, reliable and efficient multimodal travel experience for spectators will ensure they arrive ready to cheer on the athletes.

Over the course of the Pan Am/Parapan Am Games, over 1.4 million ticketed spectators are expected at over 500 sessions. In addition, 15 road race events will have largely unticketed spectators lining the routes. There will be significant added demand on transportation facilities serving all modes.

A major challenge for spectator transportation is the fact that venues are geographically dispersed, face widely varying transportation opportunities and constraints, and may operate differently than usual. Outside downtown Toronto, many venues have limited transit service and are in areas where travel is predominantly by car.

However, the Games provide an opportunity to demonstrate the potential for transit and sustainable travel choices in the Greater Golden Horseshoe. Adequate planning and coordination among transit providers can give many spectators attractive options for reaching events without a car. This will require supporting strategies to manage auto access and venue parking as well as travel planning and traveller information.

Objectives

A key goal for spectator travel is the achievement of the mode share targets presented in Section 2.1.3 which describes the proportion of spectator travel to be served by auto, transit and active transportation at each venue. Other objectives include:

1. Create a positive travel experience.

The Games-time experience goes beyond the venue, extending to the way spectators travel to and from events. Strategies will create an outstanding travel experience by making it easy to plan trips, to identify and follow the best route, and to arrive on time. Coordinated planning and operation is essential across a diverse region with multiple transit service providers and jurisdictions.

2. Provide a “transit-first” spectator transportation strategy.

Constraints on the roadway network and at venues mean that the Games must substantially rely on public transit to accommodate spectator travel demands.
3. Encourage sustainable travel choices.

How spectators choose to travel to the Games will be influenced by the availability and quality of multimodal options. Providing practical and convenient transit, walking and cycling options will encourage spectators to leave their cars at home.

4. Provide reliable travel times to help spectators plan their trips.

Spectators will rely on estimated travel times to help them plan to arrive at venues on time. They can be assisted by clearly identified travel expectations and trip planning tools.

5. Provide accessible transportation options.

Games travel must be made accessible through a combination of accessible conventional transit services, contracted services, accessible drop-off zones, and accessible parking. Travel planning tools will integrate accessibility needs and barrier-free paths to and from Games venues.


Spectator travel strategies will maximize use of existing services and infrastructure. Where there is a demonstrated need, additional services will balance the desire for a high-quality experience with the need for fiscal responsibility.

Strategies

- A Games Transit Network providing clear and efficient spectator public transit to and from venues.
- Identify alternate routes and develop contingency plans to address potential blockages on the Games Transit Network.
- Walking and cycling strategies for spectator travel that complement the Games Transit Network.
- A single online portal for spectators to plan their travel to and from events across the region.
- Management of auto access, local traffic impacts, and venue parking.
- Transit ticket integration, so that event tickets provide same-day transit network access.
- Road race strategies that mitigate the impacts on spectator travel of road closures and other access restrictions.
2.2.3 Workforce

The travel needs of Games staff, contractors and volunteers across the region will differ from those of the Games Family and spectators. The workforce will travel at different times, and limited transportation options may require them to change how they usually get around.

The Games will have a workforce of over 550 staff, 17,500 Pan Am volunteers, 13,000 Parapan Am volunteers, and other contractors (collectively known as the "Games workforce") across the region at Games venues, transportation hubs, celebration sites, and road race courses. In view of the transportation network challenges and constraints, meeting the travel needs of the Games workforce will require an approach similar to that for spectators; this includes the provision of accessible travel options for people with disabilities.

TO2015 will be responsible for the Games workforce client group and will identify travel needs and the transportation strategies and services to meet these needs. Coordination with PATT will be needed where there are impacts on spectator and background transportation.

Because limited parking will be available for the workforce at Games venues, most travel will be by transit and other modes. While few challenges may exist at venues with good transit service, encouraging the Games workforce to take transit will be challenging at times and locations where adequate service is not available. The issue of transit access by the Games workforce, including accredited access and fare strategy, must be addressed because it will have an impact on the planning of transit services to Games venues. These service needs will be determined by TO2015.

Objectives

- Confirm Games workforce travel needs and services with TO2015 and coordinate with strategies for other client groups where needed and advantageous.
- Encourage travel by Games workforce on public transit and maximize use of existing services.

Strategies

- Many strategies for spectator travel will be applicable for Games workforce.
- Transit service adjustments for extended workforce travel hours as applicable.
- Transit fare strategy and accredited access for workforce members.
2.2.4 Residents and Businesses

A successful Games will be judged, in part, by how well the region continues to function while hosting the Games. Residents and businesses must be able to meet their daily needs.

Games-related travel will add demand to the region’s transportation network. Minimizing impacts on the regular functioning of the region is an important part of the Games transportation strategy.

While residents and businesses are generally accustomed to peak period congestion on roadways and crowding on transit, they may not be aware that congestion and crowding during the Games could happen at unusual times and locations, both near Games venues and road race courses and on routes leading to them. Residents and businesses may be unaware that these impacts will occur in the summer of 2015, and that they will need to think about travelling differently – both for their own sake and the sake of the Games. The challenge will be to build public awareness of the possible transportation impacts and conditions, and an understanding of appropriate responses and their benefits.

Transportation demand management strategies will encourage travel choices that bring mutual benefits to individuals and the overall network. These strategies will deal not only with passenger travel, but also with the timing and routing of goods movement and deliveries across the region.

Evidence from recent Olympic Games in Vancouver and London has highlighted the important role of resident and business travel in successful Games. Where residents and businesses modify their travel behaviours (i.e. by avoiding trips altogether, or by shifting their modes, routes or times), congestion can be reduced, hotspots avoided, and impacts managed. Spectators can get to events on time, and business can continue to operate. These Games must have a similar goal.

Objectives

- Maintain the ability of residents and business to live and operate during the Games.

- Elevate the level of engagement and awareness of Games-time transportation challenges and strategies.

- Encourage travel behaviour change, such as the use of alternative modes (transit, active travel) during the Games to maximize efficiency of the transportation network.

- Create opportunities for lasting behaviour change and an operational legacy.
Strategies

- Public engagement, awareness, and communications campaigns to raise profile of Games-time transportation challenges.
- Engaging businesses and freight stakeholders to ensure day-to-day operations continue as normally as possible.
- Localized campaigns for residents and businesses near Games venues who will be impacted on a day-to-day basis during the Games.
- Mitigation of local traffic and parking impacts through local street access restrictions and residential parking programs on event days.
- Tools, information, and data to help residents and businesses understand Games impacts and plan around disruptions.
- Additional traffic operations analysis to determine impacts and inform mitigation strategies.
- Encourage regional Smart Commute Workplaces to adopt and showcase transportation behaviour change measures.
- Work with stakeholders and partners (e.g. Business Improvement Areas) to communicate transportation challenges and options to the public.

2.3. Arrivals and Departures

The Pan Am/Parapan Am Games will attract thousands of visitors, athletes, officials, dignitaries, and media. Their arrivals and departures experience will provide their first and last impressions of our region. There is only one chance to get it right.

2.3.1 Objectives

All Games visitors should have a welcoming first impression. Their arrival at Toronto Pearson International Airport, Billy Bishop Toronto City Airport or other port of entry should be smooth and timely, and their connection to local accommodations should be convenient and efficient. When they leave the region, their departure should leave an equally positive and lasting impression.

2.3.2 Planning Parameters

Most Games visitors will arrive and depart through Toronto Pearson International Airport (YYZ), the Official Welcome Partner and Official Supplier of Airport Services for the Games, about 30 kilometres from downtown Toronto. The airport handles about 34...
million passengers annually and provides full customs and immigration facilities including United States pre-clearance for departures. It is also equipped with dedicated customs facilities for special events.

Games client groups will travel to and from the airport in different ways. For most spectator visitors, the Union Pearson Express (a new rail link between Toronto Pearson International Airport and downtown Toronto) will be a convenient and accessible way to reach central Toronto. They may also use taxis or local transit services, or rely on local friends and family members.

Billy Bishop Toronto City Airport (YTZ) is located near downtown Toronto and provides regional flight connections throughout eastern Canada and United States. The airport handles approximately 2 million passengers annually. It is connected to Union Station by TTC streetcar, taxi, and a shuttle bus service. Walking and cycling connections, including bike share, are also available.

Toronto Union Station is the busiest transportation hub in the country and is a major destination for intercity VIA Rail and Amtrak trains. No customs facilities are available at the station as passengers on the Maple Leaf train between New York and Toronto are processed at the border in Niagara Falls.

Other ports of entry to the region include John C. Munro Hamilton International Airport (YHM), Region of Waterloo International Airport (YKF), and land-based border crossings to the United States.

Exhibit 24: Pan Am/Parapan Am Games Transportation Client Groups and Responsibilities

2.3.3 Needs and Issues

Visiting spectators will arrive and depart throughout the Games period; more are likely in the days before the Opening Ceremony and after the Closing Ceremony. Exhibit 24 provides an overview of the arrival and departure of Games Family members based on experience from previous large sporting events. The peak arrivals days are expected to be the two days prior to the start of both the Pan Am and Parapan Am Games while the peak departures are expected the day after the Closing Ceremony.
The transportation of Games Family groups to and from Toronto Pearson International Airport will be the responsibility of TO2015, and will require coordination with the Greater Toronto Airports Authority (GTAA) to ensure security and efficiency. However, MTO will be responsible for the designation and operation of the Games Route Network (GRN) between Toronto Pearson International Airport, Athletes' Village and Games Family hotels.

TO2015 will arrange transportation for athletes, team officials and Games dignitaries between the airport and Athletes' Village and Games Family hotels. Some Games Family groups including technical officials and media will use the Union Pearson Express to travel to Union Station.

2.3.4 Strategies

- Provide volunteers and greeters at major ports of entry – Toronto Pearson International Airport, Billy Bishop Airport, and Union Station – to welcome visitors and provide travel information.

- Ensure availability of travel information at major ports of entry, including route and schedule information for regional public transit providers. Explore the ability to sell fares, tickets, and passes at airports.

- Connect Toronto Pearson International Airport to the Games Route Network to ensure reliable transportation for Games Family.

- Promote the Union Pearson Express as the preferred mode of travel between Toronto Pearson International Airport and downtown Toronto for spectators, visitors, and for some Games Family.

2.4. Games Route Network

The Games Route Network (GRN) is a system of roads connecting the Pan Am/Parapan Am competition venues to the Athletes' Village and other main venues. The Games Family will rely on the GRN for reliable, timely and safe travel.

The GRN will generally be open to all traffic, and there will be measures to smooth traffic flow, respond to incidents in a timely and coordinated manner, and manage background traffic demand. Where required to ensure the reliability of Games Family travel, Priority Lanes in the form of an expanded high-occupancy vehicle (HOV) lane network will operate during the Games; Games vehicles will mix with other HOVs and transit vehicles in the Priority Lanes, and with general traffic in other locations on the GRN.

The GRN will allow agencies to focus their attention and management efforts on key routes during the Games, so that they can provide safety and security with confidence, enable athletes to arrive on time, and allow the region to operate as usual.
2.4.1 Objectives

The key objective of the GRN is to enable reliable, timely and safe transportation of the Games Family between venues and their accommodation. It is absolutely vital that athletes and their support teams have certainty of travel times, so they can properly prepare and perform. Some delays are likely inevitable, but steps to keep them within acceptable limits are critical to avoid interfering with athletes’ preparation for their events.

The Games Transportation Story

Miguel: Competing for Team Argentina

Miguel is an athlete from Argentina competing in badminton and travelling to Toronto for his first major competition, hoping to qualify for the 2016 Olympics in Rio de Janeiro. He had visited Toronto when he was much younger and is amazed to see, as his plane is landing, how much the city had changed. Upon arrival, Miguel and his teammates are directed to a welcome centre at the airport where priority customs clearing and immigration services are provided. A busy day for arrivals, Miguel has a short wait, but is quickly provided entry and boards one of the buses clearly marked to the CIBC Pan Am/Parapan Am Athletes’ Village.

Arriving at the peak of morning rush hour, Miguel notices increasing congestion but then sees that his bus is moving into a dedicated HOV lane along the Gardiner Expressway. He is whisked along the highway into downtown Toronto and the CIBC Pan Am/Parapan Am Athletes’ Village – in time to get settled before the Opening Ceremony later in the day.

Miguel’s first match is on the first full weekday of competition during the Games on July 13th. He hops aboard the athletes’ bus from the CIBC Pan Am/Parapan Am Athletes’ Village to the Markham Pan Am/Parapan Am Centre at 7:30 a.m. As the bus heads north on the Don Valley Parkway, he notices that the bus is moving much faster than the other vehicles on the road. He notices signs on the side of the road with a picture of a car and the number ‘3’ inside of it. As the bus passes Eglinton, he notices that a vehicle collision is being cleared with police at the scene, which explains the congestion in the other lanes. He reaches the venue by 8:00 a.m. and is impressed that he has not been delayed. Miguel wins his match and stays at the venue after his match to take photos with the Argentinean fans. When Miguel is ready to return to the CIBC Pan Am/Parapan Am Athletes’ Village, he easily finds his bus and makes it back in less than half an hour. This time, he notices that there are generally less vehicles on the road in both directions and at the same time, hears a radio advertisement, warning commuters to re-time their trips during the Games to help keep the city moving.
2.4.2 Planning Parameters

GRN route selection was an iterative process involving the relevant road authorities. Candidate routes linking the venues were identified and then assessed using quantitative and qualitative analysis by key stakeholders using established traffic data sources. The goal was to strike an appropriate balance between travel time, reliability, cost, disruption and public acceptability. The preferred routes were ranked and selected based on their:

- reliability;
- travel time;
- safety;
- ability to serve multiple venues; and
- ease of offering priority to Games vehicles (e.g. through a Priority Lane or regulating demand).

In case the preferred GRN routes cannot be used, alternative nearby routes will be established through the same process. Initial routes have been identified and will be further refined during the Transportation Delivery Plan phase and as venue planning advances. On some days, road races may lead to a temporary rerouting of the GRN.

Games Family traffic volumes on the GRN will vary significantly by hour and by day according to the competition schedule, and on different roads as a function of the venue capacity. Some of the more distant venues will be in operation for only a few days, and have lower competitor numbers than venues in downtown Toronto.

The GRN includes four categories of roads:

1. **Core Games Route Network** – Main roads between the airport, the CIBC Pan Am/Parapan Am Athletes’ Village, and the larger, most frequently used competition venues. This includes all parts of GRN within downtown Toronto. This section of the GRN will be heavily used by Games traffic throughout the Games. Much of it may also be required for the arrival and training periods prior to the Games, and for departure to the airport after the Games. The Core GRN will remain in place during the Parapan Am Games, with some reductions to reflect the smaller number of venues.

2. **Venue Games Route Network** – Routes to more distant venues such as Welland Pan Am Flatwater Centre and Pan Am Cross-Country Centre. This will include routes from satellite accommodation to venues. These GRN routes will only operate while the relevant venues are in use.
3. **Training Games Route Network** – Extension of GRN routes to training venues. Besides security and traffic monitoring measures, no additional traffic management measures are planned for these road sections, as, compared to competition venues, it is not as time-critical to get to these venues.

4. **Alternative Routes** – Short-term contingency routes that will maintain reliable journeys if a primary GRN route is disrupted. These will only be used as needed, depending on the circumstance of the disruption. Some Alternative Routes will be used on road race event days.

In addition to connecting competition and training venues, the GRN will also be in operation during the Opening and Closing Ceremonies of both the Pan Am and Parapan Am Games. It will serve Pan Am Ceremonies Venue (Pan American Games Opening Ceremony and Closing Ceremony), CIBC Pan Am/Parapan Am Athletics Stadium (Parapan American Games Opening Ceremony) and Nathan Phillips Square (Parapan American Games Closing Ceremony).

### 2.4.3 Needs and Issues

Previous events have demonstrated that early definition and design of the GRN has two key advantages:

- it gives transportation agencies and stakeholders time to anticipate and respond to any impacts. MTO and area municipalities can use the lead time to engage with residents, businesses and utilities and explain what is proposed. Roadworks or other projects that could interfere with the GRN can be rescheduled; and,

- it allows Games organizers to plan their event and transportation logistics.

### 2.4.4 Strategies

The GRN for the Pan Am Games and Parapan Am Games is shown in Exhibit 25 and Exhibit 26, respectively. The following sections discuss key aspects of GRN implementation.

**Approximate length of the Games Route Network (in each direction)**

- 770 km Total Games Route Network
- 250 km Core Network
- 150 km Priority Lanes
GRN Principles

GRN operation will follow these basic principles:

- GRN roads are open to all traffic, and are not closed roads for Games vehicles; exceptions may occur near competition venues or security cordons.

- Some temporary measures will be used to improve traffic flow on the GRN.

- The GRN will operate only when absolutely necessary. Specific dates will be set for its operation, based on the competition schedule and Games Family arrivals and departures.

- The segments identified as part of the Core GRN will operate whenever the GRN is operational.

- Segments of the Venue GRN will operate only when the venue they serve is in operation.

The Alternative GRN will operate only if required.

- A Unified Transportation Coordination Centre (UTCC) will be in place to coordinate transportation partners and help manage the GRN in real time, in conjunction with the relevant road authority’s control centre.

- Motorists will be encouraged, via transportation demand management messaging, not to use the GRN on certain days and at certain times.

- Rapid response teams will deal quickly with any incidents.

The traffic management measures for the Core, Venue and Alternative GRN will be supported by the Transportation Demand Management strategy (see Section 2.11) and the real-time operational plan (see Section 3.2). Exhibit 27 conceptually illustrates the function of these supportive strategies in maintaining predictable travel times.
Exhibit 25: Games Route Network - Pan American Games
Exhibit 26: Games Route Network - Parapan American Games
Exhibit 27: Games Route Network Performance Strategies

DEMAND MANAGEMENT
- Public Communication and Consultation
- Travel Information and Advice
- Higher Vehicle Occupancy
- Mode Switch, Real-time, Re-route, Reduce

TRAFFIC MANAGEMENT
- GRN Priority over other Roads
- Priority Lanes
- Manage Road/Lane Closures
- Parking Restrictions
- Loading Restrictions
- Pedestrian Road Restrictions
- Traffic Regulation
- Traffic Signal Control

TRAVEL TIMES

REAL-TIME OPERATIONS
- UTCC Coordination
- Enhanced Control Room Capability
- Law Enforcement
- Tow Away
- Incident Response Teams
Priority Lanes

Priority Lanes will be a vital traffic management tool for these Games, and involve temporary designation of one existing lane in each direction on some sections of multi-lane roads and highways on the GRN as a Priority Lane for Games Family vehicles, single-occupant vehicles with permits, and high-occupancy vehicles (HOVs), including transit. They would be similar to HOV lanes that already exist in the GTHA.

The availability of Priority Lanes will be critical to provide reliable travel for the Games Family on the most congested parts of the GRN, from early morning to late evening. However, the volume of Games Family vehicles would be too low to justify dedicating an existing lane solely for their use; such a measure could generate negative public and media attention. Opening Priority Lanes to non-Games HOVs and transit could make best use of their capacity while also preserving service for Games Family members. This would extend the benefits of improved travel time to more travellers and encourage HOV and transit travel during the Games.

High-Occupancy Vehicle (HOV) lanes on the 400-series Highway Network are an example of priority lanes in the existing transportation network.

Priority Lanes will be a key traffic management tool during the Games and will be implemented strategically when and where they are most needed on the road network.

Wherever possible, and subject to further study, the lanes will be opened to select non-Games Family traffic including high occupancy vehicles and transit - demonstrating and extending the benefits of Priority Lanes to more travellers during the Games.

The proposed Priority Lanes, which align with most of the Core GRN, are shown in Exhibit 28 and Exhibit 29. They were identified using:

- a strategic approach, aiming for a cohesive system connected to existing HOV lanes;
- supporting established policy objectives, including cost-effectiveness; and,
- a more tactical, bottom-up approach that identified hot spots in view of likely travel demand.
Exhibit 28: Priority Lanes - Pan American Games
Exhibit 29: Priority Lanes - Parapan American Games
More detailed analysis will be conducted in the Delivery Planning phase to decide what level of HOV occupancy is appropriate for eligibility to use the Priority Lanes. If the results of detailed traffic modelling and analysis confirm that 2+ occupancy lanes will attract too much traffic over large parts of the day, and would negate any benefits for either Games Family users or HOV occupants, 3+ occupancy (i.e. at least three occupants) will be considered for HOVs using the Priority Lanes, even on existing 2+ HOV lanes. Other parameters including time of day will also be investigated. Detailed traffic analysis conducted in the next phase will also identify pinch points in the Priority Lane network and any required mitigating measures.

Legislative and/or regulatory amendments may be required depending on final decisions regarding HOV occupancy requirements.

The timing for introduction of the Priority Lanes will be decided in the Delivery Planning phase, and may include opening in advance of the Games to provide an opportunity for road users to adjust their travel patterns and for transportation agencies to monitor impacts.

Traffic Management
Traffic management measures optimize the use of limited roadspace, and provide a balance between the needs of the Games, and the needs of the region. Games-related traffic management measures will be temporary, and they may last the entire period of the Games, or only for the few days a particular venue is in operation.

A critical-segment analysis of each GRN corridor has identified the need for, and nature of, effective measures that will provide reliable performance on roads and at intersections. Some traffic management measures, such as managing third-party projects and roadworks affecting the GRN during its operation to free up roadway capacity and benefit all users, will be applied across the GRN (and on adjacent roads, where critical).

Some measures, such as the use of Priority Lanes for Games Family vehicles and high-occupancy vehicles (HOVs) on the Core network, will be limited to certain GRN sections where there is specific need. Other measures may be used only when competition demands warrant.

Legislative and/or regulatory amendments may be necessary depending on the chosen option and design details.

The "toolkit" of traffic management measures is summarized in Exhibit 30 and includes:

1. **Parking and loading restrictions** – This will improve general traffic flow near venues by restricting vehicles from stopping or parking in strategic locations.

2. **Management of road/lane closures** – Restricting daytime lane closures for construction and maintenance activities on or near the GRN is proposed for a few days before the Opening Ceremony, throughout the Games period until the day after
the Closing Ceremony. These restrictions will be adjusted to reflect actual Games activities along the GRN. For example, the City of Toronto is managing its Gardiner Expressway Rehabilitation Project to avoid lane closures from June to September 2015. This will allow all lanes to remain open during the Games.

3. **Priority Lanes on Core GRN** – These will be introduced ahead of the Games and give priority to Games Family and multi-occupant vehicles, including public transit.

4. **Traffic signal control** – Traffic signals along, and adjacent to, the GRN will be regulated to improve Games Family traffic flow.

5. **Traffic regulation** – Turn restrictions will be implemented at key points along the GRN to improve traffic flow.

6. **Incident Response Teams** – These teams will provide removal of road blockages due to collisions and breakdowns.

**Exhibit 30: Toolkit of Games Route Network Management Measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Purpose</th>
<th>Who benefits</th>
<th>Who does not benefit</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking and Loading Restrictions</td>
<td>Improve capacity</td>
<td>Through traffic</td>
<td>Some local residents</td>
<td>Detail will be consulted upon locally</td>
</tr>
<tr>
<td>Management of Road/Lane Closures</td>
<td>Improve capacity</td>
<td>All</td>
<td>n/a</td>
<td>Emergency roadworks will still occur</td>
</tr>
<tr>
<td>Priority Lanes</td>
<td>Priority for multi-occupant vehicles and transit</td>
<td>Multi-occupant vehicles and transit, Games Family</td>
<td>Vehicles with less than the required number of occupants</td>
<td>Potential legacy benefits</td>
</tr>
<tr>
<td>Traffic Signal Control</td>
<td>Priority for GRN traffic</td>
<td>Through traffic on GRN</td>
<td>Traffic crossing or joining GRN</td>
<td>Possibly some legacy benefits</td>
</tr>
<tr>
<td>Traffic Regulation</td>
<td>Priority for GRN traffic, improve capacity</td>
<td>Through traffic on GRN</td>
<td>Some local traffic</td>
<td>Detail will be consulted on locally</td>
</tr>
<tr>
<td>Incident Response Teams</td>
<td>Limit roadway disruptions</td>
<td>All</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>
Exhibit 31 demonstrates how different elements of the traffic management measures "toolkit" (presented in Exhibit 30) can be implemented on various sections of the Games Route Network and at various times before, during, and after the Games. The "full toolkit" can be either partially or fully implemented at various times during the Games, depending on volume of travel and other travel needs that will vary by hour and day. Before, after, and between the Games, not all measures identified in Exhibit 30 will be needed, such as Priority Lanes. During these periods, a "partial toolkit" of traffic management measures may be implemented based on day-to-day needs.

**Exhibit 31: Utilization of Games Route Network Operational Measures - Pan Am and Parapan Am Games**

Exhibit 32 shows average and 95th percentile travel times between the Athletes' Village and venues in the afternoon peak period with and without GRN traffic management measures. These travel times do not include the impacts of TDM measures to reduce travel demand.

Exhibit 33 shows the average and 95th percentile travel times between satellite accommodations and the venues they serve.
### Exhibit 32: PM Peak Period Games Family Travel Times

<table>
<thead>
<tr>
<th>Zone</th>
<th>Venue/Cluster</th>
<th>Distance from Athletes’ Village (km)</th>
<th>Average PM Peak Period Travel Time from Athletes’ Village – Without GRN Traffic Mgmt Measures</th>
<th>Average PM Peak Period Travel Time from Athletes’ Village – With GRN Traffic Mgmt Measures</th>
<th>95th Percentile PM Peak Period Travel Time from Athletes’ Village – Without GRN Traffic Mgmt Measures</th>
<th>95th Percentile PM Peak Period Travel Time from Athletes’ Village – With GRN Traffic Mgmt Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown</td>
<td>CIBC Toronto Pan Am Park</td>
<td>5</td>
<td>0:15</td>
<td>0:13</td>
<td>0:19</td>
<td>0:15</td>
</tr>
<tr>
<td>Downtown</td>
<td>Nathan Phillips Square</td>
<td>3</td>
<td>0:12</td>
<td>0:09</td>
<td>0:16</td>
<td>0:11</td>
</tr>
<tr>
<td>Downtown</td>
<td>Pan Am Ceremonies Venue</td>
<td>3</td>
<td>0:12</td>
<td>0:10</td>
<td>0:16</td>
<td>0:11</td>
</tr>
<tr>
<td>Downtown</td>
<td>Pan Am/Parapan Am Fields</td>
<td>6</td>
<td>0:24</td>
<td>0:20</td>
<td>0:35</td>
<td>0:26</td>
</tr>
<tr>
<td>Downtown</td>
<td>Royal Canadian Yacht Club</td>
<td>2</td>
<td>0:05</td>
<td>0:05</td>
<td>0:06</td>
<td>0:05</td>
</tr>
<tr>
<td>Downtown</td>
<td>Ryerson Athletic Centre</td>
<td>4</td>
<td>0:15</td>
<td>0:12</td>
<td>0:21</td>
<td>0:15</td>
</tr>
<tr>
<td>Downtown</td>
<td>Varsity Stadium</td>
<td>6</td>
<td>0:24</td>
<td>0:20</td>
<td>0:35</td>
<td>0:26</td>
</tr>
<tr>
<td>West</td>
<td>Centennial Park Pan Am BMX Centre</td>
<td>26</td>
<td>0:38</td>
<td>0:30</td>
<td>0:51</td>
<td>0:35</td>
</tr>
<tr>
<td>West</td>
<td>CIBC Hamilton Pan Am Soccer Stadium</td>
<td>74</td>
<td>1:32</td>
<td>1:07</td>
<td>2:01</td>
<td>1:20</td>
</tr>
<tr>
<td>West</td>
<td>Royal Canadian Henley Rowing Centre*</td>
<td>110</td>
<td>1:47</td>
<td>1:23</td>
<td>2:11</td>
<td>1:31</td>
</tr>
<tr>
<td>West</td>
<td>Mississauga Sports Centre</td>
<td>34</td>
<td>1:00</td>
<td>0:43</td>
<td>1:20</td>
<td>0:51</td>
</tr>
<tr>
<td>Zone</td>
<td>Venue/Cluster</td>
<td>Distance from Athletes’ Village (km)</td>
<td>Average PM Peak Period Travel Time from Athletes’ Village – Without GRN Traffic Mgmt Measures</td>
<td>Average PM Peak Period Travel Time from Athletes’ Village – With GRN Traffic Mgmt Measures</td>
<td>95&lt;sup&gt;th&lt;/sup&gt; Percentile PM Peak Period Travel Time from Athletes’ Village – Without GRN Traffic Mgmt Measures</td>
<td>95&lt;sup&gt;th&lt;/sup&gt; Percentile PM Peak Period Travel Time from Athletes’ Village – With GRN Traffic Mgmt Measures</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------------------</td>
<td>--------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>West</td>
<td>Cisco Milton Pan Am/Parapan Am Velodrome</td>
<td>61</td>
<td>1:22</td>
<td>1:05</td>
<td>1:50</td>
<td>1:19</td>
</tr>
<tr>
<td>West</td>
<td>Pan Am Bowling Centre</td>
<td>26</td>
<td>0:38</td>
<td>0:30</td>
<td>0:51</td>
<td>0:35</td>
</tr>
<tr>
<td>West</td>
<td>Welland Pan Am Flatwater Centre*</td>
<td>143</td>
<td>2:07</td>
<td>1:44</td>
<td>2:36</td>
<td>1:58</td>
</tr>
<tr>
<td>North</td>
<td>Pan Am Cross-Country Centre*</td>
<td>115</td>
<td>1:52</td>
<td>1:25</td>
<td>2:29</td>
<td>1:39</td>
</tr>
<tr>
<td>North</td>
<td>Caledon Pan Am Equestrian Park*</td>
<td>95</td>
<td>1:37</td>
<td>1:10</td>
<td>2:11</td>
<td>1:21</td>
</tr>
<tr>
<td>North</td>
<td>Canadian Tennis Centre</td>
<td>41</td>
<td>0:56</td>
<td>0:35</td>
<td>1:26</td>
<td>0:42</td>
</tr>
<tr>
<td>North</td>
<td>Hardwood Mountain Bike Park*</td>
<td>134</td>
<td>1:57</td>
<td>1:30</td>
<td>2:31</td>
<td>1:42</td>
</tr>
<tr>
<td>North</td>
<td>Minden Wild Water Preserve*</td>
<td>196</td>
<td>3:02</td>
<td>2:33</td>
<td>3:51</td>
<td>2:37</td>
</tr>
<tr>
<td>North</td>
<td>Pan Am Shooting Centre*</td>
<td>92</td>
<td>1:37</td>
<td>1:12</td>
<td>2:09</td>
<td>1:21</td>
</tr>
<tr>
<td>North</td>
<td>CIBC Pan Am/Parapan Am Athletics Stadium</td>
<td>41</td>
<td>0:56</td>
<td>0:35</td>
<td>1:26</td>
<td>0:42</td>
</tr>
<tr>
<td>East</td>
<td>Abilities Centre</td>
<td>53</td>
<td>1:15</td>
<td>0:47</td>
<td>1:48</td>
<td>0:57</td>
</tr>
<tr>
<td>East</td>
<td>President’s Choice Ajax Pan Am Ball Park</td>
<td>51</td>
<td>1:08</td>
<td>0:42</td>
<td>1:40</td>
<td>0:50</td>
</tr>
<tr>
<td>East</td>
<td>Angus Glen Golf Club</td>
<td>35</td>
<td>1:01</td>
<td>0:32</td>
<td>1:28</td>
<td>0:38</td>
</tr>
<tr>
<td>Zone</td>
<td>Venue/Cluster</td>
<td>Distance from Athletes’ Village (km)</td>
<td>Average PM Peak Period Travel Time from Athletes’ Village – Without GRN Traffic Mgmt Measures</td>
<td>Average PM Peak Period Travel Time from Athletes’ Village – With GRN Traffic Mgmt Measures</td>
<td>95th Percentile PM Peak Period Travel Time from Athletes’ Village – Without GRN Traffic Mgmt Measures</td>
<td>95th Percentile PM Peak Period Travel Time from Athletes’ Village – With GRN Traffic Mgmt Measures</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------------</td>
<td>--------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>East</td>
<td>Markham Pan Am/Parapan Am Centre</td>
<td>30</td>
<td>0:52</td>
<td>0:25</td>
<td>1:19</td>
<td>0:30</td>
</tr>
<tr>
<td>East</td>
<td>Oshawa Sports Centre</td>
<td>61</td>
<td>1:20</td>
<td>0:52</td>
<td>1:56</td>
<td>1:04</td>
</tr>
<tr>
<td>East</td>
<td>CIBC Pan Am/Parapan Am Aquatics Centre and Fieldhouse</td>
<td>30</td>
<td>0:45</td>
<td>0:25</td>
<td>1:08</td>
<td>0:29</td>
</tr>
<tr>
<td>East</td>
<td>University of Toronto Scarborough Tennis Centre</td>
<td>30</td>
<td>0:45</td>
<td>0:25</td>
<td>1:08</td>
<td>0:29</td>
</tr>
<tr>
<td>Other</td>
<td>Toronto Pearson International Airport</td>
<td>29</td>
<td>0:39</td>
<td>0:31</td>
<td>0:53</td>
<td>0:36</td>
</tr>
</tbody>
</table>

Exhibit 32 footnote: Venues being considered for proposed satellite accommodations.
# Exhibit 33: PM Peak Period Games Family Travel Times between Venues and Satellite Accommodations

<table>
<thead>
<tr>
<th>Satellite Accommodation</th>
<th>Venue</th>
<th>Distance from Satellite Accommodation (km)</th>
<th>Average PM Peak Period Travel Time from Satellite Accommodation</th>
<th>95th Percentile PM Peak Period Travel Time from Satellite Accommodation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caledon (Mono)</td>
<td>Caledon Pan Am Equestrian Park</td>
<td>13</td>
<td>0:14</td>
<td>0:18</td>
</tr>
<tr>
<td>Caledon (Mono)</td>
<td>Pan Am Cross-Country Centre</td>
<td>23</td>
<td>0:21</td>
<td>0:28</td>
</tr>
<tr>
<td>Cookstown (New Tecumseth)</td>
<td>Hardwood Mountain Bike Park</td>
<td>58</td>
<td>0:41</td>
<td>0:43</td>
</tr>
<tr>
<td>Cookstown (New Tecumseth)</td>
<td>Pan Am Shooting Centre</td>
<td>14</td>
<td>0:12</td>
<td>0:13</td>
</tr>
<tr>
<td>Minden (Dysart et al)</td>
<td>Minden Wild Water Preserve</td>
<td>14</td>
<td>0:16</td>
<td>0:17</td>
</tr>
<tr>
<td>St. Catharines</td>
<td>Royal Canadian Henley Rowing Centre</td>
<td>16</td>
<td>0:19</td>
<td>0:20</td>
</tr>
<tr>
<td>St. Catharines</td>
<td>Welland Pan Am Flatwater Centre</td>
<td>25</td>
<td>0:23</td>
<td>0:26</td>
</tr>
</tbody>
</table>
Games-Time Operations, Enforcement and Incident Response

Operational responsibilities for GRN roads will remain with the relevant road authority (i.e. MTO, regional, or local municipality) and be coordinated through the Unified Transportation Coordination Centre (UTCC). The UTCC will have a cross-boundary coordination and information communications role in monitoring and operating the GRN. Operational plans will be prepared that set out the arrangements across the whole transportation domain, including the GRN.

During the Games, the main emphasis will be on traffic management measures; however, enforcement will be necessary to ensure reasonable compliance and to keep traffic flowing. Enhanced incident response times and, where possible, quick clearance initiatives will be in place for both traffic enforcement purposes, and to deal with breakdowns or incidents.

Public Engagement and Information Strategy

A public engagement and information strategy will be developed for the GRN and owned by the Integrated Communications Group (ICG). The ICG will coordinate with delivery partners to develop appropriate communication channels and material in order to:

- Foster an accurate understanding of the GRN among decision makers and key stakeholders;
- Publicize the location, timing, operation and likely impacts of the GRN to road users and nearby businesses and residents;
- Gain public acceptance of and support for the GRN in advance of the Games; and,
- Daily during the Games, identify which routes are in operation and what action motorists should take.

2.5. Games Transit Network

A “transit-first” approach will encourage Games spectators to choose public transit while showcasing the region’s ability to host world-class events. It will involve service improvements to address gaps and needs, useful travel planning tools and customer service, and transit fares integrated with Games tickets.

Public transit is an essential component of the Games transportation strategy, and an effective way to move spectators, Games workforce, and residents. Transit will make it easier to travel to and from events, reduce local traffic impacts around venues, and deal with transportation network constraints.
A “transit-first” Games transportation strategy will require only incremental changes to transit networks and services, making more effective use of existing fleet and infrastructure. Many venues served by existing routes may have more frequent service to respond to increased spectator demand. Others face gaps in terms of direct or fast service, which can be addressed through temporary route improvements during events.

2.5.1 Objectives

The objectives of the Games Transit Network are to:

- Create an attractive travel choice for Games-time travel, and achieve spectator travel mode share targets (see Section 2.1.3);

- Develop easy-to-understand transit options to and from venues – simple, direct, and efficient transit services will make it easier for Games travellers to take transit;

- Integrate transit fares with Games event ticketing;

- Showcase the region’s strong transit network including recent investments in infrastructure and services; and,

- Create potential for lasting legacy benefits in permanent changes to day-to-day modes of travel.

2.5.2 Planning Parameters

The following parameters around hours of service, demand, loading and accessibility will guide transit planning for the Games. It is probable that specific needs or constraints identified during the delivery planning phase will lead to some exceptions.

Hours of Service

Transit will serve spectator arrivals at a venue from two hours before the start of competition (i.e. when entrances open) until 30 minutes after the start of competition. Transit will serve spectator departures for one hour following the end of competition.

During an event, transit service will be provided in response to venue- and event-specific needs, such as the availability of existing service or multiple arrivals and departures from multi-event sessions.

Demand Parameters

Exhibit 34 presents the net venue spectator capacity and target transit mode share for each venue, the resulting transit demand per session, and the nature of current transit services. It also indicates whether additional transit service will be required to meet
Games spectator demand. More detailed service planning by the responsible transit systems be based on actual and forecast ticket sales as the Games approach.

**Load Standard**

The load standard represents an average volume of passengers on a transit vehicle and is typically set by each transit agency. When total hourly demand is known, it allows the required service frequency to be determined.

A typical passenger load standard adopted by transit systems for peak period service is 1.5 times the number of seats on a vehicle. For Games planning, this standard is recommended to provide a balance between service quality and cost effectiveness. This load standard will apply for any Games transit services that do not cross municipal boundaries. For services that cross municipal boundaries, a lower standard of 1.33 is required to meet the requirements of the Public Vehicles Act.

Exceptions may apply for long trips where a lower standard would allow more passengers to sit, or for short shuttles where a higher standard would help to contain costs by having more passengers stand.

**Accessibility**

Transit providers will meet the accessibility requirements of the Integrated Accessibility Standards Regulation in all aspects of Games-related transit services. This includes the use of accessible vehicles, stations, and stops.

**Service Delivery**

Local municipalities and transit service providers will be responsible for the delivery of the Games Transit Network. Service levels and details are subject to funding as per the Multi-Party Agreement and finalization of Municipal Service Agreements.

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Photo of the inside of TTC’s new Toronto Rocket subway train.

*Caption: The TTC's new Toronto Rocket subway trains began operation in 2011 on the Yonge-University-Spadina line. The new trains provide greater capacity and improved accessibility. Full delivery of the trains is expected to be complete in 2014.*
### Exhibit 34: Transit Providers and Demand by Venue

<table>
<thead>
<tr>
<th>Zone</th>
<th>Venue/Cluster</th>
<th>Net Venue Capacity</th>
<th>Transit Mode Share Target</th>
<th>Transit Demand for Busiest Session</th>
<th>Served by Existing Transit</th>
<th>Transit Operators</th>
<th>Additional Transit Required*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown</td>
<td>CIBC Toronto Pan Am Park</td>
<td>34,400</td>
<td>55%</td>
<td>18,920</td>
<td>Yes</td>
<td>TTC, GO</td>
<td>Yes</td>
</tr>
<tr>
<td>Downtown</td>
<td>Nathan Phillips Square - Parapan Am Closing Ceremony</td>
<td>1,600</td>
<td>55%</td>
<td>880 (footnote 1)</td>
<td>Yes</td>
<td>TTC</td>
<td>No</td>
</tr>
<tr>
<td>Downtown</td>
<td>Pan Am Ceremonies Venue</td>
<td>36,000</td>
<td>55%</td>
<td>19,800</td>
<td>Yes</td>
<td>TTC, GO</td>
<td>Yes</td>
</tr>
<tr>
<td>Downtown</td>
<td>Pan Am/Parapan Am Fields</td>
<td>1,600</td>
<td>55%</td>
<td>880</td>
<td>Yes</td>
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<td>TTC, GO</td>
<td>No</td>
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<td>GO, HSR</td>
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<td>Transit Mode Share Target</td>
<td>Transit Demand for Busiest Session</td>
<td>Served by Existing Transit</td>
<td>Transit Operators</td>
<td>Additional Transit Required*</td>
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<td>-----------------------------------</td>
<td>---------------------------</td>
<td>------------------</td>
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### Zone

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<th>Venue/Cluster</th>
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<th>Transit Demand for Busiest Session</th>
<th>Served by Existing Transit</th>
<th>Transit Operators</th>
<th>Additional Transit Required*</th>
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Exhibit 34 footnotes:
* Additional Transit Required resulting from projected transit demand and/or limitations of existing transit service
TTC = Toronto Transit Commission; GO = GO Transit; HSR = Hamilton Street Railway; YRT = York Region Transit/Viva; BT = Brampton Transit; DRT = Durham Region Transit
Footnote 1: Transit trips for Nathan Phillips Square reflect Parapan American Games Closing Ceremony only
2.5.3 **Needs and Issues**

All Games venues have been reviewed and assessed to identify their relative need for transit improvements to meet spectator needs. This task considered existing and proposed transit services, background transit ridership and mode shares, pedestrian connections, competition schedules, and urban context. Three categories of venues resulted:

- **Transit-Ready Venues** have high transit potential, existing service, and would require less effort to provide quality transit service during the Games;
- **Transit-Achievable Venues** have medium transit potential, and would require moderate additional effort to provide quality transit service during the Games; and
- **Transit-Limited Venues** have little transit potential, and would require substantial additional effort to provide quality transit service during the Games.

**Transit-Ready Venues**

Many competition venues at the core of the Games already have high levels of transit service, connectivity, accessibility and ridership. They will require marginal improvements to meet Games-time transit demand. Venues in downtown Toronto are served by a mix of GO Transit rail and bus services and TTC subway and streetcar services. Several venues outside of downtown also have high transit accessibility, including those at York University, in Scarborough, and at Markham Centre. Games-time transit service at these venues will focus on using existing services and routes, providing accessible and direct pedestrian connections, and minimizing impact on background travel demand.

The following venues are transit-ready:

- **CIBC Pan Am Park** (EXC, TCO, EPS, PBV, LKS, OPW) – connected by TTC streetcar, GO Transit rail;
- **Downtown Toronto** (PAF, VAR, RCY, RYA, PAD) – connected by TTC subway, streetcar, GO Transit rail and bus;
- **York University Cluster** (YOR, CTC) – connected by TTC, YRT/Viva, Züm, GO Transit bus and limited rail service;
- **Scarborough** (PAC, UTS) – connected by TTC, GO Transit Bus, DRT/Pulse;
- **Markham Centre** (MAR) – connected by YRT/Viva, GO Transit bus and peak-period rail; and
- **Abilities Centre** (ABL) – connected by GO Transit rail and bus, DRT.
Transit-Achievable Venues

Transit-achievable venues are those where transit will play an important role, but have less existing service, indirect linkages or a longer distance to rapid transit. More effort and planning will be needed to achieve mode share targets at these venues. They include most suburban venues, as well as venues like CIBC Hamilton Pan Am Soccer Stadium and President's Choice Ajax Pan Am Ball Park that have moderate transit accessibility but large venue capacities and events that will draw spectators from across the region. Temporary or expanded routes and services are potential strategies for transit at transit-achievable venues. It will be important to minimize transfers and travel times, while maximizing service clarity and user understanding.

The following venues are transit-achievable:

- **CIBC Hamilton Pan Am Soccer Stadium (HAM)** – high spectator volumes with substantial regional draw anticipated; however, connecting bus service to required to connect to GO Rail service;

- **President’s Choice Ajax Pan Am Ball Park (AJX)** – served by existing DRT service to Ajax GO Station, but needs more frequent or express service;

- **Mississauga Sports Centre (MIS)** – existing service only operates during limited hours;

- **Oshawa Sports Centre (OBX)** – served by DRT/Pulse but without frequent, direct connections to GO Transit’s Lakeshore line;

- **Centennial Park (CEB and PLB)** – limited transit service from the TTC subway;

- **Cisco Milton Pan Am/Parapan Am Velodrome (MIV) and Angus Glen Golf and Country Club (ANG)** – existing local transit does not serve venue;

- **Royal Canadian Henley Rowing Centre (HEN)** – improved local connections possible between GO Transit and the venue; and

- **Welland Pan Am Flatwater Centre (WFC)** – local transit service is provided in the vicinity of the venue and could be extended to meet Games travel needs.

Transit-Limited Venues

Transit-limited venues are those with low potential due to travel distances, competition schedule challenges, or the lack of a local transit provider. Transit could capture a meaningful share of spectator travel at these venues only with significant investment and effort. Any realistic transit opportunities that do exist for Games travel will be pursued at the discretion of the local municipality, but it is expected that transit service will be limited or unavailable at these venues. Other strategies such as carpooling will be encouraged to serve travel demands efficiently and sustainably.
The following venues are transit-limited:

- Pan Am Cross-Country Centre (CCE);
- Caledon Pan Am Equestrian Park (CEP);
- Hardwood Mountain Bike Park (HRD);
- Minden Wild Water Preserve (MWW); and,
- Pan Am Shooting Centre (TTS).

2.5.4 Strategies

Exhibit 36 and Exhibit 37 illustrate the Games Transit Network for the Pan Am and Parapan Am Games, respectively (note that routes identified as serving individual venues are preliminary and will be refined in the Delivery Planning phase through detailed service and operational planning). It has six main elements, as presented in Exhibit 35:

1. The Base Transit Network: Games-time transit will build upon existing local and regional transit services that move millions of passengers daily. The base network provides a comprehensive web of routes that stretches to serve communities across the region. These routes also provide connectivity to the regional rapid transit network.

2. Core Rapid Transit Network: Existing TTC subway and GO Transit rail services form an effective rapid transit backbone in the Greater Golden Horseshoe, with the capability to transport large numbers of spectators over long distances.

3. Existing Services to Venues: Many venues are located on existing transit routes that provide a high quality service, such as TTC's streetcar network and express and “rocket” bus routes, York Region’s Viva bus rapid transit, and Durham Region's Pulse service. Increasing frequency on these existing routes can provide spectator-carrying capacity.

4. Temporary Games Routes: Building upon existing services, temporary Games transit routes will provide direct, event-day linkages between venues, rapid transit, and other existing services. These services will be especially important where venues are not located on existing transit services or where there is not a direct connection to the rapid transit network. These requirements are in addition to the expected increases in existing services noted previously.

5. Games Mobility Hubs: Games Transit Network services will be focused at Games Mobility Hubs on the rapid transit network, which will act as points of interchange to transfer to venue-specific services. Games Mobility Hubs will enhance the overall transportation experience with common look-and-feel and volunteers on event days to assist travelling spectators. Where parking is available at stations, these can serve as satellite parking lots for venues.
6. Event-Day Transit Ticket Integration: To encourage the use of transit, transit ticket integration will be provided as part of the event-day ticket. Using this ticket, spectators will be able to board transit to travel to and from the event.

Exhibit 35: Games-time Transit Concept
Exhibit 36: Games Transit Network – Pan Am Games
Exhibit 37: Games Transit Network – Parapan Am Games
Core Rapid Transit Network

The Core Rapid Transit Network will be the Games transit backbone, providing high-speed, high-capacity, and high-frequency service across most of the region. The following paragraphs describe its key components.

TTC Subway Service

TTC subway services have the ability to operate more frequently during the Pan Am Games, as required, to carry spectator and visitor volumes as well as a higher background transit demand arising from transportation demand management strategies. During the Parapan Am Games, the smaller venue footprint and lower spectator demand mean that regular subway services will be sufficient.

Increasing subway service on busy days and for major events such as the opening and closing ceremonies may be required by increasing the frequency of trains or adding gap trains to accommodate surges in demand. Sunday morning subway service is recommended during both the Pan Am and Parapan Am Games if the competition schedule requires spectator travel prior to the typical Sunday subway opening at 9:00 a.m.

On evenings and weekends, TTC parking lots will be promoted for transit users or as satellite parking.

GO Transit Lakeshore Rail

GO Transit will provide 30-minute or better service on the Lakeshore East and West Lines between Aldershot and Oshawa Stations throughout the day.

Special trips will be provided on the Lakeshore West line to James Street North Station during the Pan Am Games for events at the CIBC Hamilton Pan Am Soccer Stadium; connecting bus services will be provided by the City of Hamilton and Hamilton Street Railway.

Lakeshore West trains will also serve Exhibition Station as the main GO Transit access point for CIBC Toronto Pan Am Park; spectators travelling from other GO Rail corridors or GO Bus will need to transfer at Union Station to the Lakeshore West line or to TTC services.

Spectators will be encouraged to use parking lots at GO Transit stations, particularly at lots with available capacity, in evenings, and on weekends.
Other GO Transit Rail Lines

Special GO Transit rail trips on other corridors may be provided for larger events such as the Pan American Games Opening and Closing ceremonies, subject to rail corridor, fleet, and crew availability.

Summer seasonal rail service to Niagara Falls on the Lakeshore West line and to Allandale Waterfront on the Barrie Line is planned on weekends during the Games.

The Games Transportation Story

Marcus and Jill and children: Cheering on Team Canada

Marcus and Jill and their two children live in Mississauga and are planning on spending a day of their summer vacation cheering on Team Canada at track and field events at York University. Jill uses a wheelchair, so they purchase Games tickets for a wheelchair space and 3 companion tickets on the Toronto 2015 website in autumn 2014. They have received a number of e-mails since which included information about the event and travel. One message included information and details about the best way to travel to the event and that parking was limited at the venue. Initially they planned to drive, but taking the advice in the e-mails, having seen and heard information about the likely increased congestion on the roads caused by the Games Route Network and road races, they instead decided to try transit. Marcus visits the Toronto 2015 website and plans a trip to the venue. He also learns that their Games tickets entitle them to travel on transit to and from their event. They also wanted to travel to the celebration site at Nathan Philips Square later in the day to watch a live performance from the oldest daughter’s favourite pop singer. Marcus plans a journey from the venue to the celebration site and prints off some handy venue maps.

Jill logs onto the Games transportation information website a month before the Games and gets accessible directions provided by the trip planner and reads information about leaving plenty of time for travel. The website also notes that Kipling and Jane Stations are accessible subway stations with elevators from street level to trains and buses.

On the day of the event, the family arrives at Kipling Station by car. They park their car, follow the Games wayfinding signage from the parking lot to the station. At Kipling Station, they see a transit map showing the names of the venues and the recommended Games Mobility Hub, which matches the information on the website. They hop aboard the subway where an announcement three stops later reminds them to transfer at Jane Station to buses to York University for the Pan Am Games.

At Jane Station, there is Games signage to the buses for York University for the Pan Am Games. Volunteers at platform level direct them to a waiting bus at
street level and the family uses the elevator at the station to get to the bus at street level. The bus, a regular service Jane Express, operated with accessible vehicles, is marked with a Pan Am Games logo in the windshield, and the driver ushers them aboard the bus. After travelling through the west end of Toronto, the family arrives at York University, ready to cheer.

Utilization of Existing Services to Venues

- Maximizing the use of existing transit services and capacity to Games venues will help contain operational costs. Existing transit routes can be supplemented with extra service, and minor route adjustments (to be finalized as part of detailed venue transportation planning) to serve Games venues more directly. It will be important to:
  - Indicate the route and destination during spectator trip planning;
  - Clearly identify vehicles on routes that serve Games venues;
  - Work with transit operators to communicate and mitigate impacts on existing transit customers; and,
  - Make available standby vehicles within the City of Toronto to respond to changing day-to-day travel needs during the Games.

Ridership on transit is expected to be greater during the Games as a result of transportation demand management strategies and an increase in regional visitors. This additional demand will generally be accommodated within existing capacity and service levels.

Temporary Transit Services

Temporary transit services are proposed to connect several Games venues to the overall transit network. These temporary Games transit services will:

- Be operated by local transit providers;
- Operate only on event days and times to transport spectators to and from venues;
- Operate from Games Mobility Hubs that offer connections to other transit services, a common look and feel, and travel assistance;
- Clearly identify vehicles, routes, and loading areas;
- Incorporate park and ride, where feasible; and,
- Use accessible conventional transit vehicles with priority access for persons who rely on mobility devices.
Local transit providers will plan and operate temporary services, and PATT will coordinate these services across the network and will be incorporated in Municipal Service Agreements.

Preliminary estimates of the additional service hours required to serve spectator travel are provided in Exhibit 38.

**Games Mobility Hubs**

On event days, Games Mobility Hubs will provide clear and convenient connections between the core rapid transit network and Games transit services, complemented by helpful volunteers to help spectators on their way. Their locations are shown in Exhibit 36 and Exhibit 37.

Games Mobility Hubs are existing transit stations with waiting areas and connections to other local transit routes. Several have park-and-ride lots that can offer satellite parking for spectators.

All designated Games Mobility Hubs will be accessible and barrier-free, with increased monitoring of elevator and escalators by the operating agency.

Wayfinding and signage will be a key feature of Games Mobility Hubs. A seamless spectator travel experience will be supported by common signage terminology, placement, and look and feel.

Games Mobility Hubs can also serve as locations to facilitate walking and cycling, and integrated bike rental or sharing programs at Hubs can encourage spectators to cycle to venues with cycling potential.

Games Mobility Hub planning will be conducted with support and guidance from PATT and subject to Municipal Service Agreements.
### Exhibit 38: Estimated Additional Transit Service Hours by Venue

<table>
<thead>
<tr>
<th>Zone</th>
<th>Venue/Cluster</th>
<th>Estimated Total Transit Trips Pan Am Games</th>
<th>Estimated Additional Service Hours Pan Am Games</th>
<th>Estimated Total Transit Trips Parapan Am Games</th>
<th>Estimated Additional Service Hours Parapan Am Games</th>
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</thead>
<tbody>
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Exhibit 38 footnotes:

NOTE: Hours based on additional service above existing capacity, venue target transit mode share, and temporary or existing routes as shown in Games Transit Network exhibits.

Footnote 1: Transit trips to and from Nathan Phillips Square cultural site during the Pan American Games to be determined pending further detail on events and capacity. Transit trips for Parapan American Games reflect Closing Ceremony only.
Transit Ticket Integration – Event-Day Travel

The integration of transit fares and Games event ticketing is an important means of encouraging and simplifying transit use by spectators. For users, integrated ticketing is convenient, easy to understand, and encourages exploration of the region. For organizers and transit providers, it creates a positive Games experience, minimizes transit operator and staff training needs, reduces road congestion, and helps optimize mobility and resource utilization during the Games.

Principles to guide transit ticket integration include:

- On the day of an event, tickets (mailed, printed, or e-ticket) for that event will allow ticket holders to travel to and from the relevant venue on conventional or specialized transit systems;
- Event tickets will act as the fare medium and spectators will present their Games ticket to a bus operator or fare inspector for visual inspection, thus avoiding the need for special equipment on buses or at stations; and,
- Event tickets will be valid on GO Transit and any local operator that connects directly to GO Rail service, including the TTC.

Funding options being explored for event-day travel through transit ticket integration include:

- Direct partner funding;
- Sponsorship; and,
- Partial surcharge on tickets.

Transit Ticket Integration details are being finalized and are subject to Municipal Service Agreements.

Games Family and Games Staff and Volunteer Accreditation on Transit

During the Pan Am/Parapan Am Games, Games Family and volunteers will be able to access transit with their TO2015 accreditation badges. This TO2015 client group includes volunteers, paid/temporary staff as well as athletes, officials, media, and PASO and IPC members. TO2015 accreditation badges will be designed to allow easy inspection by transit operations staff.

Preliminary projections are that peak travel of the above group is estimated between 8,000 to 12,000 Games workforce (paid/temporary staff, volunteers and contractors) on Pan Am Games Day 8. Games workforce travel will be distributed amongst approximately 30+ games venues (north venues excluded due to lack of transit service).
Games workforce arrival and departure profile tends to be earlier and later than spectator travel as per TO2015 transportation assumptions. Overall it is expected that travel demand created by the Games workforce will be modest.

The following considerations will affect the next phase of the planning for the Games: (1) due to travel demand shift, the impact on transit service needs is expected to be limited; and, (2) alternate transportation may have to be provided in order to accommodate workforce travel that occurs outside of regular transit service hours.

2.6. Accessible Transportation

Accessible (or barrier-free) transportation serves people who have functional limitations such as physical, cognitive or sensory disabilities. It will be a high priority during the Games so that people of all abilities can participate, cheer and celebrate together. Strategies will focus on the availability of accessible conventional transit services, supplemental specialized transit services and accessible parking spaces.

2.6.1 Objectives

The objectives for accessible transportation during the Games are to:

- Enable spectators with accessibility needs to reach venues;
- Help spectators with accessibility needs to understand their options for reaching venues, and to feel confident about those options;
- Minimize the degradation of existing specialized transit services during the Games; and,
- Maximize inclusivity within the disability community.

2.6.2 Planning Parameters

Toronto 2015 plans to reserve 1% of seating capacity at Games venues for persons who use a mobility device and expects that up to 10% of ticketed spectators (about 130,000) may require specialized transportation. The Games will increase demand for accessible transportation services in the Greater Golden Horseshoe, and many of these trips will cross multiple municipal boundaries.

Facilities that form part of the accessible transportation strategy must comply with applicable legislation and regulation, including the Accessibility for Ontarians with Disabilities Act (AODA) and the Integrated Accessibility Standards Regulation (IASR). They must also integrate universal design standards that ensure accessibility for all.
2.6.3 Needs and Issues

The added demand for accessible travel during the Games could place untenable operating and financial burdens on existing municipal specialized transit services, which now operate at capacity. Existing conventional transit routes conform to the IASR, but would be challenged in meeting Games demand. Furthermore, the geographic dispersion of Games activity would require cross-boundary travel to reach many venues, something that is already difficult by specialized transit due to the need for multiple trip bookings and coordinated transfer times. Another consideration is that many people with mobility disabilities rely on automobiles and accessible parking spaces, but parking at Games venues will be limited.

While no specific unresolvable problems are anticipated, accessible transportation solutions for the Games will be based on the specifics of each travel corridor and venue. For example, longer distance travel needs (e.g. between Toronto and Hamilton) will be met through scheduled (express) accessible routes, while local travel needs may be met through expanded demand-responsive services.

Successful delivery of this strategy will involve or require:

- Recognition of the diverse functional limitations and mobility needs of people with disabilities;
- Provision of attendants/transit ambassadors at transit hubs;
- Consultation with disability organizations and stakeholders to ensure that the strategy will meet requirements; and,
- Integration of accessibility information into journey planning, signage and wayfinding.

Photo of accessible shuttle stop at London 2012 Summer Olympic Games.

Caption: Contracted accessible shuttles were utilized in London during the Olympics to provide connections between accessible transit stations and venues.
2.6.4 Strategies
The strategies identified below provide a framework for further operation and service planning.

Venue-Specific Measures
Detailed venue-specific planning will be needed due to:

- A variety of urban, suburban and rural venue settings;
- Varying levels of accessible transportation services, including parking;
- Differing venue geographies and built environments; and,
- The results of accessibility audits.

Measures that will be applied at specific venues, where warranted, include:

- Accessible conventional transit services where they are provided for spectator travel;
- Drop-off and pick-up facilities for accessible bus services;
- Load zones and parking for spectator coach services;
- Load zones for taxis;
- Pre-booked car parking for Accessible Parking Permit holders;
- Park-and-ride operations, including remote car parking and accessible shuttle bus services with load zones at each end of the trip; and,
- Steps to ensure accessible paths of travel between accessible transportation services and venue entrances.

Conventional Transit Service
All conventional transit services provided during the Games will be accessible (as discussed in Section 2.5). Temporary and regular service routes designated for travel to and from venues will connect to Games Mobility Hubs where accessible connections to rapid transit will be available.

Accessible Shuttle to Rapid Transit
There are some venues where a designated walking route is identified from the nearest rapid transit station to the venue spectator entrance. Examples of this include venues located in downtown Toronto, at CIBC Toronto Pan Am Park, and at Abilities Centre in Whitby.
An accessible shuttle service may be required to link venues to the designated rapid transit station. These shuttle services could be sourced in a number of ways:

- Using a limited number of accessible, purpose-built school buses during the Games period;
- Contracts with for-profit shuttle van providers (including those currently providing non-emergency medical transportation); or,
- Agreements with transit agencies to defer retirement of specialized transit vehicles (e.g. those scheduled to be retired in 2014) and make them available for the Games.

The need for accessible shuttles will be determined at the venue-planning level.

**Specialized Transit Services**

Specialized transit services are door-to-door municipal transit services, booked in advance by people who are unable to use accessible conventional transit. They are provided in much of the Greater Golden Horseshoe, but due to capacity constraints, will need to be supplemented through contracts with for-profit van and shuttle service providers using accessible, purpose-built school buses.

Direct, no-transfer specialized services across municipal boundaries are desirable, either through coordination of services from municipal providers and/or through special contracts. This could also be achieved through the coordination of requests and bookings during the Games, subject to further work to address administrative and governance needs.

**Taxis**

To increase the availability of accessible taxis during the Games, it is recommended that temporary taxi/livery cabs be licensed to for-profit shuttle providers, as a pilot project. Some elements of the City of Toronto Taxicab Industry Review, for which a final report was presented in January 2014, may have impacts on Games-time services.

**Parking**

The quantity and location of accessible parking will vary among venues based on the availability of other accessible transportation options. Pre-booked accessible parking spaces will be provided where possible, limited to spectators who hold a valid Accessible Parking Permit, and only available for the duration of a prescribed event. Further work will identify parking availability at each venue, the preferred approach to eligibility, and administrative and governance needs to coordinate a centralized system for accessible parking reservations.
Travel Guidance and Support

Accessible transportation advice for spectator travel will be made available through both pre-event travel information (e.g. spectator guides and website travel information) and en-route information (e.g. mobile travel information, wayfinding and signage, volunteers, travel ambassadors, and customer service personnel).

2.7. Active Transportation

Walking and cycling will play an important role in moving spectators during the Games. Venues will welcome pedestrians and cyclists with strategic connections and safe, secure facilities.

Walking and cycling can give spectators more flexibility in their schedules, since they do not have to wait to be picked up or worry about getting caught in traffic congestion. When spectators choose active modes, it lightens the load on transit vehicles, roads and parking lots. Walking and cycling reinforce the healthy and active spirit of the Games and promote the Greater Golden Horseshoe as a vibrant region.

Active travel will be promoted at all venues, but it will be particularly prominent at venues in downtown Toronto. Downtown is the heart of the Pan Am and Parapan Am Games, with 12 of 34 competition venues, the CIBC Pan Am/Parapan Am Athletes' Village, media and Games Family hotels, road race routes, and Games celebration sites. Downtown’s transit accessibility, constrained parking supply, and excellent walking and cycling environments will encourage spectators to walk or bike to venues without experiencing or adding to everyday traffic levels.

2.7.1 Objectives

The key active transportation objectives during the Games will be to:

- Achieve walking and cycling mode share targets for spectator travel (as outlined in Section 2.1.3);
- Reinforce an overall active and healthy message of the Games;
- Showcase the region through animated public spaces; and,
- Facilitate dispersed parking by encouraging walking to access venues.
2.7.2 Planning Parameters

The consideration of cycling needs in city planning activities has improved significantly over the past decade and most local and regional municipalities in the GGH have either approved active transportation plans or moved to significantly increase the role of walking and cycling in their transportation master plans. Significant cycling and walking improvements are anticipated in coming years, particularly in suburban areas.

Section 2.1.3 identifies mode share targets for spectator travel to and from Games venues. These targets have informed estimates of bicycle parking needs and the prioritization of bikeway and sidewalk improvements. While accurately predicting walking and cycling demands is challenging, the achievement of targets can be considerably influenced by Games-related transportation demand management (TDM) initiatives. A few venues have provided results of spectator travel surveys, which provide an important reference for the Games mode share targets. The regional Transportation Tomorrow Survey (TTS) gathered information on travel patterns around venues in 2006, but is of limited direct applicability to special events; however, the venue surveys confirm that TTS offers a reasonable estimate of combined walking and cycling shares for venue access trips.

2.7.3 Needs and Issues

The primary planning challenges for supporting walking and cycling access revolve around coordinating with local initiatives, and incorporating walking and cycling into a wayfinding strategy.

The actual demand for bicycle parking at Games venues will depend on factors such as the distance from spectators' origins to the venue, the weather, the location of parking relative to the venue entrance, the visibility of bicycle parking, and the level of promotion and TDM efforts. Given the approximate nature of the walking and cycling targets, the preferred approach to estimating bicycle parking demand is the use of simple minimum capacity requirements to be adjusted based on venue context.

Valet bicycle parking is an option where bicycle use is high. Past experience with large events shows that valet bicycle parking is busier when located near the venue entrance (within one block) or on a key access route, and when it is offered at free, outdoor events that attract younger audiences. There is potential for volunteers and workforce to travel by bicycle and use secure valet parking where available. Typical valet bicycle parking involves a simple tagging system run by volunteers, temporary fencing and bike racks. Costs are generally very low because 100 bicycles can be stored in 150 square metres of space, which would only be enough for 5 or 6 cars. Costs do increase when it is necessary to accommodate more bicycles or longer operating hours.
2.7.4 **Strategies**

**Pedestrian Realm**

- Diverse stakeholders will be engaged to help enhance public spaces along priority walking and cycling routes, such as through public art installations.

- Where large pedestrian volumes are expected, temporary pedestrian or transit malls will be explored, possibly forming a network that could also be used by residents. Where possible, these spaces will be integrated into cultural events such as the Celebrate Yonge festival, or into newly inaugurated pedestrian realm improvements, such as the revitalization of Queen's Quay Boulevard.

- Principal venue access routes will be identified and AODA compliance will be ensured for these routes.

- Local Business Improvement Areas (BIAs) will be encouraged to organize Games-themed street events to enhance the walking experience for visitors, while also enhancing the local economic impacts of the Games.

**Cycling Access**

- Existing cycling infrastructure will be used where possible, but legacy options will be explored.

- Cycling is a key element of the Strategic Framework for Transportation and Toronto's BIXI bike share program is expected to play a significant role in improving bicycle access to downtown venues. City Council has endorsed in principle (subject to final approval through the 2014 budget process) an expansion of the BIXI service area, around key venue sites, as a Host City Showcase Program initiative. At higher cycling demand venues, the option of a staffed BIXI drop-off point will be explored to reduce the need for extensive BIXI station infrastructure.

- For venues where the cycling mode share is expected to be high, options for temporary Games-time bikeways will be explored to supplement existing bikeway infrastructure.

- Improving walking and cycling access to Games venues requires consideration of primary walking and cycling desire lines, and responses to them through accelerated implementation of bikeways, sidewalk infills, bicycle parking, and pedestrian accessibility initiatives identified in the area’s relevant master plans and secondary plans.
## Exhibit 39: Minimum Bicycle Parking Required by Venue

<table>
<thead>
<tr>
<th>Zone</th>
<th>Venue/Cluster</th>
<th>Net Venue Capacity</th>
<th>Active Mode Share Target</th>
<th>Minimum Bicycle Parking Required *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown</td>
<td>CIBC Toronto Pan Am Park</td>
<td>34,400</td>
<td>15%</td>
<td>520</td>
</tr>
<tr>
<td>Downtown</td>
<td>Nathan Phillips Square - Parapan Am Closing Ceremony</td>
<td>1,600</td>
<td>25%</td>
<td>40</td>
</tr>
<tr>
<td>Downtown</td>
<td>Pan Am Ceremonies Venue</td>
<td>36,000</td>
<td>25%</td>
<td>900</td>
</tr>
<tr>
<td>Downtown</td>
<td>Pan Am/Parapan Am Fields</td>
<td>1,600</td>
<td>25%</td>
<td>40</td>
</tr>
<tr>
<td>Downtown</td>
<td>Royal Canadian Yacht Club</td>
<td>TBD</td>
<td>25%</td>
<td>TBD</td>
</tr>
<tr>
<td>Downtown</td>
<td>Ryerson Athletic Centre</td>
<td>2,400</td>
<td>25%</td>
<td>60</td>
</tr>
<tr>
<td>Downtown</td>
<td>Varsity Stadium</td>
<td>1,600</td>
<td>25%</td>
<td>40</td>
</tr>
<tr>
<td>West</td>
<td>Centennial Park Pan Am BMX Centre</td>
<td>1,600</td>
<td>10%</td>
<td>20</td>
</tr>
<tr>
<td>West</td>
<td>CIBC Hamilton Pan Am Soccer Stadium</td>
<td>18,000</td>
<td>15%</td>
<td>270</td>
</tr>
<tr>
<td>West</td>
<td>Royal Canadian Henley Rowing Centre</td>
<td>1,800</td>
<td>5%</td>
<td>10</td>
</tr>
<tr>
<td>West</td>
<td>Mississauga Sports Centre</td>
<td>3,320</td>
<td>5%</td>
<td>10</td>
</tr>
<tr>
<td>West</td>
<td>Cisco Milton Pan Am/Parapan Am Velodrome</td>
<td>1,600</td>
<td>5%</td>
<td>80**</td>
</tr>
<tr>
<td>West</td>
<td>Welland Pan Am Flatwater Centre</td>
<td>880</td>
<td>5%</td>
<td>10</td>
</tr>
<tr>
<td>North</td>
<td>Pan Am Cross-Country Centre</td>
<td>8,000</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>North</td>
<td>Caledon Pan Am Equestrian Park</td>
<td>3,200</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>North</td>
<td>Hardwood Mountain Bike Park</td>
<td>4,200</td>
<td>5%</td>
<td>190**</td>
</tr>
<tr>
<td>North</td>
<td>Minden Wild Water Preserve</td>
<td>400</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>North</td>
<td>Pan Am Shooting Centre</td>
<td>280</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>North</td>
<td>York University Pan Am/Parapan Am Complex</td>
<td>10,000</td>
<td>10%</td>
<td>100</td>
</tr>
<tr>
<td>East</td>
<td>Abilities Centre</td>
<td>600</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>East</td>
<td>President's Choice Ajax Pan Am Ball Park</td>
<td>6,400</td>
<td>5%</td>
<td>40</td>
</tr>
<tr>
<td>East</td>
<td>Angus Glen Golf Club</td>
<td>1,600</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>East</td>
<td>Markham Pan Am/Parapan Am Centre</td>
<td>3,200</td>
<td>5%</td>
<td>20</td>
</tr>
<tr>
<td>East</td>
<td>Oshawa Sports Centre</td>
<td>2,400</td>
<td>10%</td>
<td>30</td>
</tr>
<tr>
<td>East</td>
<td>Scarborough Pan Am/Parapan Am Complex</td>
<td>6,000</td>
<td>10%</td>
<td>60</td>
</tr>
</tbody>
</table>

Exhibit 39 footnotes:
* Assuming 10% of active trips are bike trips, rounded to nearest 10 spaces (with a minimum of 10)
**Assuming 90% of active trips are bike trips
Bicycle Parking

- Secure permanent or monitored temporary bicycle parking will be provided for venues with an active mode share over 0%, as close to venue entrances as possible.

- Bicycle parking facilities will need to accommodate tandem, recumbent and modified bikes for persons with disabilities and path of travel from bicycle parking/valet area to the venue entrance.

- Bicycle parking facilities will be provided for at least 10% of a venue’s walking and cycling mode share target (see in Section 2.8.3). Exhibit 39 summarizes the minimum bicycle parking supply requirement for each venue.

- Where spectator bicycle parking demand targets exceed 100 spaces and at venues where the Venue Transportation Working Group deems bike valet parking to be important, municipalities will seek to establish valet bicycle parking. Similar to the Vancouver Olympics, bicycle valets during the Games will be contracted through the municipalities and not through TO2015 or MTO.

- Municipalities can engage with local cycling groups to help manage bicycle parking where needed.

Transportation Demand Management
(See Section 2.11 for more detail)

- Active transportation will figure prominently in all Games-related TDM efforts.

- Active transportation will be strongly encouraged in central Toronto, where walking and cycle trips could reduce transit demand. Encouraging use of less busy subway stations could relieve congestion at peak times.

- Where active transportation links to GO Transit stations exist, TDM measures to encourage walking or cycling to stations instead of driving could free up park-and-ride capacity,
2.8. Venue Parking

Due to operational and land use constraints, most Games venues will have limited or no on-site parking available for spectators. Auto access, however, will still play a role at many venues. Consequently, spectator parking, where present, will need to be coordinated, communicated, and managed to minimize transportation impacts.

2.8.1 Objectives

The greatest influence on spectators wishing to access Games events by automobile will be the availability of parking at and around venues. Many venues are likely to have less parking than at regularly hosted events, or even none at all. This is a result of the need to reserve parking for Games operations, such as large operational, broadcast and logistics compounds.

The key objectives of the Games parking strategy will be to:

- Prioritize parking needs of spectators with disabilities.
- Be sensitive to the local parking needs of each venue. Respect neighbourhoods by protecting non-event related parking and minimizing vehicle trips related to parking search.
- Provide clear spectator parking information, through pre-event spectator travel information and wayfinding information and signage.
- Improve and promote transit, walking and cycling options to reduce local traffic impacts, and/or provide satellite parking for venues.

Photo of parked vehicles in lot. Caption: One of the challenges during the Games is that the parking that is normally available for events at venues may not be available due to Games operations needs, traffic restrictions, or other reasons. In many cases, spectators will be encouraged to use transit.

2.8.2 Planning Parameters

Spectator parking will differ on a venue-by-venue basis. Different parking arrangements will be required at different venues. Venues generally fall into one of four parking categories (Exhibit 40).

For venues in downtown Toronto, no provision will be made for spectator parking. Communications to spectators will be to use transit first; however, projections on the number of spectators who will drive anyway will be used when developing traffic management strategies for each venue.
Exhibit 40: Venue Parking Category

<table>
<thead>
<tr>
<th>Venue Parking Category</th>
<th>On-Site</th>
<th>Off-Site</th>
<th>Satellite</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: On-site parking is sufficient for spectators as part of the Venue Use Agreement with TO2015 (based on the targeted auto mode share).</td>
<td>Yes</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>B: On-site parking is limited for spectators as part of the Venue Use Agreement with TO2015, and off-site parking is available around the venue.</td>
<td>Yes</td>
<td>Yes</td>
<td>N/A</td>
</tr>
<tr>
<td>C: On-site parking is not available as part of the Venue Use Agreement, but off-site parking is available around the venue.</td>
<td>N/A</td>
<td>Yes</td>
<td>N/A</td>
</tr>
<tr>
<td>D: On-site parking is not available as part of the Venue Use Agreement, and off-site parking is not available around the venue, so park-and-ride options are required.</td>
<td>N/A</td>
<td>N/A</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**On-Site Parking**

On-site parking is governed by the Venue Use Agreement between TO2015 and the venue owner. On-site parking will be managed by TO2015. It is assumed that where venue spectator parking is available, a proportion of parking spaces will be reserved for accessible parking permit holders.

**Off-site Parking**

There will be parking around most venues, both on-street and in off-site parking lots, and the ability of off-site parking to absorb venue parking demand will vary. It will be important to consider price differentials between on-site parking and off-site parking, and to note that some jurisdictions are more restrictive of on-street parking. Off-site parking needs will also inform the planning of walking connections and the projected demand for other modes, such as transit.

**Satellite Parking**

Satellite parking could support transit use, or spread out parking demand when venue-area parking is limited and transit service cannot meet spectator demands.

Satellite parking facilities should be considered for venues where spillover of Games spectator parking demand into adjacent neighbourhoods is a concern. However, there should also be consideration of traffic impacts in the vicinity of satellite parking as part of planning.

There may also be cases where the route between satellite parking and the venue is well served by existing transit and could be accommodated within capacity. It would be ideal, however, to locate satellite lots within walking distance of a venue to reduce the need for shuttle buses or transit service.
2.8.3 Needs and Issues

Calculating Target Auto Parking Demand

All scenarios require an estimate of parking demand at each venue. The first principles approach to estimating parking requirements is based on key variables that affect parking occupancy. This approach is useful for exploring how the mode share assumptions established in Section 2.1.3 relate to parking needs and vice versa. The method of calculating venue parking requirements is shown below.

**EQUATION:** Venue Parking Demand = (Net Venue Capacity times Target Auto Mode Share) divided by Assumed Auto Occupancy (2.75 persons per vehicle)

The results for each venue are shown in Exhibit 41, with parking demand ranging from 70 to 4,400 spaces.

Calculating Bicycle Parking Demand

The method of calculating bicycle parking requirements is shown below under the assumption that 10% of active trips will be bike trips for most venues (see Section 2.7.3). For cycling venues with limited walking access (Hardwood Mountain Bike Park and Cisco Milton Pan Am/Parapan Am Velodrome) the assumption is that 90% of active trips will be bike trips.

**EQUATION:** Bicycle Parking Requirements = Net Venue Capacity times Target Active Mode Share times 10%

Calculating Accessible Parking Requirements

Exhibit 41 also includes initial estimates for accessible parking needs. Accessible parking requirements were calculated in two ways. The first was using an assumption and estimating that accessible parking requirements are equal to 1% of the auto demand (calculation shown below). This number was compared to AODA accessible parking regulatory standards and the greater of the two numbers was chosen. The resulting figures represent a starting point and are based solely on spectator demand, and should not be interpreted as a “one-size-fits-all” requirement. Detailed planning will take into account factors such as the venue’s urban/suburban/rural context, and the availability of accessible alternatives to driving. Section 2.6 discusses accessible transportation in more detail.

**EQUATION:** Accessible Parking Requirements = Net Venue Capacity times Target Auto Mode Share times 1%
## Exhibit 41: Target Spectator Parking Requirements by Venue

<table>
<thead>
<tr>
<th>Zone</th>
<th>Venue/Cluster</th>
<th>Net Venue Capacity</th>
<th>Auto Mode Share Target</th>
<th>Target Auto Parking Supply</th>
<th>Accessible Parking Spaces Required*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown</td>
<td>CIBC Toronto Pan Am Park</td>
<td>34,400</td>
<td>30%</td>
<td>N/A</td>
<td>105</td>
</tr>
<tr>
<td>Downtown</td>
<td>Nathan Phillips Square - Parapan Am Closing Ceremony</td>
<td>1,600</td>
<td>20%</td>
<td>N/A</td>
<td>5</td>
</tr>
<tr>
<td>Downtown</td>
<td>Pan Am Ceremonies Venue</td>
<td>36,000</td>
<td>20%</td>
<td>N/A</td>
<td>70</td>
</tr>
<tr>
<td>Downtown</td>
<td>Pan Am/Parapan Am Fields</td>
<td>1,600</td>
<td>20%</td>
<td>N/A</td>
<td>5</td>
</tr>
<tr>
<td>Downtown</td>
<td>Royal Canadian Yacht Club</td>
<td>TBD</td>
<td>20%</td>
<td>N/A</td>
<td>TBD</td>
</tr>
<tr>
<td>Downtown</td>
<td>Ryerson Athletic Centre</td>
<td>2,400</td>
<td>20%</td>
<td>N/A</td>
<td>5</td>
</tr>
<tr>
<td>Downtown</td>
<td>Varsity Stadium</td>
<td>1,600</td>
<td>20%</td>
<td>N/A</td>
<td>5</td>
</tr>
<tr>
<td>West</td>
<td>Centennial Park Pan Am BMX Centre</td>
<td>1,600</td>
<td>70%</td>
<td>410</td>
<td>10</td>
</tr>
<tr>
<td>West</td>
<td>CIBC Hamilton Pan Am Soccer Stadium</td>
<td>18,000</td>
<td>55%</td>
<td>3,600</td>
<td>100</td>
</tr>
<tr>
<td>West</td>
<td>Royal Canadian Henley Rowing Centre</td>
<td>1,800</td>
<td>85%</td>
<td>560</td>
<td>15</td>
</tr>
<tr>
<td>West</td>
<td>Mississauga Sports Centre</td>
<td>3,320</td>
<td>70%</td>
<td>850</td>
<td>20</td>
</tr>
<tr>
<td>West</td>
<td>Cisco Milton Pan Am/Parapan Am Velodrome</td>
<td>1,600</td>
<td>85%</td>
<td>490</td>
<td>15</td>
</tr>
<tr>
<td>West</td>
<td>Welland Pan Am Flatwater Centre</td>
<td>880</td>
<td>90%</td>
<td>290</td>
<td>10</td>
</tr>
<tr>
<td>North</td>
<td>Pan Am Cross-Country Centre</td>
<td>8,000</td>
<td>100%</td>
<td>2,910</td>
<td>80</td>
</tr>
<tr>
<td>North</td>
<td>Caledon Pan Am Equestrian Park</td>
<td>3,200</td>
<td>100%</td>
<td>1,160</td>
<td>30</td>
</tr>
<tr>
<td>North</td>
<td>Hardwood Mountain Bike Park</td>
<td>4,200</td>
<td>95%</td>
<td>1,450</td>
<td>40</td>
</tr>
<tr>
<td>North</td>
<td>Minden Wild Water Preserve</td>
<td>400</td>
<td>100%</td>
<td>150</td>
<td>5</td>
</tr>
<tr>
<td>Zone</td>
<td>Venue/Cluster</td>
<td>Net Venue Capacity</td>
<td>Auto Mode Share Target</td>
<td>Target Auto Parking Supply</td>
<td>Accessible Parking Spaces Required*</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------------</td>
<td>--------------------</td>
<td>------------------------</td>
<td>-----------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>North</td>
<td>Pan Am Shooting Centre</td>
<td>280</td>
<td>100%</td>
<td>100</td>
<td>5</td>
</tr>
<tr>
<td>North</td>
<td>York University Pan Am/Parapan Am Complex</td>
<td>10,000</td>
<td>45%</td>
<td>1,640</td>
<td>45</td>
</tr>
<tr>
<td>East</td>
<td>Abilities Centre</td>
<td>600</td>
<td>80%</td>
<td>170</td>
<td>5</td>
</tr>
<tr>
<td>East</td>
<td>President's Choice Ajax Pan Am Ball Park</td>
<td>6,400</td>
<td>80%</td>
<td>1,860</td>
<td>50</td>
</tr>
<tr>
<td>East</td>
<td>Angus Glen Golf Club</td>
<td>1,600</td>
<td>95%</td>
<td>550</td>
<td>15</td>
</tr>
<tr>
<td>East</td>
<td>Markham Pan Am/Parapan Am Centre</td>
<td>3,200</td>
<td>60%</td>
<td>700</td>
<td>20</td>
</tr>
<tr>
<td>East</td>
<td>Oshawa Sports Centre</td>
<td>2,400</td>
<td>65%</td>
<td>570</td>
<td>15</td>
</tr>
<tr>
<td>East</td>
<td>Scarborough Pan Am/Parapan Am Complex</td>
<td>6,000</td>
<td>45%</td>
<td>980</td>
<td>25</td>
</tr>
</tbody>
</table>

Exhibit 41 footnotes:
Target Auto Parking Supply rounded to the nearest 10 spaces.
Accessible Parking Requirements rounded to the nearest 5 spaces.
2.8.4 Strategies

Venue-specific Planning

- Each competition venue has different parking needs, and planning will be conducted for each site.

- Parking plans for each site will be approved by Venue Transportation Working Groups (VTWGs) based on what fits best operationally, and integrated into the respective Local Area Plan.

Travel Information and Advice

- Spectators will receive detailed information on travel options, including parking at each venue, through a travel information resource (including a proposed trip planner) that seeks to make the travel experience as simple and predictable as possible.

- Parking-related messaging will vary from site to site, with content to be provided and approved by VTWG members.

- Where pre-booking of parking spaces is required, this will be linked to the spectator travel information resource.

Accessible Parking

- The priority will be to provide accessible parking. Each site must provide accessible parking as close as possible to the venue’s spectator entry. TO2015 has committed to identifying and allocating accessible spectator parking at each site.

- The Design of Public Spaces Standards (Part IV.1 of the Integrated Accessibility Standards Regulation, 191/11) provides regulatory standards for the minimum number and type of accessible spaces.

- Accessible parking will be provided for 1% of the expected spectator auto demand or whatever is required by AODA, whichever is greater. There will be flexibility to review needs for each site. Total requirements based on the competition schedule and venue capacities can be found in Exhibit 41.

- Accessible parking spaces must be pre-booked by spectators via a link on the Spectator Trip Planner.

Bicycle Parking

See Section 2.7.3.
Auto Parking

- Where spectator parking is available as part of the Venue Use Agreement or is within the transportation perimeter of the venue, parking lot management will be conducted and coordinated by TO2015 Parking and Permitting Staff.

- Where spectator parking is available, venue operators are encouraged to charge for parking (recognizing that the availability of nearby free parking could work against this approach).

- Off-site parking spaces for spectators will be managed by the municipality and staffed by the lot owner or lessee.

- The capacity for a venue’s off-site parking to absorb parking demand will be evaluated with the host municipality, taking into account on-street parking restrictions and desirability.

- Transit service to spectator park-and-ride lots will be managed by the municipality in conjunction with local transit providers.

- TO2015 will identify load zones for park-and-ride shuttles as close as possible to the venue’s spectator entry.

- TO2015 will staff and manage all load zones (e.g. Games Family, spectator drop-off and pick-up) within the transportation perimeter.

Satellite Parking

- Satellite parking lots will be located within walking distance of venues where feasible, otherwise, shuttle service will be provided.

- It is desirable to consolidate park-and-ride lots to improve shuttle or transit service efficiency, but this will be balanced against the desire to serve major venue desire lines.

- Transit or shuttle services at park-and-ride lots will operate with frequent service, corresponding to the operation of the venue.

- Where feasible, the VTWG will aim to use existing parking facilities for park and ride, where their normal day-to-day use does not overlap with competition times. Schools, places of worship, and carpool lots with spare capacity will be considered.

- All park and ride lots will be well lit for spectator comfort and security.

Coach Parking

- At venues, an area will be identified where chartered coaches and vehicles can park, to minimize confusion for users and limit the circulation of large vehicles. At minimum, a pick-up and drop-off location for high-occupancy vehicles will be identified through the VTWG and approved by the road owner.
2.9. Wayfinding and Signing

Wayfinding and signing will help us all navigate around the region during the Games, attending competitions and cultural events, exploring communities new to us, and trying unfamiliar transportation modes and routes without worry.

During the Games, travellers will have to adjust when their usual routes are unavailable due to security restrictions or route diversions. Some venues will have different names and access points for the Games. Regular GPS navigation systems, travel planners, maps and guidebooks may not recognize these changes. Spectator trips to more than 30 different competition venues will involve numerous jurisdictions, modes, and operators.

Planning Games wayfinding and signing is an important task that can help build a strong brand and enhance spectators’ experience. A consistent look and feel will help travellers find their way.

2.9.1 Objectives

The wayfinding and signing strategy aims for a coordinated and consistent approach to road signing and pedestrian wayfinding. Games spectators and workforce need to successfully orient themselves and navigate to and from Games venues safely and efficiently on multiple transportation modes and across multiple locations and jurisdictions.

The key objectives of wayfinding and signing are to:

- Provide clear directions in an accessible, uniform manner across all parts of the journey; and,
- Provide detailed route signing for road, transit and pedestrian travel in a collaborative way across all modes and jurisdictions.

2.9.2 Planning Parameters

Audiences and locations. Signs will be provided primarily for spectator and workforce travel by road, transit and walking routes to and from venues.

Venues with no on-site spectator parking will receive road signing only to designated transit hubs or park-and-ride locations.

Games Family transportation will not require specific directional signs on the GRN and training facilities will not require signing outside the venue perimeter.
Regulatory and informational signs will be used where required to support the operation of the Games Route Network and Priority Lanes and the enforcement of Priority Lanes.

**Cycling.** Bicycle routes to venues will not be separately signed; however the location of bicycle parking areas or storage racks will be identified in the vicinity of venues, as appropriate.

**Accessibility.** Where necessary, signing and wayfinding will indicate accessible transportation routes and features (e.g. accessible transit stations, pick-up/drop-off points, and parking areas).

**Design.** To promote a sense of unity across modes and jurisdictions, all Pan Am/Parapan Am Games signing will adhere to a standard look and feel of design, logos and colour palette consistent with the TO2015 Style Guide where applicable.

Signs will adhere to consistent standards for font, character size and spacing, and placement to ensure visibility, legibility, comprehension and safety requirements are met.

All road signing can be achieved with ground mounted signs. No overhead signs will be required. Signs will conform to the Provincial bilingual standards as applicable.

**Materials.** Where practical, in particular for transit and pedestrian use, signing will be temporary, using recyclable or disposable materials; for road signing this may not be possible due to safety considerations, so sign materials shall be reusable where possible.

### 2.9.3 Needs and Issues

Preliminary work has identified the types of signs that will be required for each aspect of the road, transit and pedestrian journey to competition venues, based on the parameters noted above. For each sign type, typical size and location criteria have been developed and preliminary quantity estimates prepared. This work will require further development in the Delivery Planning phase and as the venue transportation details evolve.

### 2.9.4 Strategies

Key steps in a collaborative wayfinding and signing strategy include:

- A detailed Wayfinding and Signing Design Manual will be developed centrally by PATT partners with input from the TO2015 style design guidelines expected later in 2013;

- Detailed route signing plans reflecting venue-specific information will be developed by PATT, the various host municipalities, and agencies responsible for road networks, transit facilities and the urban domain;

- Field surveys will be conducted to confirm sign locations;
- Detailed sign designs will be prepared based on the route signing plans and the Wayfinding and Signing Design Manual;
- Signs and support assemblies will be fabricated;
- Signs will be installed by each operating authority, as only they or their contractors will have unrestricted access to rights-of-way and facilities; and,
- Signs will be maintained throughout Games then removed, and sites will be restored to their original condition.

Because agencies differ in their design, fabrication and installation capabilities, joint or central procurement approaches will be encouraged where beneficial.

**Signing Types and Locations**

Sign types and location guidelines have been developed at a conceptual level for the purpose of understanding the scale and scope of the wayfinding and signing task. There are three groups of signs that will be developed:

Road signs include all signs required on the highway and road network to support spectators getting to venues by vehicles, such as:

- Freeway advance and exit
- At end of off-ramp
- Trailblazing: from ramp to parking location
- Decision point
- Venue
- Transit hub advance and exit
- Transit hub ramp end

**Pedestrian signs** include all wayfinding infrastructure required for spectators on foot, including 'last mile' from transit stations, parking lots, pick-up and drop-off points, as well as cycling and pedestrian arrivals, such as:

- Last mile pedestrian walking trailblazing signs (within 2km of venue from point where pedestrian leaves transit, vehicle or bike)
- Walking route maps
- Venue entry & exit signs
- Decision point walking route signs
• Trailblazing to venue signs
• Taxi / chartered bus pick-up and drop-off
• Accessible route access signs
• Designated parking location signs
• Cycling drop-off signs

Transit signs include all signs required for navigation on and between the various transit systems and modes involved in the Games, including rail, bus and streetcar, such as:

• Bus stop signs for designated bus route
• Streetcar and bus route signs at closest stop to venue
• Last mile signs from parking to entrance/shuttle
• Large overview schematic orientation maps
• GO and TTC platform guidance signs at station entrance
• Platform exit signs
• Subway lobby signs at designated venue stations
• Street level direction signs outside station at designated venue stations
• Return trip to transit outside venue
• Mobility hub signs (route and venue guidance)

2.10. Last Mile and Venue Access

Proper planning and implementation of the “last mile” of trips to and from venues is essential to create a high quality experience for spectators during the Games. It is also important to ensure the smooth operation of the venue and the surrounding area.

The term “last mile” represents the connection between a spectator’s transportation node and the venue entrance itself. The exact nature of this connection will depend on the user, their mode of travel, and the venue’s layout and facilities. The last mile is part of any traveller’s Games experience, and integrates elements of many other sections in this Strategic Framework including designated transit stations, designated parking locations, walking and cycling routes, pick-up and drop-off zones, wayfinding and signing, and spectator information.
2.10.1 Objectives

The objectives of the last mile access strategy are to:

- Provide accessible, safe, easily navigable access between venue entrances and transit stations/stops, parking, and pick-up and drop-off points;
- Minimize impact of venue access on the movement of Games Family and the Games Route Network;
- Integrate and coordinate venue access by different modes;
- Minimize disruption to the circulation of residents and business around venues; and,
- Support security and screening requirements at venue access points.

2.10.2 Planning Parameters

Definition

For the purposes of this Strategic Framework, the last mile is defined as:

- The pedestrian connection between a designated transit stop or station and the spectator venue entrances and exits;
- The pedestrian connection between designated spectator parking and the spectator venue entrances and exits;
- The pedestrian connection between designated spectator bicycle parking and the spectator venue entrances and exits;
- The pedestrian connection between pick-up and drop-off zones and spectator venue entrances and exits; and,
- The key pedestrian routes to the spectator venue entrances and exits.

For clarity, pick-up and drop-off zones at venues could serve (as applicable):

- Accessible conventional transit vehicles, specialized transit vehicles, accessible taxis, and private automobiles carrying persons with disabilities;
- Passengers of private vehicles and taxis;
- Transit vehicles; and,
- Chartered buses and coaches.
Roles and responsibilities

TO2015, MTO, and relevant local agencies and venue owners will work together to identify pick-up and drop-off locations and last mile routes as part of detailed venue transportation planning. Implementation and operation of last-mile strategies and routes at each venue will be the responsibility of the relevant local authorities. However, coordination with TO2015 will be necessary to ensure seamless access at venue entrances and exists.

Last mile planning will be most effective if led by relevant local authorities and venue owners with input from TO2015 and support and coordination from PATT. A Last Mile Coordinator from the municipality will be appointed for each venue, with support and guidance from PATT.

2.10.3 Needs and Issues

Preliminary work has established common last mile needs at all venues, as well as more specific needs at several types of venue.

Needs at all venues

Look and feel standards, wayfinding and signing practices, and other common elements will create a consistent “personality” at venues to maintain the Games experience across the region.

An accessible pick-up and drop-off point for use by transit, private vehicles, and accessible taxis is required adjacent to the spectator entrance.

Where transit service is provided, a transit pick-up and drop-off point is required within accessible walking distance of the spectator entrance and exit. Layover and staging locations for transit vehicles may need to be identified within the vicinity of the venue.

At some venues, there is a high potential for charter bus access due to event popularity, travel distance, or the likelihood of group travel. Charter buses may also be encouraged at venues where transit capacity is constrained or where transit service is not available. Two venues with identified charter bus potential include CIBC Hamilton Pan Am Soccer Stadium and President's Choice Ajax Pan Am Ball Park. Pick-up and drop-off points and layover locations for charter buses will need to be identified at these venues and others identified through detailed venue planning.

Urban venues

Urban venues, primarily those in and around downtown Toronto, will have a greater reliance on access by public transit, walking, and cycling. As a result, last mile access strategies will need to focus on these modes and consider:

- Pedestrian connections from transit stations and stops, pedestrian crossings and measures addressing missing sidewalks and other gaps;
• Higher potential for passenger pick-up and drop-offs by private vehicles or taxi; and

• Higher potential for cycle access.

Planning for last mile access in urban areas will be complicated by a higher number of other uses and the needs of nearby residents and business.

Suburban venues
Suburban venues will have a more even balance between transit access and (where spectator parking is provided) vehicular access. Last mile planning, which is heavily focused on pedestrian linkages, will also be more challenging because many venues are not in pedestrian-oriented areas.

The key needs of suburban venues include:

• Pedestrian connections to transit stops, pedestrian crossings, and measures to address missing sidewalks and other gaps;

• Pedestrian connections from spectator parking, which will be located within walking distance of the spectator entrance wherever possible; and

• Traffic management strategies for spectator parking access to limit impacts on road operations and surrounding neighbourhoods.

Exurban venues
Access to exurban venues will primarily be by auto, so last mile strategies will focus on connecting spectator parking areas to venue entrances and exits. Some venues will require satellite parking with connecting shuttle service.

Key needs include:

• Providing clear connections to spectator parking; and

• Allowing pick-up and drop-offs near venue entrances and exits.
2.10.4 Strategies
Timely definition of last mile roles, responsibilities, costs, and funding sources will be important to planning for last mile access. The Venue Transportation Working Groups (VTWGs) provide a foundation on which these elements can be established with coordination through MTO and PATT.

Last mile access strategies and plans will be fully developed through the operational planning process for each venue. The Last Mile coordinator, on behalf of the municipality, will develop these plans. Known as the Local Area Plans (LAP), each plan will:

- Identify pick-up and drop-off locations;
- Define last mile routes;
- Determine operational needs and responsibilities along last mile routes; and
- Establish local area traffic management needs and mitigating measures.

2.11. Transportation Demand Management

Demand on the region’s transportation system during the Games will exceed normal background levels due to travel by spectators and Games Family. Transportation demand management (TDM) measures can help influence individual travel choices to make them more sustainable by shifting modes, and to use system capacity more efficiently by shifting trip times or routes.

TDM offers a cost-effective alternative to increasing transportation system capacity for automobiles, with the benefit of reducing delay and emissions. Major events like the Games use TDM measures to help move especially large volumes of people through a transportation network in ways that may be unfamiliar to them.

As presented in Section 1.5, Games-time travel demand and the temporary changes in the operation of the transportation network will have impacts on congestion and travel times. Without measures to adjust background travel demand, travel times are predicted to double, or more, on some of the busiest transportation corridors in the region. This would have a detrimental impact on the day-to-day functioning for the region’s residents and businesses.

Consequently, TDM will play a central role during the Games to encourage changes in travel demand for more efficient use of system capacity. A shift of approximately 20% of trips during the peak hour is estimated to be needed in order to mitigate travel time impacts of Games travel demand and transportation measures.
2.11.1 **Objectives**

The goal of the TDM strategy is to help reduce delay and unreliability for trips by Games Family, spectators, and workforce, while helping regional residents and businesses to continue their daily activities. It also seeks to manage the expectations of non-Games travellers and to help the business community (including freight operators) to prepare for and mitigate potential impacts. The strategy recognizes that there will be some unusual capacity constraints within the transportation network during the Games if no change in travel behaviour is achieved. The objectives of the TDM strategy are:

- To promote reasonable and achievable expectations for all travel in the region, whether it is for work, school, personal business, Games participation, deliveries or servicing;
- To manage travel demand at hotspots by encouraging non-Games travellers to avoid trips or to travel at a different time, use a different mode, or take a different route;
- To give Games and non-Games travellers guidance and information on the most appropriate routes available, including non-intuitive ones, to make best use of the available transportation capacity and ultimately achieve a higher transit mode share;
- To work closely with the business community to minimize background traffic demands and support continuity of business requirements;
- To help transportation be a positive part of the Games story, and not the story itself; and,
- To provide a legacy for long-term behavioural change that can be built on in the future.

2.11.2 **Planning Parameters**

The key principles of TDM during the Games include:

- Making best use of existing products, information services/sources and travel programs;
- Promoting transit as the best option for Games spectators and regional residents;
- Delivering information tools, products and communication strategies to support customer travel choices;
- Identifying location-specific TDM initiatives at venues, hotspots or wherever warranted; and,
- Understanding and considering all types of travellers including those with accessibility needs.
The Games Transportation Study

Brenda: Shifting the trip to work

Brenda lives in North York Centre and works at a downtown office near Union Station. A couple months before the Games, she was given information packages from her employer, outlining predicted travel impacts during the Games and suggestions for how to change travel. Wanting to do her part, but still go to work every day, she opted to travel to work earlier in the day, helped along by promises of free coffee at her local subway station and work schedule flexibility given by her supervisor. She goes online to see when and where the transit system is at its busiest and plans accordingly to avoid her station at the busiest times.

Over the course of the Games, Brenda gets accustomed to and begins to appreciate her earlier start time and finds herself to be more productive as the office is quieter. She also takes advantage of earlier lunch breaks – getting an opportunity to get her first pick at the Nathan Phillips Square farmers market and enjoying the festival site entertainment. She decides to change her work schedule permanently.

Brenda usually drives downtown on weekends to visit her sister; however, she has read about the Games impact on the road network, especially during the weekends when the road races take place. She decides to use public transit instead. The trip downtown is much more relaxing because Brenda is able to spend her time reading rather than having to navigate through the road changes.

2.11.3 Needs and Issues

Audiences

The TDM strategy will focus on influencing the behaviour of two key traveller groups. For the first audience, background demand, the priority focus is to free up capacity on the transportation networks and use existing capacity more efficiently. This group includes residents of the GTHA making trips through transportation network hotspots, freight and goods movement, and trips generated by businesses. The second audience, Games spectators, includes GTHA residents and visitors who have purchased Games tickets or plan to attend non-ticketed events. The goal is to help this group plan their travel to and from venues and enjoy the experience of the Games.

Raising awareness and encouraging action

During the run-up to the Games, public information will raise awareness about the Games impacts on the transportation network and how people can obtain further information and advice. Information will be targeted at a range of audiences, but raising
awareness of automobile commuters who travel near venues or use the Games Route Network will be a particular focus as they are likely to be most impacted. People will be encouraged to check whether their trips are likely to be affected, and to consider whether they can avoid their trip or change their travel route, time or mode. The process of raising awareness will start in 2013 (e.g. with two years to go), and as the Games get closer the information made available will become more detailed and direct.

2.11.4 Strategy
The TDM program will promote short-term travel behaviour change during the Games, with a view also to supporting long-term shifts. TDM interventions will include:

- Raising awareness of the transportation impacts of the Games and the travel choices available;
- Providing information on the location of the busiest parts of the transportation network;
- Encouraging people to avoid the GRN and the immediate vicinity of venues at certain times, unless necessary;
- Providing travel advice for spectators, regular users of the transportation network, businesses and freight operators; and,
- Encouraging people to pre-plan their trips.

Importantly, the TDM strategies are designed to work alongside more operational strategies and intelligent transportation system applications to help balance road network demands with the available capacity.

Games Spectator Travel Information and Customer Experience
This work stream will provide travel information and advice to Games spectators including anyone attending a ticketed or non-ticketed Games event (e.g. road events, live sites). Information will be provided under the umbrella of Toronto 2015 and will support the overall customer experience. Specific interventions will include a single digital destination for Games travel information, travel planning and advice for Games venues, trip planning solutions, Games maps, and real-time travel information.

Background Demand Travel Information Campaign
This work stream will deliver information and advice to influence background demand and manage user expectations of transportation conditions. Information will allow users to understand how their travel will be affected during the Games. A marketing campaign to raise awareness of the impact on travellers will be undertaken. Coordination with existing travel information providers will ensure consistency of information and messaging, including in consultation and communications on the Games Route Network.
Travel Information and Advice for Businesses
These activities will work with businesses to raise awareness of the impact of the Games on travel, and to support these businesses with advice and information that they can relay to their staff and associates. Key targets will be the larger trip-generating organizations such as government agencies and large firms. Crucial to this work stream and the background demand campaign will be a close working relationship with the Smart Commute program of Metrolinx.

Goods Movement during the Games
This work stream is focused on managing background freight and goods movement operations demand during the Games. The information required and operations of this sector differ significantly from those of other customer groups. Interventions will include an advisory program tailored to the needs of freight and goods movement organizations of different sizes. It will include support for practices such as out-of-hours deliveries, provide data on road network operations resulting from the Games (e.g. Priority Lanes and roads around venues), and provide solutions for specific organizations.

Local Community Engagement Strategy
A number of business and customer groups will be impacted by local operations at venues, road events and corridors served by the GRN. A campaign to raise awareness and support these groups with information and advice will be delivered.

Customer Research, Tracking and Analysis
This work stream will include a customer research program to determine the best approach for marketing campaigns. It will also build understanding of how successful the TDM campaigns and information sources are, and whether specific behaviour change objectives are likely to be achieved for the Games.

Games Time Operations and Support
To ensure a consistent level of messaging to specific traveller groups during the Games, and to provide real-time travel information to support these users, a Games-time TDM operations function will be created. This function will be based at the Unified Transportation Coordination Centre (UTCC, further described in Section 3.2.2) and will work closely with transportation operators to support their usual functions with specific overlaid Games information and advice.

Messaging and Communication
The TDM work streams will rely heavily on an integrated, well supported, and targeted messaging and communication strategy. This will target specific groups (e.g. Games spectators, freight movers, commuters, businesses) through a number of different channels with well researched and tested messaging and an intensity that increases up to the Games. Effectively targeting communications requires a multi-step process including:
• A definition, contextualization and applicability of the phenomenon to the customer;

• A period of planning and research when options for behaviour change are provided and explored; and,

• A period of activation when the message is reinforced and customer enacts the change.

The method, tone and approach to communication will differ for various customer groups. In addition the tools and channels to successfully reach these groups will differ substantially.

**Games Period Transit Passes**

Visitors and the general public will be able to purchase a Games period pass that grants access to participating public transportation services in the region. The purpose of the period pass is to encourage transit use during the Games.
3. Go!

In 2015, we’ll have the world watching and thousands visiting. The spirit of the Games will be conveyed throughout the region on our highways, buses, and trains. Smooth operations, helpful service and information, and a positive experience will keep that spirit high.

IN THIS SECTION:

• A delivery path to move from Strategic Framework to detailed planning to implementation

• How the transportation system will be coordinated, operated, and monitored during the Games

3.1. Making It Happen

Moving from Games planning to operations will be a major effort. Creating a clear path for this transition will be important for realizing the goals and objectives for Games transportation.

3.1.1 Delivery Path

1. Detailing the Strategic Framework (July 2013 – December 2013)

Detailed work will be conducted to refine the strategies set out in this Strategic Framework. Individual transportation operators will develop Games-time service plans and the PATT Working Groups will develop plans for each work stream (where multiple operators need to collaborate and agree on the plan).

Details within each of the plans will include:

• Concept of operations for each work stream, with further details of what will be delivered during the Games;

• Key project milestones and deliverables to enable tracking of the plan;

• Deliverables including what will be delivered, when and by whom during the project phases leading up to the Games, enabling transparent accountability;

• Key interfaces and dependencies;

• Work stream risks and mitigations; and,

• Refined budget.
Program-wide risks, project interfaces, interdependencies and a clear definition of roles and responsibilities will be overseen by PATT.

2. Operationalizing the Plan/Delivery Planning (November 2013 – April 2015)

This phase will shift from planning to preparing for Games operations and ensuring the delivery of all required systems, resources and processes. This needs to be reinforced with organizational plans and protocols to make sure the operation is delivered as efficiently and effectively as possible, and so that every agency understands its role in the wider context of the Games. This phase is also referred to the Transportation Delivery Planning phase.

A comprehensive operational program, detailing day-to-day requirements during the Games, how they will be delivered and by whom, will be developed by each of the operational partners. It will include:

- Specifications, procurement and installation guidelines;
- Plans and protocols for the Games, including contingency plans;
- Detailed resource and operational plans; and,
- The level to which real-time operations will be assessed and measured.

A key element of operationalization will be integration and coordination to ensure the delivery of specific services and the end-to-end delivery of the overall program. The overarching program will be maintained by PATT in a single, integrated plan with individual projects and agencies accountable for maintaining their own areas. Individual jurisdictions will develop their own detailed plans and consult with councillors, residents, and businesses as required.

The governance and assurance framework will be reviewed regularly to ensure it is still valid with the evolving program.


A full program of testing and rehearsing will be delivered across all transportation modes to ensure that the transportation arrangements are being delivered as planned, and that all elements of the transportation system are sufficiently integrated and capable of delivering an effective and efficient service during the Games.

TO2015 will carry out venue-testing exercises to confirm venue readiness. Some existing venues already have tried-and-tested transportation arrangements that will only require minor adjustments to cater for Games operations. New venues will require transportation plans to be developed and tested. Testing and readiness will be carried out in a staged approach, with each testing exercise falling into one of three categories:
1. Unit-level testing – testing within each functional area (e.g. TDM, UTCC), specific transportation agency or specific venue;

2. Transportation domain-level testing – testing within groups of functional areas or among multiple agencies; or

3. Games-wide testing – testing across all domains and partners (e.g. transportation, security, Games, government, city operations).

To validate that the plan works and to identify any areas that may require further development, the test exercises will take on various forms, such as:

- Modelling work and simulations;
- Desktop exercises and workshops;
- Live transportation operations to support venue-level test events; and,
- Rehearsals and training exercises.

4. Games-time Delivery (June 2015 – August 2015)

Games-time will begin at the start of the Pan Am torch relay and will continue through the departure of the Parapan Am athletes after the Closing Ceremonies of the Parapan Am Games.

A fully integrated operation with excellent communication and cooperation among all delivery partners will be key to delivering successful Games. If all previous phases are carried out with due diligence, this phase will run smoothly and everyone will enjoy playing their part in the delivery. Processes and protocols will be in place for dealing with any unforeseen issues.

5. Decommissioning and Legacy implementation (September 2015 – December 2015)

This phase will formally begin after the end of the Parapan Am Games, although decommissioning will start after completion of events at Pan Am venues that will not be used for Parapan Am events. Legacy implementation will include building on the successes of the Games and documenting the transportation processes and lessons learned for knowledge transfer.
3.2. Games-time Operations

The delivery of transportation services throughout the Games will require a coordinated effort to maintain acceptable levels of service. Many operating centres throughout the GTHA already provide daily operational management and control centres for their respective transit services, road networks, and emergency services. Though these control rooms and operations centres may vary in their capabilities, a coordinated effort among them is required to ensure smooth delivery of the Games.

An additional Pan Am/Parapan Am operations layer will be added during the Games – the TO2015 Main Operations Centre (MOC) and the TO2015 Transportation Operations Centre (TROC), be established in downtown Toronto, and the Integrated Security Unit (ISU) Unified Command Centre (UCC), to be established in Brampton, among others. Due to the large number of different operational entities, clear responsibilities and interfaces are required to ensure that the transportation needs of the Games Family, spectators, and background demand are met.

The potential for disruption to the transportation network can range from serious region-wide emergencies (e.g. power outages, severe weather, security threats) to smaller local incidents (e.g. a vehicle breakdown blocking a key lane of traffic, a collision at a major intersection, or equipment failure on GO rail or TTC subway services). Each can significantly affect the operation of transportation services in its own way. These issues need to be identified and resolved quickly in order to minimize the risk to the Games. Some areas of concern have been identified as requiring particular attention, such as the removal of disabled heavy vehicles.

Similarly, circumstances may change within the Games domain and the transportation agencies may be required to support the changing requirements in real-time, such as an event running late.

3.2.1 Operating Principles, Roles and Responsibilities

The basic premise for Games-time operation is that, where possible, existing transportation agencies continue to provide road, transit, and pedestrian facilities and services to support the timely movement of Games-related and business-as-usual traffic. TO2015 will provide the Games Family with dedicated transportation services, which will operate over the GRN. Where necessary, the operational agencies will provide supplementary routes and services, and related operational enhancements to help achieve transportation reliability objectives.

The real-time operation of the transportation network and services during the Games will involve many jurisdictions and agencies operating in a multimodal travel environment.

The following principles will guide the development of Games-time operation:
Utilize the existing operational Governance arrangements

- Responsibility for each road network and transit service will remain with the incumbent transportation agency, to be actively managed from its home control facilities;

- Routine non-Games related police actions such as traffic collision response and criminal investigations will remain the responsibility of the local police service of jurisdiction; and,

- The response to any major emergency will remain the responsibility of the appropriate municipal emergency services and Ontario Government order-in-council ministries, coordinated through Emergency Management Ontario (EMO) utilizing established procedures, calling up additional partners as necessary.

Provide an effective and complementary Games-time overlay

- In order to move each client group seamlessly through the network, and ensure a positive travel experience, a coordination layer will be established to facilitate the collaborative operational working environment required. The Unified Transportation Coordination Centre (UTCC) will house representatives from each agency. The Province (MTO) has the overall responsibility for the development of the UTCC, drawing on the expertise of PATT members.

- The Province (MTO) owns the overall spectator experience, coordinating extensively with road and transit agencies. To this end, the Province maintains the overall coordination of the ‘Last Mile’ route, with municipalities carrying out the delivery and Games-time operation of Last Mile activities.

- Urban domain volunteers (provincial, municipal, transit agencies) are distinct but work alongside in geographic responsibilities from Toronto 2015 volunteers (within the venue perimeter) and transportation agency staff (within transit boundaries).

- The operation of the Games Family transportation services will be the responsibility of TO2015, operating out of the Transportation Operations Centre (TROC).

- The responsibility for any Games-related security or policing issues and on-site incident response will be managed by the appropriate police service and private security operating under police oversight, coordinated through the Integrated Security Unit (ISU), which has been set up as a partnership between the OPP and seven regional police services for this purpose.

- Monitoring of key performance measures will be required, such as actual versus forecast traffic volumes, travel times, emergency response times, effectiveness of traffic management and TDM strategies. Doing so will support future planning for major events in the region.
The province (MTO) will take a proactive (rather than reactive) approach to public relations and communications.

### 3.2.2 Operational Planning

Operational planning for the Games will occur at several levels, including all operational partners in cooperation with PATT to ensure that all aspects of transportation operations have been thoroughly reviewed and appropriate actions put in place to support the Games. MTO, on behalf of PATT, has convened a series of working groups to facilitate the operational planning process, to ensure consistent application of principles and to provide guidelines and support to the operational partners.

### Partner Agencies

At the most basic level, each operating agency will take stock of their current operations and maintenance activities to ensure that their regular activities can still take place during the Games. They will need to manage their networks and services that serve their regular customers and ensure that in so doing, there are no unintended consequences that might adversely affect Games-time operations.

Issues that might fall under this review include: minimizing reductions in staff due to vacation schedules; advancing or deferring planned maintenance on roads or transit routes that will affect Games traffic; modifying planned construction project schedules; and, issuing of road occupancy permits to avoid the Games period.

Each host municipality and operational agency will undertake to provide operational enhancements in support of their Games transportation obligations. There is a long list of potential actions that could be considered for implementation, and it is expected that each spectator route, transit service and GRN link will be reviewed to determine the most necessary and cost effective enhancements.

As a means of ensuring the consistency and quality of enhancements to be implemented across jurisdictional boundaries and across multi-modal trips, PATT will seek regular consultation with operational agencies to discuss progress, share ideas and facilitate joint actions where appropriate.

### UTCC Operations Planning

The working relationship between the various operating partners will be developed in greater detail to minimize the risk of gaps and overlaps, and provide clarity for Games-time operational roles and responsibilities.

PATT will prepare an Operations Plan for the UTCC in cooperation with representatives from the transportation operating agencies and the other Games domains that will participate in the UTCC. This Operations Plan will address issues such as:

- institutional arrangements and governance structure;
• staffing plans for full and part-time participating agencies and management staff;
• communications and information flows between operating agencies and UTCC staff;
• operational processes between UTCC and ISU, EMO, TROC and other Domain representatives;
• Operational processes between UTCC, TDM, spectator travel planning and real-time travel information providers;
• systems and technology requirements;
• recording and reporting procedures;
• response escalation procedures;
• travel/traffic communications to public; and,
• business continuity and contingency plans.

Games Readiness and Testing
Readiness provides confidence that the transportation arrangements are being delivered as planned and that all elements of the transportation system are sufficiently integrated and capable of delivering effective and efficient service during the Games.

An important factor in successful operations lies in extensive tests and trials of both systems and procedures, using a series of desktop exercises and live trial events to identify gaps and shortcomings in the operational arrangements for the Games.

A program of increasingly complex operational trials will be carried out, starting with one or two transportation agencies discussing hypothetical situations, leading to larger mock events, gradually building up to employing the UTCC in full trial events, such as an international tennis championship at York University and the Henley Regatta.

3.2.3 Operational Enhancements
In the lead up to the Games, a series of enhancements to existing transportation operations will be activated to improve the high quality, reliable transportation service provided to the Games Family, spectators, and workforce.

The incumbent road and transit authorities will take responsibility for planning, designing, and implementing the various enhancements required and operating them during the Games. Operational plans will be developed under the direction of PATT to ensure a consistent and reliable implementation. An overview of the enhancements anticipated to be incorporated into the operational plans is below:
Games Route Network (GRN): Some portions of the GRN may require intervention measures in critical locations to facilitate the movement of the Games Family. Intervention measures to be considered as part of the operational planning process and development of the GRN may include:

- Minor geometric improvements, such as improved turn radii for bus movement, left and right turn slots, and bus bays;
- Road construction/maintenance and road occupancy embargoes, to ensure key road links are not under construction during the Games;
- Traffic signal plan updates, to reduce delays on the GRN;
- Parking, stopping and turning restrictions; and,
- Alternative route plans.

As part of the GRN design and implementation process, a further analysis of the critical locations and the impact of different intervention measures will be carried out. The responsible road authorities are key to ensuring the smooth implementation and operation of the proposed measures.

Priority Lanes: As discussed in Section 2.4, it will be necessary to incorporate temporary Priority Lanes in high congestion areas to improve travel time reliability for Games Family, transit, and HOV general users. Implementation may require regulatory approvals and appropriate regulatory and advisory signing to notify traffic of the conditions under which the lanes may or may not be used. Each provincial, regional or local road authority will take responsibility for the implementation and operation of the segments of Priority Lanes that fall under its respective jurisdiction.

Supplementary Transit Services: As detailed in Section 2.5, the Games Transit Network will include temporary Games-time routes and service to venues that are not currently well served by regular scheduled transit services to transport spectators to and from the events. These temporary services may take the form of extended hours, additional frequency on existing routes, new routes connecting the venue to designated Games Mobility Hubs, or park-and-ride sites. In all cases, it is expected that these temporary services will be provided and operated by local transit authorities or GO Transit, not by a special-purpose operating authority. Where venues are located in areas without existing GO Transit or local transit services and transit service is identified as a need, contracted service by private operators may be used if service agreements cannot be made with an existing transit agency.

Enhanced Network Monitoring: As part of the operation of the road and transit network during the Games, each operating agency may be required to monitor the network, respond to the traffic implications of incidents, and provide updated information. This could entail deploying additional targeted field monitoring equipment (e.g. CCTV) and/or additional staff to cover extended periods of operation during late night, early morning, and weekend to meet the Games competition schedule. New operational protocols and
contingency plans may need to be developed to support the GRN and spectator transportation. Operational plans will be required to detail these arrangements and to demonstrate how the local operating agency will coordinate with adjacent agencies, the UTCC, the ISU and EMO.

**Enhanced Incident Response:** One of the enhancements desired is an enhanced on-site incident response capability on the Games Route Network and key spectator routes. These enhancements may vary from agency to agency and will need to be developed in close coordination with the ISU and local police services. Enhancements to be considered could include:

- Contracted heavy-vehicle recovery service (e.g. MTO Quick Clearance initiative for freeways);
- Rapid vehicle removal procedures to reduce the time to respond to incidents and clear the disruption;
- Reduced arrival times to traffic incidents for police and other emergency responders (e.g. MTO AMC response is currently 30 minutes; consider implications of reducing to 15 minutes); and,
- Use of portable variable message signs as response management tools on key routes.

**3.2.4 Monitoring and Coordination**

Successful Games-time transportation management will require an understanding of local operational responsibilities and clear communication regarding issues affecting multiple modes and jurisdictions. A Unified Transportation Coordination Centre (UTCC) will be provided for this purpose, to be housed in the Ministry of Transportation’s new Central Region Traffic Operations Centre being built in Toronto. The following operating principles will guide the development of the UTCC:

- The UTCC will provide a central facility for all agency participants to share transportation network status, service status, and event information as well as to collaborate on joint responses to Games-related incidents;
- The provision of real-time Games travel information will be coordinated through the Games Transportation Demand Management (TDM) function, housed at the UTCC, utilizing data compiled at the UTCC from the operating agencies;
- The UTCC will be a single central source of accurate information about the real-time performance of the Games-related transportation network and services; and,
- The UTCC will not take over any operational responsibility from operating authorities; it will not take over any security responsibilities; and, it will not communicate directly with any Games Family vehicles.