Olympic Bid Process: An Engine for Transportation Development
About Us

The project team is composed of eight graduate students from Carnegie Mellon University’s Heinz College MSPPM-Washington D.C. Program. A distinctive aspect of the program is the Systems Synthesis Project in which students engage in a final capstone policy project. The purpose of this project is to synthesize and apply academic training to current policy issues in real time. The project team brings a diverse array of professional experience across sectors and policy topics. The team is supported by Faculty Advisor Andrew Richman, as well as an Advisory Committee composed of academic and industry experts. Please contact the team with any comments or questions: cmu.bid@gmail.com.
# Table of Contents

Introduction ................................................................. 5
Scope and Methodology .................................................... 6
Istanbul: City Context ...................................................... 8
Istanbul: Bid History ....................................................... 9
Manchester: City Context ............................................... 10
Manchester: Bid History ............................................... 11
Bid Document – Transportation Plan Analysis .................. 11
   Process of Analysis .................................................... 12
   Uncertainties ......................................................... 12
Istanbul
   Olympic Bid Document Analysis ............................... 13
   Municipal Transportation Plans ............................... 15
Manchester
   Olympic Bid Document Analysis ............................... 16
   Municipal Transportation Plans ............................... 18
Comparison ............................................................... 19
Answering the Question ............................................... 20
   Theory of Change ................................................... 20
Application ............................................................... 24
   Roadmap to Istanbul 2020 ....................................... 24
Further Research Inquiry ............................................... 25
Appendix 1: Systematic Literature Review ..................... 27
Appendix 2: Consultation List ......................................... 37
Appendix 3.1: Istanbul Bid Transportation - Projects Index .. 38
Appendix 3.2: Istanbul Transportation Plans - Projects Index .. 40
Appendix 3.3: Manchester Bid Transportation - Projects Index .. 41
Appendix 3.4: Manchester Transportation Plans - Projects Index .. 42
Works Cited ................................................................. 43
Introduction

In 2008, 4.7 billion people tuned in to watch the Summer Olympic Games in Beijing. As the single largest mega-event in the world, the Olympics has the power to captivate the global imagination as individual victories translate into national triumphs. When Usain Bolt crossed the finish line, he brought home more than a gold medal, he brought Jamaica an unparalleled sense of national pride. And yet, long before he left the starting blocks, another multibillion-dollar competition took place to decide a winner. The bid process to host the Olympics is as rigorous and high-stakes as any Olympic sporting event, but has never drawn the same global attention. As existing literature has shown, and what this report will reveal, the real winners of the Olympics are produced during the bid process and may never actually host the Games.

"The most important thing is not to win but to take part, just as the most important thing in life is not the triumph but the struggle. The essential thing is not to have conquered, but to have fought well."

-Pierre De Coubertin, Founder of the modern Olympic Games

Signaling to the world that a city is economically, politically, and culturally poised to compete in the global marketplace is inherent in participating in the bid process. This gesture creates an opportunity for winning cities to broadcast their readiness and establish an Olympic legacy. Nevertheless, hosting the Games is not a prerequisite for enduring impacts. Every city that participates in the Olympic bid process has the potential to accelerate long-term, sustainable development through a strategic and robust planning process. However, unpreparedness to meet International Olympic Committee (IOC) bid requirements and the pressure to win may cause cities to subordinate local needs for global recognition. Transportation infrastructure development is the linchpin between a strong proposal to the IOC and tangible benefits for local residents beyond the Games.

Transportation projects, such as a new airport terminal or expanded subway line, are some of the most concrete and long lasting benefits that a mega-event can leave for residents of the host city. Effective city planners can use the bid process to build political will and secure financing for achieving these benefits and accelerating transportation plans. Unfortunately, this opportunity is often missed, as is illustrated by the lack of emphasis on transportation in official Olympic bid documents. Olympic bid books can be hundreds of pages in length, with less than 10 pages dedicated to transportation planning.
Conversely, there is no lack of literature on mega-event legacies. There is a growing body of knowledge on the transformative power of mega-events though the conclusions are varied. Many academics question if the benefits of hosting a mega-event outweigh the costs of its execution.\textsuperscript{21,22} Furthermore, measuring impacts within specific sectors, such as transportation,\textsuperscript{23} or employment and wages,\textsuperscript{24} reveals that neither costs nor benefits are evenly distributed across a city’s economy.\textsuperscript{25} This trend holds true for participating in the bid process as well. Research into the broader economic impacts of bidding is inconclusive,\textsuperscript{26,27,28} and yet case studies have shown benefits within individual cities. For example, New York and Barcelona experienced positive transportation development despite different bid outcomes (see chart at right). These benefits are particularly relevant to transportation infrastructure as they motivate a city to bid multiple times with the goal to advance a long-term development agenda.\textsuperscript{29,30,31}

This report seeks to explore the intersection between transportation development, the Olympic bid process, and the resulting legacies. Specifically, this report seeks to answer the question:

**How can participating in the Olympic bid process accelerate transportation development regardless of the bid result?**

The inclusion of bid losers in the discussion of Olympic legacy, and a focus on the phenomenon of multiple Olympic bids as a driver for transportation development, distinguishes this research from other studies. The following sections will discuss the framework for the project team’s original research and its implications for global transportation development.

## Scope and Methodology

Synthesizing the full body of literature and practice around legacies, urban planning, mega-events, and transportation development was essential to arriving at the primary project question. Two main activities facilitated this research process. The first was a systematic review of the literature,\textsuperscript{32} which was supplemented by consultations with industry and academic experts.\textsuperscript{33} This combination provided a realistic and informed view of the field of study and where the team could contribute to the dialogue.

The systematic review process used targeted search terms to extract 1,484 peer-reviewed articles from four academic databases. Through a systematic screening and scoring process, trends and gaps were identified within the existing body of knowledge (see
Systematic Review Analytics chart below). As a result of the review, it was clear that the Summer Olympics are the most significant mega sporting event. Additionally, the overwhelming focus on host cities exposed a gap in research on bid losers, which the project team identified as a novel contribution.

Expert interviews not only substantiated this finding, but also steered the team’s focus toward cities that submitted multiple Olympic bids in the last 20 years. Seven cities fit the criteria of repeat Olympic bidders over the past two decades.

In order to identify how the bid may have catalyzed transportation development, it was necessary to compare transportation activities in Olympic bids and each city’s transportation plans. The following resources were drawn on for analysis:

- Official Olympic bid documents: transportation sections;
- Municipal transportation plans: primary and secondary sources; and
- Various government, media, and academic sources (to verify the current status of transportation projects).

Examined Timeline

<table>
<thead>
<tr>
<th>Year Bid Submitted</th>
<th>Year of Games</th>
<th>Years of Transportation Plans Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>1996</td>
<td>n/a*</td>
</tr>
<tr>
<td>1997</td>
<td>2004</td>
<td>1990-2011</td>
</tr>
<tr>
<td>2001</td>
<td>2008</td>
<td>n/a*</td>
</tr>
</tbody>
</table>

*transportation plans for these years are not considered because no corresponding bid was submitted.

This original data was compiled to form the foundation of a comparative analysis between projects in bid documents and transportation plans for each city. These findings provided compelling evidence of a link between the bid process and transportation development. The project team explored this link by creating an original theory of change model that ultimately informed recommendations for decision makers, found later in this report. The significance of this link is best informed by a thorough understanding of the city context over the span of each city’s bidding history.
Istanbul is a city on the move. Positioned at the junction of Europe and Asia, it has served as a geostrategic advantage for four empires fostering a rich culture and diverse populace. Since the 1950’s, Istanbul has experienced rapid urbanization and population growth due in large part by migrants from Asia and the Middle East. Istanbul is Turkey’s largest city with over 13 million residents and growth projections of 8.3 percent by 2020. This trend reflects a population bulge in those under the age of 25, who make up nearly half of Turkey’s population.

Istanbul’s population growth has had many impacts, but none more so than on transportation infrastructure. The metropolis is broken into 39 districts (see map) administered by the Istanbul Metropolitan Municipality (MMI). This sprawling layout further complicates traffic congestion as the number of privately owned cars soars overshadowing daily commuting and commerce.

Residential areas within the city are primarily confined to the coastal areas along the Marmara Sea and Bosphorus with business districts near the axis of Sisli, Zincirkuyu, and Maslak. Rapid growth has also led to the formation of several urban sub-centers on the European and Anatolian sides of the country.

While one of Istanbul’s main challenges is transportation, the Turkish government as a whole faces a range of economic and political issues. These challenges include high unemployment among the growing youth demographic, reliance on external investment, and the need to balance economic sustainability and population growth. Further, Turkey has been criticized for its sensitive domestic power
struggles, particularly those between the ruling AKP (Justice and Development Party) party and Islamist
groups. Turkey’s government also faces external and
internal pressure to relax its media censorship policies
and reform treatment of the country’s Kurdish
minority.

Nevertheless, Turkey is poised to compete globally.
Istanbul’s economic growth, resilience during the
recent global recession, and broad set of trading
partners define the city as an emerging financial
center. Formerly a state-directed economy, Turkey
implemented a number of reforms over the past two
decades transitioning from a middle-income country
reliant on agriculture and heavy industry to a
diversified economy focused on global services and
commerce. Since 2000, Turkey has sustained one of
the largest economic growth rates in the world at
approximately six percent. Istanbul is a key driver of
this growth constituting one-third of Turkey’s GDP
and raising 40 percent of the republic’s tax revenues.

This steady growth prompted Turkey to pursue
entrance into the European Union (EU) during the
early 2000s, though unsuccessfully. Nonetheless,
Turkey’s dynamic growth, emerging markets, and
positive international alliances are recognized as a
source of stability in the Middle East. Europe’s recent
credit crisis, combined with leadership changes from
the Arab Spring, has altered Turkey’s national
priorities. Consequently, membership in the EU is no
longer a political priority. This shift opens a window
of opportunity for Turkey to concentrate its
sociopolitical energies on other endeavors, including
its pursuit of hosting the 2020 Summer Olympic
Games.

Istanbul: Bid History

Istanbul’s record of four “failed” Olympic bids adds an
intriguing narrative to Turkey’s historical development.
Turkey’s interest in global mega-events dates back as
far as the mid-1850’s when the country made attempts
to host one of the World’s Fairs. From the 1920’s to
1950’s, sports and sporting events gained prominence
under President Kemal Ataturk’s leadership and the
progressive reformist movement.

Istanbul embarked on comprehensive urban
development during this same time frame under the
leadership of master planner, Henri Prost. Prost
introduced the concept that the Olympic Games may
serve as an impetus to complete transportation
infrastructure projects and enhance the city’s image.
The same motivations still fuel Istanbul’s desire to host
the Olympics.

Since Prost’s era, Istanbul has had varying degrees of
interest in bidding for the Games. However, political
will to host the Olympics returned in the late 1980’s. In
1988, the Greater Municipality of Istanbul prepared an
action program and infrastructure plan to organize the
Olympics. Although a considerable political shift took
place in 1989, the Municipality was able to complete a
bid for the 2000 Olympics.

Istanbul’s bid for the 2000 Games also marked the
enactment of a Turkish Olympic Law. The law states
that Istanbul must bid for the Olympic Games until it
succeeds, underscoring its commitment to achieving
global prominence. Additionally, it designates the
National Olympic Committee, central government, and
greater municipality as the principle parties of the bid
process. The law fully funds and empowers the
Istanbul Olympic Bidding Committee (IOBC) to lead all
procedures related to the Olympic strategy, but deems
the IOC as the ultimate authority of the process.

“We have sufficient revenues and total
support from the government. Turkey has
already spent more than $200 million over
the past 11 years for the Games.”
- Yalcin Aksoy
Current Director, Turkish NOC

Source: Istanbul Unveils 2020 Summer Olympic Bid

Since the Olympic law was established, Istanbul’s
efforts to host the Olympics parallel the city’s rise as a
global city. Istanbul is a prime example of a repeat
bidder, having submitted applications to host the Games in 2000, 2004, 2008, and 2012.54 The city is currently considered a frontrunner for the 2020 Games. The Turkish National Olympic Committee (NOC) has garnered support and financial backing from the republic’s political and corporate leadership with each successive bid.

Despite Istanbul’s failed bids, the city has hosted other important events, notably the 2010 FIBA World Championship.55 The city was also deemed the 2010 European Capital of Culture and 2012 European Capital of Sport. The current bid aims to capitalize on these achievements, unify Turkey’s growing youth population, and leverage the city’s growing transportation capacity to host large-scale events.

**Manchester: City Context**

Manchester faced significant economic challenges in the 20th century as it transitioned from an industrial city to a service-based economy. Through strategic revitalization efforts, Manchester has successfully re-emerged as an economic hub for the U.K. Not only was Manchester ranked as the second-best place to do business in the U.K. in 2010, but it is also the fastest growing economy in Great Britain.58 Additionally, Manchester houses the second largest group of consuls in the U.K., representing the city’s significant international, diplomatic, and political presence.59 To this day, Manchester is still considered one of the most modern cities of the United Kingdom.

While Manchester prides itself as a cultural center for performing arts, music, and literature, the heartbeat of the city resides in its passion and commitment to sports. Manchester United is one of the most world-renowned soccer clubs, and is at the center of the city’s sports scene. The pinnacle of Manchester’s sporting narrative was hosting the 2002 Commonwealth Games, which spurred the construction of the first-class City of Manchester Stadium, among other sports complexes and transportation initiatives. These venues were part of a larger city plan to redeem impoverished areas by connecting them to a growing transportation network.

Over the past two decades, Manchester’s most essential transportation initiative was the establishment of Metrolink – Great Britain’s first light rail system. Rolled out in 1992, Metrolink continues expansion with projections to become the U.K.’s largest light rail system.60 Manchester is well served by regional rail systems,61 as well as a vast bus network made up of over 50 bus providers.62 Combined, these systems are the foundation for Manchester’s overarching urban development vision.
Manchester: Bid History

Manchester’s Summer Olympics bid history united the city’s fanaticism for sports with its priorities to revitalize communities and bolster physical infrastructure. As a candidate for the 1996 and 2000 Games, Manchester took a strategic approach to the bid process. The municipal government understood the cost and uncertainty of bidding, and thus approached the bid “as a means to an end.” For Manchester, this strategy meant fast-tracking substantial urban regeneration initiatives, particularly in underdeveloped and low-income areas.

Manchester’s bid history is colored by more than its failed Olympic bids. The city’s successful campaign for the 2002 Commonwealth Games was dramatically impacted by their previous participation in the rigorous Olympic bid process. Although the effects of Manchester’s successive bids cannot be directly tied to London winning the 2012 Games, the transportation developments Manchester initiated as a result of those bids did influence the region’s interconnectivity. Remarks by the chief executive of the Manchester City Council summarize the direct relation between the two cities: “Manchester’s work during the failed bid processes may have paved the way for London’s win.”

Manchester utilized pre-existing transportation plans as part of its event-led development strategy. When Manchester bid for the 2002 Commonwealth Games, the city had increased its efficiency, developed bid best practices, and organized internal support that accelerated the completion of many proposed transportation and venue projects. Most critically, public funding appropriated for construction projects may not have been obligated otherwise. The city’s long-term capital investment for a metro transport system was well incorporated in the bid’s proposal for a connector between the city and the Olympic Center. In this manner, the bids were leveraged as “mechanisms” for regeneration.

---

Bid Document - Transport Plan Comparison

Introduction

A complex timeline for transportation development underpins each city’s respective context and bid history. In the seven to ten years before an Olympic Games, cities actively build political support and goodwill for projects prioritized for the bid book. This creates a window of opportunity for planning committees and officials to incorporate city and country development initiatives into the bid. The degree to which national and municipal governments partake in the planning of bids varies, and therefore so does the degree to which existing transportation plans are reflected in bid documents. The overlap of these two documents provides a benchmark transportation development, and warrant examination to discern whether the bid process does indeed accelerate infrastructure development.

“Manchester considered the achievement of the objectives as more important than the events that were used as the vehicles to achieve them. So long as the objectives could be delivered, it actually did not matter whether it was an Olympics or a Commonwealth Games that delivered them.”

- Guy Masterman
  Mega Sporting Event Expert

Source: Losing Bids, Winning Legacies

---
**Process of Analysis**

In order to gauge how the bid process may impact transportation development, original Olympic bid documents were compared to the municipal transportation plans from each respective city. The following section represents analyses of these two resources over the same periods of time (See pg. 6 “Examined Timeline”) and the findings extracted from their comparison. To systematically identify the full range of transportation projects listed in both sets of documents, a timeline and comprehensive index of transportation initiatives were created.\(^68\) Appendices 3.1-3.4 catalog the projects upon which this analysis is based, including the year that they were proposed, projected to be completed, and finally implemented. External media, government, and academic sources were used to verify project completion status unless explicitly stated in the bid documents. The resulting data is the basis for the insights and analysis of the below sections.

**Validity**
The documents used to create Appendices 3.1-3.4 came from several sources. The bid information comes directly from the transportation sections of original bid documents. As primary sources, the validity and comprehensiveness of extracted data have been verified using academic, media and other government sources, and describes the full portfolio of transportation projects prioritized for the Games. Conversely, the transportation plan data required secondary sources. Many of the original master transportation plan documents were unavailable for public review. As a result, transportation projects included in Appendices 3.2 and 3.4 may not represent the full portfolios of Istanbul’s and Manchester’s official transportation plan documents. However, the transportation projects included in the analysis from other government documents and secondary sources do represent each city’s government strategies and implementation.

**Uncertainties**

In both Istanbul and Manchester, it was a challenge to attribute causality between Olympic bids and transportation development projects. The political and socioeconomic dynamics of each city, as well as the international influences at the time of the bids add layers of complexity to the analysis. The main uncertainties of this project cannot go without consideration:

<table>
<thead>
<tr>
<th>Uncertainty</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure projects prompted by other related campaigns</td>
<td>Istanbul sought an increased international presence and authority</td>
</tr>
<tr>
<td></td>
<td>Manchester desired to redeem its status of “most modernized” city</td>
</tr>
<tr>
<td>Infrastructure projects prompted by the influence of other large “bids”</td>
<td>Istanbul attempted E.U. membership</td>
</tr>
<tr>
<td></td>
<td>Manchester hosted the 2002 Commonwealth Games</td>
</tr>
<tr>
<td>Infrastructure projects prompted by a mix of other less identifiable factors</td>
<td>Istanbul was experiencing general economic growth</td>
</tr>
<tr>
<td></td>
<td>Manchester integrated public-private partnerships</td>
</tr>
</tbody>
</table>

**Mode of Transit**

**Vehicle**
The increase in private vehicle ownership in Istanbul has created a traffic congestion problem presenting daily challenges. Existing infrastructure cannot support the influx of people associated with hosting a mega-event, such as the Olympic Games. Across all three bids, vehicle projects revolved around the maintenance or extension of the Trans-European Motorway (TEM) or the E-5 Highway, which addressed the traffic demands. These two roadways serve as critical connectors between the Asian and European continents. Vehicle-related projects in the bid documents include surface roads, bridges, and parking.

Starting in the 2000 bid, Istanbul prioritized the extension of 1,500 km of highway on both the TEM and E-5. Ring roads, which are the main arterials around the city, were built out in both the 2000 and 2008 bids. Additionally, refurbishment projects on sections of the TEM and E-5 were given prominence in the 2004 and 2008 bids. Importantly, the Bosphorus and Golden Horn Bridge projects expanded the access points that provide vital intercontinental movement of people and goods. A significant portion of each bid mentioned both temporary and permanent parking to establish sufficient space for the expected increase of vehicles during the Games. By the 2008 bid, Istanbul proposed to repurpose existing parking structures and build new structures in strategic locations throughout the city for this purpose.

**Airports**
Airports are the first mode of transportation for any city bidding for the Olympic Games to address, as they must be able to handle the inundation of both people and cargo. Accordingly, Istanbul made airport capacity a priority in all three bids. Each bid either introduced the use of a new airport or expansion of existing facilities. The Ataturk Airport was the primary focus throughout each successive bid, but two additional airports were mentioned to alleviate pressure on existing terminals. Runway and gate additions, as well as the construction of international terminals, were proposed to increase annual capacity to more than 30 million passengers per year if completed in full.

**Light rail**
Connecting residential neighborhoods with commercial centers is not only key in planning for the Olympics but also essential to the growth and development of a modern city. In this vein, Istanbul has designed its rail network to meet the needs of visitors and residents alike. At the time of the 2000 bid, only the first 10km of rail were proposed, but by 2008 the bid included nine different rail sections that spanned the entire city. In 2004, plans were included to connect the airport to the rail system, as well as create a critical connection between the largest residential center and the Olympic Park. This forethought could provide benefits long after the Games and establish rail as the primary means of mass transit.

**Sea transport**
Istanbul has historically been defined by its positioning along the Bosphorus, which uniquely separates the city into two sections between the European and Asian continents. However, sea transport was not identified as a priority mode of transit and was only included in the 2004 bid. The Municipality of Greater Istanbul did propose doubling the existing fleet of public sea vehicles in order to increase the number of districts served.

**Bus**
Bus transit was not explicitly introduced into transportation sections of the bid book until the 2008 bid when Istanbul proposed increasing the municipal bus fleet. At the same time, Istanbul proposed reorganizing routes across the city to increase coverage and capacity in order to complement an evolving rail network. Efforts to revitalize bus stations and incorporate them into the rail system further integrated bus transit with the growing mass transit system.
Tramways
Tramways were distinguished from rail transportation when first introduced in the 2008 bid. Similar to light rail, trams are used in Istanbul to curb traffic congestion. The 2008 bid proposed a single tramway project that added a connection between Zeytinburnu-Gungoren-Bagcilar, which supported existing and proposed rail infrastructure.

Traffic monitoring technologies
Traffic monitoring technologies were debuted in 2008 as part of an overall effort to modernize and formalize Istanbul’s budding transportation infrastructure. The Municipality introduced traffic monitoring cameras in the bid document for the first time, and proposed the installation of cameras in major junctions throughout the city to help monitor and regulate traffic flows. Together with signalized junctions (traffic lights), these technologies show that the infrastructure in Istanbul has reached a significant level of sophistication where it needs to be managed as much as it needs further development.

Number of Projects in Bid Documents by Mode

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle*</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>-33%</td>
<td>150%</td>
</tr>
<tr>
<td>Rail</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>--</td>
<td>350%</td>
</tr>
<tr>
<td>Air</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>100%</td>
<td>-50%</td>
</tr>
<tr>
<td>Sea</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>--</td>
<td>-100%</td>
</tr>
<tr>
<td>Bus</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Tramway</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Traffic Monitoring Technologies</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Totals</td>
<td>7</td>
<td>9</td>
<td>22</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Vehicle includes surface roads, bridges, and parking.

Bid Document Trends

Portfolio: The Istanbul bid documents present a varied portfolio of transportation options. While the emphasis is clearly placed on rail transit, planners were conscious to include several modes, which contribute to more dynamic transportation alternatives. Across all three bids, the majority of projects were large in scale establishing major infrastructure developments. For example, the foundation was laid for an entirely new subway system that was completed concurrent to the 2000 bid process. The focus on rail defined Istanbul’s transportation growth and vision over the next decade. However, by the 2008 bid, planners realized the importance of a more varied transportation portfolio and integrated smaller-scale supporting infrastructure projects. For example, traffic monitoring technologies and an increase in bus fleets did not replace other mass transit priorities, but instead bolstered the effectiveness of the Municipality’s significant transportation investments.

Progression: Over the course of the three bids, the time horizons for projects generally become more targeted with shorter projected completion dates. During the 2000 bid process project time lines are more notional, but by 2008 time horizons are significantly clearer. The length of projects seem to be more reasonably managed, such that 64 percent have a proposed completion date three years in advance of the Games. This trend does not suggest that each of these projects was in fact completed, but that the planning committee gave more attention to and prioritized project management. The bid does not always include project timeframes, but is more often used to introduce transportation development initiatives. Since the projects are not explicitly defined, it is challenging to show rates of completion. Only through secondary sources can project status be verified, but it is clear that progressively more transportation development is undertaken with each bid. Additionally, successive bids reveal a progression towards larger transportation initiatives as part of a broader development vision. The 2004 bid document illustrates this point with its use of the language “...this work will be carried out as planned, whether or not Istanbul is chosen to host the Games...” This statement implies that Istanbul sees how many projects are integral to a more comprehensive development plan.

Precision: The way in which modes of transportation, and their associated projects are described in the bid documents shows a movement towards greater specificity in later bids. In 2000, modes such as sea, air, and vehicle are conceptually included, but lack supporting data and present an underdeveloped vision for overall transportation planning. This deficiency is illustrated by inclusion of only a single chart noting
distances between venues. However by 2008, transportation projects are more acutely described and enumerated as an overall transportation strategy rather than disparate parts. Specifically, planners separated out existing infrastructure projects and those still in the planning stages for each mode of transport. Furthermore, for the first time, corresponding timelines accompanied more than half of projects in the bid documents. On a micro level, this precision suggests more concentrated planning efforts, and on a macro level it points to both investment in and commitment to transportation development.

**Municipal Transportation Plans: 1990-2011**

### Mode of Transit

**Vehicle**
Traffic congestion has been recognized as a critical concern as the number of cars on the road grows. Vehicle-related projects are an important and growing mode of transportation for the city of Istanbul.\(^6\) Despite the importance of building infrastructure to manage traffic congestion, national or municipal transportation plans do not necessarily represent this emphasis. However, the few vehicle projects that have been proposed in government transportation plans do directly address the concern of mass transit congestion and its consequences. Proposals to refurbish the Golden Horn Bridge, the primary means of reaching the European side of the city, as well as the broader Eurasia Corridor Project, is just one example.

**Airports**
The current literature does not reflect the importance of air transport in substantiating Istanbul’s geopolitical position. The 2010 Istanbul Master Plan proposed only the Silivri Airport project, which would add a third airport in the western area of the city.\(^7\) Although a third airport would more evenly distribute access to city centers and utilize different routes of the metro and surface road infrastructure, to this point it is only an aspirational goal. Istanbul’s strategic importance may suggest aggressive investments in air travel capacity, but documentation does not illustrate such an emphasis.

**Light rail**
Light rail is the clear priority of the Municipality of Greater Istanbul. Rail has been the most concentrated transportation investment based on the number and scale of projects proposed and managed by the city government. The most expansive light rail project to date is the Marmaray Project. This initiative describes refurbishing existing rail cars and track, building new routes, creating new connections, increasing and refurbishing surface and underground stations, and implementing an underground rail tunnel. The tunnel will connect the two most significant portions of the entire rail system and make intercontinental travel more realistic for daily commuters.\(^8\)

**Tramway**
In many ways, the tramway system is a support network for the maturing metro light rail system as it follows similar routes, and provides an alternative to building out the bus system further. The Municipality of Greater Istanbul has invested more than $54 million in upgrades to the tramline structure, including station renewal and modernization with new monitoring and ticketing technologies.

**Transportation Plan Trends**

**Portfolio:** Over the last twenty years, Istanbul has endeavored to invest heavily in transportation development across several modes of mass transit. Many individual projects within the Municipality’s portfolio have been substantial, particularly in light rail and subway lines. The Municipality has also stood up some remarkably large, multi-project transportation initiatives in the last decade. Notably, the expansive Marmaray Project will redefine the reach of light rail in Istanbul, and connect the city in ways unmatched by any other mode of transportation. Much like Istanbul’s pursuit of hosting the Olympics, the Marmaray Project serves the purpose of elevating Istanbul’s profile as a major metropolitan city as much as it will contribute
dramatically to the modernization of the city's infrastructure. Beyond these umbrella transportation initiatives lie smaller scale projects that aim to refurbish existing infrastructure and increase access to the overall mass transit grid.

**Progression:** The literature around Istanbul’s early transportation planning in the 1980s and 1990s is less profuse as compared to the 2000s. Access to transportation development data from this period is more problematic as a result. However, the literature does reveal that considerable long-term planning was done during this time to conceive of more visionary transportation initiatives. This finding validates the more recent influx of projects visible in the Municipality’s transportation agenda. Furthermore, Istanbul has been successful in realizing tangible transportation advancement in real time by balancing longer-term initiatives with shorter horizon endeavors, like refurbishing the Golden Horn Bridge. Shorter-term projects maintain the status quo while freeing up resources and capacity essential to large scheme transportation development.

** Purpose:** In the decade prior to the 2000 bid, private car ownership doubled in Istanbul putting considerable stress on an inadequate transportation infrastructure. This stress acted as a constraint on the development of Istanbul’s long-term transportation system. To address traffic congestion and accessibility, a strategy emerged that promoted investment in and prioritization of light rail a mass transit solution. Thus, more than 60 percent of identified transportation projects pertain to rail development, which comprehensively integrate other modes of transportation, such as connecting airports and bus stations centrally through the rail system.

---

**Manchester**


**Mode of Transit**

**Vehicle**
Manchester’s road system was in great need of a connection between East Manchester, the intended site for many of the Olympic events, and the rest of the Greater Manchester area. Consequently, one of the twelve projects in the 2000 bid document was a new divided highway to increase access for the entire metropolitan area. The road was created to connect East Manchester to the inner ring road, the primary highway that ties Greater Manchester together.

**Airports**
Manchester International Airport was already one of the busiest airports in the U.K. when the 1996 bid was submitted. In both bids, several projects were devoted to increasing airport capacity to 23 million passengers per year. The expansion of freight capacity was also a priority in the bids, and a necessary component for hosting the Olympics. The most significant project was the introduction of a second runway, which was a strategic planning decision for the future of Manchester International Airport.

**Rail**
As an industrial center, Greater Manchester has always been a rail hub for the region. Accordingly, Rail projects made up the vast majority of the transport sections of the bid documents. The primary focus was on the introduction of Metrolink, a light rapid transit system that was designed to connect the disparate rail systems within the city. In the 1996 bid, regional and inter-continental rail projects were also becoming a priority at a national and international level, most notably the Channel Tunnel’s Manchester terminus that opened in 1994. By the 2000 bid, Metrolink was undergoing expansion to meet the developing needs of its businesses and citizens. Similarly, the rail link between the airport and the city center had been completed, further integrating these two separate transport improvements.
Bus
Bus transportation was only mentioned in reference to national policy changes associated with the Transport Act of 1985. This legislation reformed the management of the bus system throughout the United Kingdom. By the time the 1996 bid was submitted, bus mileage in Manchester had increased at a rate of 17 million miles a year to 82.5 million miles.

Bicycles
Only one project in the 2000 bid focused on bicycles as a mode of transport. Manchester proposed various cycleways and pedestrian routes extending from the Olympic Village and East Manchester. This network was intended to increase access to underdeveloped sections of the city for the Games and beyond.

Number of Projects in Bid Documents by Mode

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle*</td>
<td>0</td>
<td>1</td>
<td>--</td>
</tr>
<tr>
<td>Rail</td>
<td>6</td>
<td>6</td>
<td>0%</td>
</tr>
<tr>
<td>Air</td>
<td>2</td>
<td>4</td>
<td>100%</td>
</tr>
<tr>
<td>Bus</td>
<td>1</td>
<td>0</td>
<td>-100%</td>
</tr>
<tr>
<td>Bike</td>
<td>0</td>
<td>1</td>
<td>--</td>
</tr>
<tr>
<td>Totals</td>
<td>9</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

*Vehicle includes surface roads, bridges, and parking.

Progression: As expected, many of the projects mentioned in each bid were slated for completion before the year of each Games. When first mentioned in the 1996 bid book, Metrolink was already proposed, funded, and under construction. Due to its large scale, only the first phase was slated for completion before the 1996 Games. In the 2000 bid, the planned expansions to the Metrolink system were also mentioned. Though time horizons mentioned in the bids represented realistic deadlines, some projects were delayed. For example, the second runway announced in the 2000 bid was opened in 2001. The continuity of these projects mirrors the consistency demonstrated in the project portfolios. In this same manner, proposed project completion dates were often included in each of the bids. However, projects are not explicitly defined so it is challenging to show rates of completion. Only through secondary sources can project status be verified, but it is clear that Manchester prioritized transportation development across both bids.

Precision: Manchester’s projects are very well defined. For the most part, this is due to the fact that these projects were already under construction at the time of the bid. For example, though the Channel Tunnel trains are an international project, the U.K. had already created their plans for the British side of the rail system prior to the bid submission. The projects that are the most vague are also the most innovative, such as the Smartcards proposed for hosting the 2000 Games.

Portfolio: Both of the Manchester bids have similar project portfolios. In 1996, two thirds of the transportation portfolio consisted of rail projects. In the 2000 bid document the same number of rail projects were proposed. However, rail represented a smaller proportion of total projects by mode (see chart above). The introduction of bike and road projects in the 2000 bid, as well as the increased number of airport projects, diversified the transportation portfolio. The difference between the projects mentioned in the 1996 and 2000 bid documents demonstrate the successful completion of projects across successive bids.
Mode of Transit

Vehicle
The driving factor in Manchester’s road infrastructure development was the continued stimulus of the downtown City Centre. This focus resulted in several projects aimed to improve existing transport routes and create new routes to relieve traffic burdens. The completion of the inner ring road was deemed the country’s most important highway plan as the main intra- and intercity connection. The engine behind the prioritization of the inner ring road was to stimulate economic growth. This connection was necessary for an increased flow of both people and goods into and through Manchester. Significant portions of the road were completed in time for the 2002 Commonwealth Games.

Rail
Since the industrial revolution, Manchester has been a hub for rail transport in the U.K. However, by the early 1990s the city had a variety of rail infrastructure that no longer met the needs of modern Greater Manchester. The city’s most pressing need was to unify the separate rail systems in the north and south. This need for integration was the primary motivation behind the proposal for Metrolink in 1983. The first portion of Metrolink became operational in 1993, but the original plan accounted for three phases of development. The third phase is still in process today, after challenges in garnering public support and funding. Metrolink may be considered a victim of its own success as its popularity led to overcrowding and other service quality issues. The 2000-2003 transport plans include varied projects to enhance capacity and improve customer experiences along the most frequently traveled lines.

Bus
After deregulation in the early 1990s, there was a significant expansion in bus mileage. By 2000, Greater Manchester’s transport planning board was undertaking several projects to improve bus services in the city. The largest project was for Quality Bus Corridors, which was anticipated to improve bus services with designated bus lanes, and further integrated bus routes with Metrolink to increase the coordination between the two systems.

Traffic Monitoring Technologies
As Manchester maintains its existing infrastructure and guarantees the quality of new projects, traffic monitoring technologies became a part of the ongoing transport infrastructure. This technology enhancement plan includes replacements of and upgrades for speed cameras, traffic lights, and other items. The changes were part of integrated planning efforts that tie together bus and private vehicle modes, as well as the general safety of the transport system in Greater Manchester.

Transportation Plan Trends

Portfolio: There is a marked shift in transportation projects in Manchester from 1987 to 2003. In the beginning of this time frame, Manchester focused on much needed and extensive projects, such as Metrolink and the completion of the inner ring road. These two projects met the accessibility needs for urban revitalization by opening East Manchester to economic possibility and the potential for development potential of the rest of the City Centre. By the early 2000s, Manchester’s focus shifted from rail to bus and road. The city’s integrated transportation plans coordinated enhancements to private vehicle access in conjunction with expanded bus services and improved safety outcomes throughout the city. Manchester’s transportation portfolio transitioned to maintenance projects, reflecting the success of the original initiatives. Specifically, the priorities shifted to the quality of the transportation experience, regardless of mode, having already met and managed the city’s immediate needs.

Progression: The shift in Manchester’s project portfolio also reflects a shift in project progression—from major projects to maintenance routines. The
timelines changed as a result, from the visionary, multi-phase goals of the original Metrolink proposal in the 1980’s to the cyclical five-year plans of the early 2000s. With a standardized planning cycle, Manchester was able to undertake more complex planning. The use of integrated planning introduced an important level of coordination between the multiple modes of transit. This planning feature was a critical step in improving transportation for the new, modern Manchester.

**Purpose:** Manchester’s transportation planning is clearly seen as a driver for economic opportunities. Many of the proposed projects address access to existing economic centers, with an end goal of driving economic growth in under-developed neighborhoods, such as East Manchester. Though air travel is not specifically mentioned in these projects, increasing access to Manchester International Airport is a significant improvement in the rail system of the city. The purpose of transportation planning was to improve economic opportunities through the unimpeded movement of people and goods. Manchester’s urban planning identifies the economic potential in its City Centre, and the transportation plans reflect the city’s evolution from an industrial hub to a 21st century service economy.

**Comparison**

**Primary Finding**

Though there is no attempt to explicitly compare the Istanbul and Manchester analyses at this juncture, the findings are similar within each city. In both instances, there is a distinct convergence between the priorities within each city’s transportation plans and the transportation projects listed in the bid documents. As cities that were willing to bid multiple times for the Olympic Games, there is evidence that Istanbul and Manchester were able to use the bid process as a vehicle to advance existing transportation priorities with varying degrees of success.

Istanbul embodied this process in many ways. The increasing investment in a rail network best illustrates this point. Over time, transportation plans have outlined an aggressive expansion of the rail system to address congestion, intercontinental travel, and increase commercial activity. Within this period of time, successive bid documents proposed similar rail expansion and placed Olympic-specific infrastructure strategically along these lines. Still, the priorities identified in the bids diverge slightly from the literature on transportation plans (see graph at right). As expected, air travel and supporting infrastructure received significant attention in the bid documents and serve to improve international transportation for the Games and long after. However, the literature around transportation plans focused very little on air transport. Regardless, the majority of projects listed in transportation plans were either explicitly or notionally represented in any number of the 2000, 2004, and 2008 bid documents.
Manchester’s bid documents and transportation plans converge around the economic revitalization of the city as a whole and East Manchester specifically. The primary focus is the importance of Metrolink as a fundamental improvement in the connection between the city center and the rest of the Greater Manchester area. Other projects build on the primary objective of economic cohesion. Many of the Olympic transportation projects were in progress at the time of the bid submission. These projects were consequently completed as part of pre-existing urban planning and transportation objectives. Though air travel was not prominent in the transportation research, the airport projects mentioned in the bids were all completed. The main divergence is found in the more innovative projects, such as the introduction of Smartcards in the 2000 bid, which saw significant delays in completion. However, a clear relationship exists between the two bids examined in this report and the evolution of Manchester’s transportation plan (see graph at right).

**Answering the Question**

How can participating in the Olympic bid process accelerate transportation development regardless of the bid result?

**Theory of Change**

The Istanbul and Manchester case studies illustrate how two cities capitalized on the Olympic bid process to accelerate transportation development despite different motivations and city contexts. No two bidding cities will ever be the same. However, this project has shown that certain elements of transportation planning are relevant for every bid applicant. Therefore, bid committees and city planners can increase the likelihood of positive transportation development through participation in the bid process.

“The Olympic bidding allows for interested cities to imagine how they have, are, and ought to develop in the future.”

- Benedict Anderson, author of Imagined Communities

*Vehicle includes surface roads, bridges, and parking.

*Traffic Monitoring Technologies (TMT).*

The following model describes an original theory of change that the project team created. While the structure of this model is derived from standard practices, the content is original and represents a synthesis of the full body of knowledge discussed in this report. This model is a useful framework for cities, but it is not intended as a formula. The complexities and timing of many of the inputs, activities and outputs may not cleanly align in practice. Furthermore, outcomes and impacts are strongly influenced by both city and global contexts. The model
is targeted to potential bidders and decision makers considering an Olympic bid. Not only will it help them decide whether or not it is strategic, but also how the opportunity may advance existing transportation priorities.

Prior to writing a bid, it is imperative that a city coalesce the resources necessary to ensure a strong submission to the IOC and positive transportation development regardless of the bid result. Within this framework, the latter ultimately defines success. The following inputs constitute the first phase of the theory of change model: strong committed leadership, potential funding sources, existing transportation plans, and application of IOC bid requirements.

**Strong, committed leadership:** Strong leadership from the bid committee, national government, and municipal leaders is a prerequisite for success. Their involvement from the bid’s inception is integral in garnering the political and financial support and buy-in of other stakeholders, such as corporations, governments, and residents. Their presence and input will directly affect the efficacy and execution of the latter phases of this model. Thus, committed leadership is essential to an enduring bid legacy, but even the strongest bid champions may not win the Olympic bid.

**Transportation plan:** Hosting the Olympic Games calls for the construction of certain infrastructure, such as large stadia. However, justifying and incorporating existing transportation priorities are critical to an effective bid, particularly for those cities that do not win. The bid process is an opportunity to reinvigorate these plans and secure transportation as a higher priority in the broader vision for a city.

**IOC Bid Requirements:** By design, bid submissions require that participants provide extensive rationale delineating how projects will be beneficial at the local, regional, and national levels, as well as for the Olympic Games. To this effect, Andrew Levin has written, “What makes failed Olympic bids so useful is that the IOC keeps boosting the amount of information required in its bid process. Cities on the international level must submit in-depth reports running to hundreds of pages in length.” The bidding cities are responsible for aligning the local and event objectives. To assist cities in this process, the IOC offers “knowledge transfer” workshops for potential bidders, which allows cities to learn best practices before the bid cycle. In this way, the IOC’s bid requirements may be seen as the mechanism that compels a city to act on many existing transport goals and support residents’ needs in a timely manner.

---

**Inputs**

- Strong, committed leadership
- Potential funding sources
- Transportation plan
- IOC bid requirements

**Activities**

- Align bid and transportation strategies
- Secure funding from public and private sources
- Establish pragmatic budgets and timelines

**Outputs**

- Increased infrastructure mileage
- Increased utilization
- Integrated planning

**Outcomes**

- Access and movement
- Increased revenues
- Strategic growth

**Impacts**

- Economic growth
- Social welfare

---

Turkey’s Prime Minister has built national support around the Olympic bid stating, “already 87 percent of people in Istanbul have said they want to host Turkey’s first ever Games in 2020.”

*Source: Bidding: How can you win even if you lose?*

**Potential funding sources:** Cities must base their aspirations in reality and make the effort to identify potential funding sources to ensure the feasibility of their plans. Without public and private funding opportunities, neither the bid nor the transportation objectives will succeed.
Activities

Like the inputs, the activities in the model occur before official bid submission. They give purpose and action to the inputs, and set a city on a trajectory for transportation development whether the bid is won or not. The three main activities to which inputs contribute are aligning bid and transportation strategies; securing funds from the public and private sectors; and establishing pragmatic budgets and timelines.

Align bid and transportation strategies: While it is important that bid documents and transportation plans inform one another, it is imperative to establish national and municipal transportation priorities independently of the bid. The bid should then be shaped around these benchmarks in order to address existing needs. The IOC’s requirements encourage coordination between a candidate’s bid committee and transport authority. A working relationship between these two bodies is not only practical but required for a positive legacy.

Secure funding from public and private sectors: Though financial analysis was not an element of these case studies, it has become clear that securing funding for complex transportation projects is neither implied nor guaranteed. The bid provides an opportunity to advance funding schedules for priority projects, which can then be completed regardless of the bid’s result.

Establish pragmatic budgets and timelines: Disciplined project planning and management determine whether grand ideas in a bid translate to tangible results. Setting realistic time horizons for transportation projects and adhering to proposed budgets will give both bid winners and losers a strong foundation from which to implement transportation plans after bid submission. To meet IOC timeline requirements, cities commit to specific deadlines relative to the date of the Games. Individual cities are responsible for ensuring that the timelines are in fact achievable without compromising budgets and quality of the projects.

Outputs

Inputs and activities pave the way for project implementation after the bid is submitted. Outputs are the direct result of transportation development projects and represent the new services cities offer to residents and visitors. For any given bidder, the outputs will be specific to the priorities included in the first two phases of the model. Thus, the following represent the most common and universal outputs: infrastructure mileage, increased utilization, and integrated planning efforts.

Increased infrastructure mileage: As projects are implemented, transit networks are expanded. Expansion initiatives are most commonly measured in miles of track laid, decreased congestion and travel times, and the expansion of bus fleets. These metrics verify project status and commitment to plans and strategies described in bid documents and existing transportation plans.

Increased utilization: Improved infrastructure will attract a larger customer base. As facilities become more efficient and effective, residents and tourists will increasingly utilize the varying modes of public transportation.

The Vice President of the NOC for the 2020 bid highlighted Istanbul’s attention funding issues: “For the last seven years there has been an average $1.2 billion (annually) on transport infrastructure upgrades in Istanbul...this trend of rapid development is set to continue.”

Source: Istanbul Unveils 2020 Summer Olympic Bid Application
Integrated planning: Finally, the most significant output is integrated city planning. By aligning bid and transportation strategies, cities are better prepared for the next stage of transportation planning. Furthermore, cities planning successive bid campaigns are one step closer to winning the bid.

Outcomes

Outcomes are the benefits that residents and the host city experience based on the extent to which activities were accomplished. These outcomes include access and movement, increased revenues, and strategic growth. Unique contexts may affect the magnitude and occurrence of certain outcomes.

Access and movement: One of the most desired outcomes a city can achieve is the provision of greater access to a variety of transportation modes. Increased access leads to greater movement within and through a city. Unrestricted movement, particularly of growing populations, is the key to several greater impacts at the city level.

Increased revenues: If planned well, new transit options will garner increased utilization with the potential to increase a city’s revenues. Though initial investments for construction can be considerable, a growing ridership can drive revenue to recoup costs and further fund expansions, upgrades, and repairs to the system.

Strategic growth: When bidders produce integrated transportation plans, an opportunity for strategic land use arises to develop specific neighborhoods and industries. This targeted development allows for corridor revitalization efforts, which could potentially address gaps in broader urban planning agendas.

Impacts

The long-term impacts of transportation development validate the signal sent by initiating an Olympic bid process. Economic growth and improved social welfare are the most significant impacts included in this model. The outcomes explored above have the potential to culminate in these long-term impacts.

Economic growth: Transportation development ultimately seeks to unlock the economic potential of a city by increasing access and decreasing the cost of commerce. This combined change can result in job growth as entrepreneurs are able to reach new markets and residents are empowered to seek professional advancement through greater access to commercial centers. Though economic growth is difficult to achieve through the bid process, with disciplined planning this impact is possible.

Social welfare: The positive benefits of transportation infrastructure development extend beyond city level economic gains to include the general welfare of city residents. The equitable distribution of benefits and an inclusive planning process produce more than a competitive bid. These elements ultimately support a positive transportation legacy through relevant, efficient, and multi-purpose infrastructure.
This report’s theory of change model provides a framework for using the Olympic bid process to accelerate transportation infrastructure development. This theory of change model is most beneficial when applied in the broader context of city planning. The bid process itself is a costly endeavor and this type of model can help cities evaluate the results of such a decision.

Cities should use the theory of change model when the following statement is true and a city meets three conditions:

If there is a significant need for targeted transportation development and the inputs outlined above are disjointed, then the bid is an appropriate catalyst to unite resources that address those needs.

1. **Significant need for targeted transportation development**: Transportation development was not the primary focus or need for some Olympic destinations, such as Atlanta, a city with an existent strong international airport and highway system. Conversely, bidders such as Barcelona (1992 Games) and New York (2012 Games) demonstrated extensive need and intent to address strategic transportation development in their bids. Infrastructure projects that become abandoned “white elephants” after the Games represent misguided, short-sighted planning that did not take into account sustainability or residents’ needs. For example, poorly located stadia and isolated, single-purpose roads, like the primary avenue to Berlin’s Olympic Stadium, are common and wasteful bid transportation initiatives. Only when transportation components of the model address an established need should the bid be used to advance transportation initiatives.

2. **Existing but disjointed inputs**: The inputs of the model act as a package, not independent parts. When each component is present a bidding city can maximize pre-bid activities to ensure transportation development. For example, Beijing’s failed bid attempts prior to hosting the 2008 Games were largely based on a lack of transportation and infrastructure, though other components of this report’s theory of change model were present.

3. **Potential to catalyze**: The Olympic bid is an opportunity to generate momentum and support to achieve defined transportation objectives. A city that has addressed the previous two points will send a stronger signal to the IOC and the world that it is ready to host the Games, and be recognized as a modern global city. Cities must invest an exorbitant amount of time, money, and influence to position themselves to benefit from the bid regardless of who is chosen to host. Effective decision makers will prepare for the moment when the bid can serve as a catalyst.

---

**ROADMAP TO ISTANBUL 2020**

The most timely and relevant application of the project team’s original theory of change model is to Istanbul’s current bid for the 2020 Olympic Games. The following section frames Istanbul’s pursuit of the Olympics within the three conditions that describe when the model should be used.
1. **Significant need for targeted transportation development**: Istanbul’s residents and leaders have recognized the need for targeted transportation development. Traffic congestion continues to be Istanbul’s key challenge. The Greater Municipality of Istanbul has increasingly prioritized alternative transportation options to driving that alleviate crowded roads and bottlenecks.

2. **Existing but disjointed inputs**: There is no doubt that national and municipal leadership is behind Istanbul’s bid. Turkey’s NOC has discussed how after receiving only seven votes for their 1993 bid, their committee members, “then visited each and every IOC member and categorized their reasons for not voting for [Turkey].” The leadership was engaged and committed to thorough and consistent follow up. However, Istanbul lacked comprehensive transportation strategies in earlier bids. The full package of inputs was not primed for the bid. Undertaking multi-faceted and visionary initiatives like the Marmaray Project represent a stronger package of inputs.

3. **Potential to catalyze**: For the last two decades, Istanbul has built momentum toward hosting the Olympics with an increasing focus on transportation infrastructure. Though unsuccessful, Turkey’s campaign to join the EU throughout the early 2000s served as a strong signal of readiness to the world. The government gradually prioritized transportation projects that encouraged inter-continental traffic flows of goods and people. Istanbul also hosted several international sporting events that capitalized on its unique geographic position. Together, these initiatives and extensive strategic planning brought Istanbul closer to the moment when they may complete a comprehensive transportation vision.

Over the past two decades, Istanbul’s approach to the Olympic bid and transportation development within the city has evolved in tandem. During the build up to the 2020 Games decision, Istanbul should stay focused on effective and appropriate inputs and activities. While the city’s end goal is to host the Games, they now more fully meet the conditions that warrant using this project’s proposed theory of change model. Their progressive and increasingly strategic use of the bid process has accelerated transportation development, and already created a positive transportation legacy.

---

**Further Research Inquiry**

This report focused on how the Olympic bid process may be used to benefit cities and communities through urban transportation development. However, there are many other interrelated topics that warrant future analysis. The project team diligently narrowed the project’s scope whereby excluding several substantial components that may easily stand-alone. The following list highlights some of these promising research opportunities, which include but are not limited to:

1. **Quantitative bid document and transportation plan analysis**: A quantitative study, such as a longitudinal analysis or a cost benefit analysis of the bid process, may identify statistically significant indicators for successful transportation planning and development.

2. **Forecasting of transportation legacy effects**: The quantitative analyses mentioned above may be expanded through a forecasting tool for decision makers. The ability to predict the potential costs of bidding and benefits of transportation development may improve the way cities engage in the bid process.

3. **Financial analysis of the bid process and transportation projects**: An analysis of the fiscal dynamics surrounding the bid process and transportation projects may provide valuable fiscal context. These findings could elucidate the optimal use of funds and inform decisions in order to support a positive transportation legacy. Furthermore, this could
be of critical value to decision makers facing fiscal constraints and competing priorities.

4. Political analysis of implementation: A deeper examination of the politics behind the planning and implementation processes for both Olympic bids and transportation plans may provide lessons for bid committees and transportation planners. Understanding the role of political forces in proposing or completing successful projects can provide insights into planning in competitive political climates.

5. Socioeconomic similarities of host cities: A rigorous analysis of socioeconomic dynamics in host cities may determine if there are any impacts from internal demographic factors. A cross-country analysis would help identify trends and similarities between host cities before, during, and after bidding for the Olympics and hosting the Games. This analytical perspective may reveal potential antecedent conditions for a successful bid.

6. Comparing transportation outcomes in bidding cities vs. transportation outcomes in hosting cities: This report shows links between bid documents and transportation plans for two bidding cities. However, a comparison between transportation outcomes in bid cities and host cities could not only provide an interesting counterfactual, but also reveal the key costs and benefits of bidding compared to hosting.

One of the most promising results of this project is the opportunity for further analysis and increased attention to the power of the bid process. Recognizing that the bid process can play a transformative role in urban development may encourage cities considering an Olympic bid to shift their approach and focus on the intermediate process of the bid as much as the result.

Not only will cities realize they have an opportunity to accelerate pre-existent urban development strategies, but cities may use the bid to redefine and enhance these infrastructure objectives. In essence, failed bids truly can be successful bids. All cities have an opportunity to create a long-lasting and positive Olympic legacy.
Appendix 1. Systematic Literature Review

A substantial amount of discourse has focused on the socioeconomic impacts of mega sporting events, particularly within the past two decades. This pre-existent and current academic attention to the group’s related project topic provided strong foundation for initial research. From the onset, the group undertook a systematic review of past literature to identify and learn from the pre-existent pool of applicable works. Librarians at Carnegie Mellon University and the Library of Congress informed the process.

As was indicated, the group first worked to provide context and learn more about the broader topic of mega-sporting events, create and related underlying assumptions about development impacts. The research question that steered the group’s decisions during the initial phase of research went as follows:

"What economic or transportation related impacts do mega-events have on host cities?"

Search and Screen

The search was conducted through four databases: ABI Inform/Proquest, Ebsco, Wiley Interscience, and JSTOR. These searches were done at the Library of Congress. The search was limited to abstracts and titles of scholarly and trade journals. The search strings used were as follows:

ABI:
AB,TI("mega sport* event" OR "mega-sport* event" OR "sport* mega event" OR "sport* mega-event") OR Olympic* OR FIFA World Cup) AND (transportation OR (economic* AND (development OR legacy)) OR (economic* AND (impact* OR outcome*))) OR forecast* OR model* OR systematic review OR meta-analysis

Wiley and JSTOR (abstracts only)
"mega sport event" OR "mega-sport event" OR "sport mega event" OR "sport mega-event" OR Olympic OR FIFA World Cup AND (transportation OR ((economic OR Transportation) AND (development OR legacy OR impact* OR outcome)) OR forecast* OR model* OR systematic review OR meta-analysis)

Ebsco
AB ("mega sport* event" OR "mega-sport* event" OR "sport* mega event" OR "sport* mega-event") OR Olympic* OR FIFA World Cup) AND (transportation OR (economic* AND (development OR legacy)) OR (economic* AND (impact* OR outcome*))) OR forecast* OR model* OR systematic review OR meta-analysis

The search produce 1,484 abstracts. The abstracts were screened by at least three members of the team. The criteria questions used to select an article for further examination were:

1. Does the article relate to Olympics or FIFA World Cup occurring in or after 1982?
2. Does the article discuss the impact, costs and/or benefits of mega sport events and/or transportation development?

This phase led to the elimination of 89% of the abstracts. 167 abstracts were selected, and the team was able to obtain 124 for close review and reading.
The results of the formal search are seen below. A total of 1,484 abstracts were produced through the search. The team met a significant obstacle in obtaining articles, as many required subscriptions to access. However, using school and public resources the team was able to pull 74.25% of the articles that were selected from the screening process.

<table>
<thead>
<tr>
<th>Database</th>
<th>Abstracts Produced</th>
<th>Abstracts Selected</th>
<th>Article Obtained</th>
<th>% of Articles Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABI/Inform</td>
<td>948</td>
<td>113</td>
<td>89</td>
<td>78.76%</td>
</tr>
<tr>
<td>Ebsco</td>
<td>414</td>
<td>36</td>
<td>20</td>
<td>55.56%</td>
</tr>
<tr>
<td>Wiley</td>
<td>74</td>
<td>13</td>
<td>10</td>
<td>76.92%</td>
</tr>
<tr>
<td>JSTOR</td>
<td>48</td>
<td>5</td>
<td>5</td>
<td>100.00%</td>
</tr>
<tr>
<td>Total</td>
<td>1,484</td>
<td>167</td>
<td>124</td>
<td>74.25%</td>
</tr>
</tbody>
</table>

The retrieved 124 articles were screened based on the criteria outlined above. A total of 39 articles were ultimately selected for careful reading and scoring. The scoring questions included:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Type</td>
<td>Olympics, FIFA, Other</td>
</tr>
<tr>
<td>Place</td>
<td>Specify which country or city and year the article focuses on, or say &quot;multiple&quot; if more than 2</td>
</tr>
<tr>
<td>Year</td>
<td>The year of the event or the time frame range the article is evaluating</td>
</tr>
<tr>
<td>Economic outcomes</td>
<td>Positive, Neutral, Negative</td>
</tr>
<tr>
<td>Transportation outcomes</td>
<td>Positive, Neutral, Negative</td>
</tr>
<tr>
<td>Timeframe</td>
<td>Is the study ex ante or ex post?</td>
</tr>
<tr>
<td>Host or Bid Focus?</td>
<td>Is this article about the host cities or the bid cities?</td>
</tr>
<tr>
<td>Scientific Rigor</td>
<td>Rate the article according to the Maryland Scientific Methods Scale.</td>
</tr>
</tbody>
</table>

The articles were scored on content and conclusions. The majority (75%) of articles discussed host cities (as opposed to bid losers). An even greater majority (77%) of articles focused on the Olympics. Case studies made up the majority of analyses (51%), with descriptive statistics used to provide insight to an aspect of one single event. Rigorous, longitudinal analyses consisted of 18% of the articles reviewed.

While 32% of the articles described positive economic outcomes, the plurality (40%) came to mixed conclusions about the economic benefits of hosting a mega-event while the remainder drew negative conclusions. In regards to transportation, only 50% mentioned transportation-related outcomes. Of those articles that do mention these outcomes, 70% describe positive transportation impacts.

These results describe the areas of research that have been thoroughly examined by academics. The findings also highlight the areas that have received less attention to date. These insights formed the foundation of the scope and methodology chosen for the rest of the report.

This paper uses highly disaggregated data on land values to evaluate the impacts of sports arenas designed to contribute to revitalization of economically deprived neighborhoods. Its results indicate that well-designed sports arenas may substantially improve location desirability.


This article concludes, "even an unsuccessful bid may arguably be beneficial" because an Olympic bid can provide an impetus for cities to "embark on large-scale urban development projects that may otherwise not be carried out or would be carried out on a much more limited scale." Some cities now start projects even before submitting bid documents as a means to create a competitive advantage. Using Berlin as a case study, this article "argue[s] that the bid provided a stimulus for the improvement of some sports facilities in Berlin because these projects complemented wider planning goals, while other projects were eventually carried out due to other landmark events, such as the move of the federal government to the city."


This article takes a look at why cities pursue the risky mega-event strategy in order to compete for urban tourism and place marketing, and how this strategy affects development policy. It concludes that due to the influence of pro-growth private sector and business leaders in the bid process development policy is affected significantly and many development projects are completed though they reflected the desires of business leaders rather than local residents.


This article explores the "mega-event strategy" of seeking high profile events to serve as a stimulus for local development by forcing development decisions to meet a strict Olympic time line. It explores how funding structures where local governments and communities have little say in development create overstated returns for the city where consumption-based economic development is substituted for local policy concerns. Thus, it concludes that the manner in which bids are conducted and games organized raises serious public policy concerns with respect to the role of access, accountability, and responsiveness in the policy making process.


Many cities compete to host mega sporting events because of the perception that winning the bid may enhance their image and stimulate their economy. However, the substantial expenditures required for international sporting events (infrastructure, organization, and security) often come from public subsidies. In order to acquire public funds, skeptics must be convinced that hosting the event will result in economic benefit. This need can motivate impact exaggeration. The article concludes that the
true economic benefits are typically far less than the numbers touted by promoters. The authors recommend that cities and countries better evaluate the promises of financial gain before committing substantial public resources to host such an event when there are likely many other uses for the funds. Thus, "hosting these premier events may be more of a monetary burden than an honor and a means of achieving economic development."


This article focuses on the inaccuracy and difficulty of impact studies with respect to mega sporting events. Impact analyses "may overstate benefits, understate costs and misuse multipliers." While determination of opportunity cost remains a large problem, events such as the Olympics, still are "becoming a new panacea for economic and urban development." The article agrees that hosting sporting events can have some benefits, but these benefits have caveats, such as building infrastructure that is integrated into the economy and provides legacy value.


This article reports on the positive outcomes of modeling used to plan the Athens games. It discusses modeling used to better plan the games, including reducing land purchasing, and reviewing locations for transportation improvements. It also discusses the ability of the PLATO tool to help smaller countries prepare for similar mega events.


The article is a harsh critique of the Beijing Olympics with an emphasis on the politically charged nature of the event. The article emphasizes the prioritization of "lavish" presentation and the overall costs that exceeded $40 billion. The piece brings to light that the building boom displaced people, violated human rights (particularly for migrant workers), and was characterized by high-level scandals. Yes, the Olympics expedited urban development, but only by exasperating the inequalities of China.


This article discusses Vancouver's transportation strategy for its Winter Olympics in 2010. Translink was involved in the planning of the Games from the very start including before the bid process. Written in 2011, it hails the transportation strategy as a success based on survey and ridership data. The transportation plan included rail, bus, and sea bus routes. While the article concludes that the program continues to be highly regarded by users even after the Games, it is concerning that the article was written very soon after the games.


This article studies the stock market reaction to the announcement of the host cities of the Olympic Games in the past three decades to determine positive effects on the host country’s economy. The authors hypothesize that “as stock markets reflect the expectations for the economic outlook, the announcement of the host city should result in a positive reaction in the winner’s stock market and a
negative one in the loser’s.” The article found “a significant and positive announcement effect of hosting the Summer Games, with a cumulative abnormal return of about two percent within a few days. Yet, [they found] no significant results for the Winter Games and for losers.”


This article examines the impacts of the FIFA World Cup held in Germany in 2006. In particular, it looks at the effects of the building of new stadia as a result of the event and its effects on employment.


This article examines the state of congestion in Athens prior to the Olympics and actions taken to bolster public transportation infrastructure and planning for the event. The case study was written two years after the Olympics and paints a positive picture of transportation planning for the games. It concludes that the games were a success in all respects, including the critical transportation area due to comprehensive initial planning, on-time completion of projects, successful application of traffic management schemes, user compliance, and increases in the use of public transportation.


This article looks at Atlanta’s ability to use the hosting of the Olympics to stimulate the local economy, promote tourism, attract new business to the region, acquire sports facilities, and achieve some urban design and infrastructure improvements. However, "the redevelopment of inner city neighborhoods that had originally been anticipated was never achieved," due to "reliance on private funding and a fragmented organizational structure." The greatest lesson that the authors draw upon is "that large-scale events provide only a limited opportunity to remake a city" and that these events benefit from more comprehensive planning efforts.


This article examines Rio de Janeiro's decades long bid for multiple mega-events, and the local and state governments' shift in priority after investing billions of dollars in transportation and infrastructure. The author contends that these efforts have shifted from prioritizing national and social development to funding costly infrastructure projects that will not only serve no purpose after the Games, but are actually threatening several social and cultural entities.


This article looks at the impacts of TSM in the Olympic Games held in Los Angeles, CA in 1984. It concludes that having a transportation strategy, while it did lead to positive impacts in this case, they are only short-term impacts during the event. None of the TSM strategies employed lasted beyond the event. It affirms that the Olympic Games are a short term event which require solutions that are not appropriate for the long term. "The Olympics have limited transferability not because the traffic solutions were unique, but rather because the decision environment was unique." Therefore, up to this point, there were no successful transportation plans that lasted beyond the Olympics.

This ex post study examined South Africa's Olympic bid following Apartheid, and how it used the bid to build one country identity and recruit investment that would distribute wealth. It highlighted South Africa's bid as one of the first to use the Games as an opportunity to make transportation infrastructure universally accessible and to signal to the world, and its own people, that it was ready for social and economic prosperity.


This paper discusses the impact of the 1996 Summer Olympic Games on employment and wages in Georgia. It shows that hosting the 1996 Summer Olympic Games boosted employment by 17% in the counties of Georgia affiliated with and close to the Olympic city.


This article reveals that the Olympic Games improve tourist infrastructure according to Beijing residents. The article discusses how infrastructure for the Olympic Games affects the economic development of the Olympic city, as well as the touristic development of the city. The factors included in this discussion are the general improvement of the city, the impact on tourism, and the possible impact of the Olympic Games in town.


This review comes to the conclusion that ex post studies are generally much more effective in evaluating the overall value of the Olympic Games than ex ante studies. This is primarily due to the nature of analysis versus projection.


This ex post case study observed the successful preparation of the 1984 Los Angeles Olympic Games, which is regarded as one of the most positive economic outcomes in Games history. Transportation and several other services were described, but only in the context of defining the unique public-private partnership that saved tax payers millions of dollars.


Leonardsen discusses the value and importance of qualitative data from the residents in the cities that host mega-events. The article promotes the need to establish a comprehensive social science methodology. It is very concerned with rigorous data and analysis to inform all aspects of mega-event research.

This article describes basic frameworks for Olympic-related investment and expenditures for the host city and host country by including six main types: operation expenditures by the OCOG, Olympic-related international and national tourism expenditures, investment in Olympic-related infrastructure, investment in Olympic venues and related facilities, and exports and foreign investment. The amount of money and types of infrastructure differ in different host cities with different needs. For example, transport infrastructure may need improvement in some host cities to be able to meet the demands of Olympic visitors, but in other host cities little or no transport investment may be needed.


The Olympic Games in Sydney had a positive effect in the seven years leading up to the Olympics but a negative effect in the five years following the Games. The article found that the more geographically close an area was to the host city, the more effect the Olympic Games had on that area. It also revealed that the transportation sector seems to be one of the sectors that experienced the most benefit when isolated from other areas.


This article examines 81 countries that have bid for the Olympics, and regardless of the bid outcome, suggests that there is no statistically relevant change in stock market prices in anticipation of or following the mega-event. The authors conclude that while the stock market is not fully representative of the overall economic impact of the Olympics, the two are complimentary and elevate the concern that the Games may not be economically beneficial for bidders.


This short "marketing" piece hones in on how a national brand links to global competitiveness. The document identifies that South Africa aims to build on its World Cup development by focusing on unity (South Africa and Africa as a whole). The article cites the "fast track of urban development" that took place as well as mentions the positive reputation created for Germany in 2006 for the World Cup.


This article discusses transport planning for the London Olympic Games and how it is contributing to sustainability. It also explores the impact on populations and suggests that health should be measured prospectively.


This article includes and explores Beijing's Budget Plan for the Olympic Games. The article also shows how many other indicators such as employment, migration, tax revenue and tourism would be affected by the Games.

This article provides very applicable and unique elements to the capstone topics of bid losers, pre-existent development plans, the importance of consensus and communication among key players. The article illustrates the significance of a long-term vision in creating a positive legacy and avoiding the centralization of any benefits. Further the piece broadens analysis to all past mega-events (mentioning Sydney, Barcelona, Atlanta, Lillehammer, Beijing, Montreal). Most importantly, the article cites Cape Town's failed bid in reference to South Africa World Cup prep process and indicates that there were "lessons learned" from the failed bid.


This was a study mostly comparing ex ante versus ex post studies. It mentions that ex post studies are generally more effective, but even some of the data they show should be looked at more closely. For example, hotel prices generally go up during the Olympics and this can be viewed as a sign of positive economic activity, but what is the overall impact on the economy?


Hosting the Olympic Games should be viewed as a longer-term investment where the main benefit is the signaling of readiness to engage in international trade. The Olympics are often hosted in countries that have recently entered into some sort of free trade agreement (or similar) and hosting an international event seems to give confidence to the international community that the country is now ready to become a real part of the global economy.


Although this article focuses on a set of transportation targets for the 2008 Beijing Olympics (developed by the Chinese Government), most of the transport goals outlined are long-term, overall transportation strategies. The majority of the highway, taxi, road, subway, and bus plans and projected benefits are not founded on Olympic activity. Instead, the achievement of the outlined transportation objectives would benefit the capital city and periphery areas in the long-term (potentially even the whole country due to long-distance rail work). The article stresses the application of intelligent scientific management of transportation and traffic. In terms of CMU's purposes, this piece may be drawn on to show how a bid contributes to necessary defined/overall/expedited project implementation.


This piece stresses the importance of certain preconditions related to large-scale sports events. The piece references the significance of the long-term image or signal made by a mega-event game. Most importantly, the authors state that the bid "promotes innovation through competition." This concept is extraordinary relevant to the CMU project and must be considered throughout the course of the year. Although the authors do not hash out this statement, they indicate that through the bidding process is most influential to the innovative and positive ideas that develop.

This article highlights the global dimensions of bidding for mega-events by focusing on Cape Town’s failed bid for the 2004 Olympics. It also focuses on how the bid plays into a city’s desire for development and global attention.


This article argues that politicians should not make extravagant claims about the economic benefits of hosting major events because residents want to have these events and do not need to be persuaded. The article encourages FIFA and the IOC to award “major events to nations that could demonstrate significant achievement in the pursuit of socially desirable goals.”


This article looks at the economic impacts of hosting mega-events such as the Olympics. It examines 15 countries that hosted 24 different Olympic Games. It concludes that the economic impact (in terms of GDP and unemployment) is positive, but only in the 'pre-game phase.' It points out that one flaw in the research is that it can only look at national indicators and not city/local ones. Another flaw it identifies is the fact that the data cannot represent developing nations as most games are hosted in developed ones.


This article looks at “the effect of the nomination of Athens as the hosting city for the Olympics of 2004 on the stock exchanges of Greece (winner) and Italy (loser).” It assumes, backed by academic literature, that “sporting mega-events have a positive contribution to the host area economy,” which “implies that the stock exchange should react positively to the announcement of such events.” The study found that the Athens Stock Exchange (ASE) was positively affected by the announcement of the host but that the Milan Stock Exchange (MSE) was not significantly affected. The article finds that “the differences in the impact of the announcement to economy size differences between the two countries and to the assessment is attributed to the fact that due to the highly competitive nature of the bidding process financial markets assign higher probability to losing instead of winning.” Other factors that contribute to this difference are economy size and geographical differences.


This paper discusses the Beijing Olympic Transport Model (BOTM), which was designed to provide a tool for analyzing travel demand and forecasting traffic operation conditions during Olympic Games. It concludes that Beijing's transportation strategy was a success and will leave a lasting positive legacy.

This case study seeks to reveal the unstable nature of growth coalitions formed around specific events particularly when the city involved is undergoing market transitions, as in China. It concludes that long-term coalitions, rather than those formed around a specific event, are more sustainable.


This paper analyzes the impact of Olympic-related investments on the economic development of Beijing and its surrounding areas, as well as the rest of China. The input–output model provides a satisfactory simulation and analysis of positive Olympic-related investments that are implemented in Beijing and other areas and their spillover effects on other regions.
## Appendix 2. Consultation List

<table>
<thead>
<tr>
<th>Prefix</th>
<th>First Name</th>
<th>Last Name</th>
<th>Organization</th>
<th>Title</th>
<th>Expertise</th>
<th>Date(s) of Consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dr.</td>
<td>Richard Bailey</td>
<td>RBES Ltd.</td>
<td>Director</td>
<td>Sport and Education</td>
<td>2/3/12; 3/16/12</td>
</tr>
<tr>
<td></td>
<td>Ms.</td>
<td>Aileen Carrigan</td>
<td>EMBARQ at World Resources Institute</td>
<td>Senior Associate</td>
<td>Sustainable Urban Transport; Monitoring &amp; Evaluation</td>
<td>1/11/12</td>
</tr>
<tr>
<td></td>
<td>Dr.</td>
<td>Dennis Coates</td>
<td>University of Maryland-Baltimore</td>
<td>Professor of Economics</td>
<td>Economics of Sport</td>
<td>2/3/12; 3/16/12</td>
</tr>
<tr>
<td></td>
<td>Dr.</td>
<td>Bill Sermons</td>
<td>Center for Responsible Lending</td>
<td>DC Director</td>
<td>Economic Development</td>
<td>12/12/11; 2/3/12; 3/16/12</td>
</tr>
<tr>
<td></td>
<td>Dr.</td>
<td>Allison Stewart</td>
<td>Oxford University</td>
<td>Research Assistant to Dr. Bent Flyvbjerg</td>
<td>Mega-Events &amp; City Management</td>
<td>3/16/12</td>
</tr>
</tbody>
</table>

### Ongoing Consultations or Key Informants

| Mr. | Charles Battle | Olympics Games Bid Committee | International Advisor | Olympics Consulting | 1/6/12; 2/24/12 |
| Dr. | Eva Kassens-Noor | Michigan State University | Assistant Professor of Urban Transport and Planning | Urban Transportation Planning | 1/22/12 |

### Audio Interviews

| Dr. | Tamer Cavusgil | Center for International Business Education and Research, Georgia State University | Executive Director | Global Business Strategy | 3/15/12 |
| Mr. | Ed Hula       | Around the Rings               | Founder and Editor | Olympics Correspondence | 3/30/12 |
| Mr. | Michael Salmon | LA84 Foundation Library       | Researcher          | Olympics Archiving     | 3/30/12 |

### Other One-Time Conversations

| Dr. | Philippe Bovy | Swiss Federal Institute of Technology in Lausanne (EPFL) | Emeritus Professor; IOC Evaluation Committee Member | Mega-Event Transport & Mobility | 3/3/12 |
| Dr. | John Horne    | School of Sport, Tourism and the Outdoors, University of Central Lancashire | Professor of Sport | Mega Sport Events | 11/30/11 |
| Ms. | Mori Taheripour | Sports for Development, USAID | Senior Advisor | Development & Sport | 12/16/11 |
## Appendix 3.1 Transportation Projects Index: Istanbul Bid

### Istanbul Olympic Bids

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2000 Bid</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ataturk Airport cargo terminal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second airport on the Asian side</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,500 km highway on TEM and E-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connecting roads for ring roads</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subway system foundation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10km subway line</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-level parking lots</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2004 Bid</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kocaeli Cengiz Topel Airport International terminal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ataturk Airport terminal building for international flights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ataturk Airport runway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yenibosna-Ataturk International Airport light rail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curlu Airport expansion terminal building</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection between Halkali Housing Complex and Olympic Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golden Horn Bridge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bosphorus road improvements and tunnel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquisition of public sea vehicles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2008 Bid</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ataturk Airport 5 international departure gates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kurtköy Sabiha Gökcen International Airport</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third ring road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cobancesme Junction Olympic Park-Northern Motorway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercity Bus Terminal (Esenler)-İkitelli road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seyrantepe Junction-Maslak road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seyrantepe Junction-Ataturk Sanayi Sitesi road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S3 open parking lots</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taksim-Yenikapi subway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gebze-Haydarpasa: Sirkeci-Halkali surface rail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eminonu-Üskudar rail tube-tunnel crossing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>4th Levent-Ayazaga subway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zeytinburnu-Gungoren-Bagcilar tramway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yenikapi-Topkapi-Bagcilar subway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Halkali-Ikitelli light rail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kartal-Kurtkoy-Pendik-Tuzla light rail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Halkali-Olympic Village-Olympic Park-Halkali (loop) surface rail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercity Bus Terminal-Mahmutbey-Ikitelli-Olympic Park-Basak Housing subway and light rail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IETT Municipal bus fleet increase</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signalized road junction increase by 1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer monitored and manipulated signalized junctions to 416</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic monitoring cameras to 100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**
- **Proposed Project**
- **Target Completion Date**
- **Completed Project**
# Appendix 3.2 Transportation Projects Index: Istanbul Transportation Plans

## Istanbul Transportation Plans

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eurasia Corridor Project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refurbishment of Golden Horn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marmaray Project - Commuter rail system (Halkali to Gebze)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marmaray Project - Bosphorus tunnel rail addition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marmaray Project - Uskudar, Yenikapi, and Sirkeci underground rail stations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marmaray Project - 36 New surface stations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marmaray Project - Integration to all rail transit systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silivri Airport project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Bridge over the Bosphorus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern Extension of Taksim/4 Levent Metro Line (Phase 2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern Extension of 4 Levent-Maslak Metro Line</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kadikoy-Kartal Metro</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Levent-Darussafaka Metro</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Otoğar-Bagcılar LRT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bagcılar-Ikitelli-Olimpiyat Koyu Metro</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aksaray-Yenikapi LRT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topkapı-Edirnekapi-Sultanahmet Tramway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Türk Telekom, Tişir, Erdemir, Atatürk Airport (privatize)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ankara-Konya High Speed Train Project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taksim - 4 Levent metro line (Phase 1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tram line station renewal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extension of the light metro line from Yenibosna to the Airport</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harem-Kartal Rail System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Üsküdar-Ümraniye Rail System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vezneciler-Sultanahmet Tram Line</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zeytinburnu-Bağcılar Tram Line</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taksim-Kabataş Rail Tunnel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Otoğar-Ataşalı-Ikitelli Light Metro Line</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 3.3 Transportation Projects Index: Manchester Bid

#### Manchester Olympic Bids

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1996 Bid</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIA increase passenger capacity by 23 million</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional MIA Terminal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Light Rapid Transit System (Metrolink)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International train lines through to The Continent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terminus of channel trains</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rail link from city to MIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 minute reduction in inter-city travel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Express trains on regional lines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suburban train service capital improvement programme</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deregulation of bus services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2000 Bid</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>World Freight Terminal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passenger Terminal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rail link from city to MIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Runway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International train lines through to The Continent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upgrade to rail line (vague) and New station for Olympic Centre connecting to Piccadilly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Manchester Ring Rail Route</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metrolink Extensions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New dual carriageways</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction of Smartcards</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network of cycleways</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Legend:

- **Proposed Project**
- **Target Completion Date**
- **Completed Project**
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation Projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metrolink single contract</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>extensions to Oldham/Rochdale,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ashton-Under-Lyne, and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manchester Airport</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manchester and Salford inner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>relief route (final section)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport Interchange (Shudehill)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completion of previously accepted major highway schemes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Traffic Controll block</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>replacement program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salford-Leigh-Manchester</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Busway/Bus priority route</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metrolink Bury-Altrincham line</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacitly Enhancement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality Bus Corridors (and airport routes) Major Scheme Bid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cadishead Way, Salford (Brinell Drive-City Boundary)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wigan integrate transport sceme</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(inner relief road)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrate transport schemes-5 year program (including quality bus corridor and local safety schemes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principal road maintenance/bridge and highway retaining wall strengthening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manchester Inner Ring Road First Section (Trinity Way)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manchester Inner Ring Road Final Section (Trinity Way)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windsor Link (rail)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airport rail link</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Safety Schemes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**
- Green: Proposed Project
- Yellow: Target Completion Date
- Red: Completed Project


32 Literature Review (See Appendix 1)

33 Consultation List (See Appendix 2)


35 Bid/Transport Project Index (See Appendix 3.1-3.4)


"Istanbuls and bears Turkey has one of the world’s zippiest economies, but it is too reliant on hot money." The Economist 7 April 2012.


"Erdogan at bay." The Economist 25 February 2012.


U.S. Department of State Diplomacy in Action Background Note: Turkey. 20 March 2012.

U.S. Department of State Diplomacy in Action Background Note: Turkey. 20 March 2012.


Bid/Transport Project Index (See Appendix 3.1-3.4)


Ibid.

Ibid.


