The Production & Impacts of Public-Private Partnerships in Public Transport Systems & Urban Regimes

Erasmus Mundus Master Course in Urban Studies [4CITIES]

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Abstract

As municipal governments across the world are grappling with the task of building and renewing their urban infrastructure to keep up with a rapid rate of urbanization, many have turned to public-private partnerships (P3s) as a key procurement method to developing their public transportation systems. With the results of academic literature not demonstrating clear benefits of P3 agreements, there remains questions on what influences municipalities to pursue P3 agreements for the development of their public transport networks. Furthermore, the impacts of adopting a P3 marks a neoliberal shift in the governance of cities, outsourcing many aspects of public transportation provision to the private sector consortium. The ways in which a P3 impacts/is impacted by urban governance in cities is also often not considered in decision-making processes concerning various procurement approaches.

This thesis aims to address this literature gap, connecting the literature on P3 adoption to urban regime theory through examination of the Ottawa O-Train Confederation Line, Stage 1. Drawing upon the documents and transcripts publicized as part of the Ottawa Light Rail Commission Public Inquiry, as well as the author's own semi-structured interviews with Ottawa Transit Commissioners, this study examines the factors which contributed to the decision to pursue a P3 for this project, and how those factors impacted the resulting infrastructure, as well as urban governance and regimes. Guided by Siemiatycki's 2013 paper, *The Global Production of Transportation Public-Private Partnerships,* this thesis tests this framework, and analyzes how global and systemic factors influence the adoption of P3s for public transportation, and how they impact its performance and urban governance processes.

Ultimately, this thesis finds that the factors identified in Siemiatycki's framework explain to a large extent the factors that influenced the adoption of a P3 in the case of the Ottawa LRT. Beyond this, to a limited extent they appeared to influence the performance of the system, however, a variety of other factors beyond these global market factors had impacts on the performance. Beyond the impact of the P3 on the LRT system itself, it's also clear that global market factors led to the creation of an urban political order of state and non-state actors who leveraged elements of the P3 arrangement in order to preserve their power. This ultimately suggests that there is a need for policymakers to be better informed on the implications of P3s on urban governance, and that municipalities must be better equipped to negotiate and procure large urban infrastructure projects and must consider a variety of procurement approaches tailored to the project itself, considering the impacts that the procurement type will have on the infrastructure and governance of cities in the long-term.

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Acronyms and Notes

DBFM – design-build-finance-maintain

DBFOM – design-build-finance-operate-maintain

LRT – light rail transit

OC Transpo – Ottawa-Carleton Transportation, the name of the municipal agency responsible for providing transportation services to the municipality of Ottawa.

P3 – public-private partnership

RTG – Rideau Transit Group

RTM – Rideau Transit Maintenance Group – note, RTM is a subsidiary of RTG, following substantial completion, responsibility for the LRT was transferred from RTG to RTM. They are in essence though, the same organization.

RFP – Request for Proposals

the City – The City of Ottawa

TSB – Transportation Safety Board

$ - All dollar values are expressed in Canadian dollars in their nominal value unless stated otherwise.

OLRTCPI – Ottawa Light Rail Transit Public Inquiry Commission

OLRT1 – Ottawa O-Train, Confederation Line, Stage 1 (this abbreviation was adopted by the OLRTCPI in their documents and reports)

Images: All images included in this thesis are by the author, taken in 2021 of the O-Train, Confederation Line, Stage 1, unless otherwise noted.

Foreword

I realize the irony of focusing on a North American case study in what is my hometown of Ottawa for my master's thesis in a program where I've spent the past two years travelling across Europe, learning about urban studies. That being said, this program has taught me so much, and it has been near impossible for me to not think of how these lessons I've learned could be applied to my hometown to make it a better place. In reality, I said in my motivation letter for this program that I hope to learn from the best practices in Europe, and apply those practices to North America, and I hope that this thesis does that commitment justice. I have also been asked why I chose the examination of public-private partnerships as my thesis topic for Urban Studies. It's definitely not a glamorous topic. Public-private partnerships are complex, and highly technical legal contracts between a conglomerate of corporations and public actors. I could have written something nice and interesting about something that is more tangible in the city. However, one definition of cities argues that cities are in essence a concentration of infrastructure and people. I feel that learning about the factors that produce our urban infrastructure, and in turn how those factors impact our urban governance will help us to create better infrastructure in the future. There is a deficit of research into P3s considering how much money is allocated to them annually, and I hope to contribute to righting this imbalance.

Positionality

I recognize that researchers must maintain an impartial distance from their research topic in order to develop accurate and objective assessments. I must be transparent about my starting point for this research. I am very familiar with the O-Train Confederation Line, and have been very disappointed with its performance to date. For the opening ceremony on September 14, 2019, I dragged 8 of my friends with me at 8am to the far end of the line so that we could be among the first to ride it end-to-end. I had waited many years for the system to be complete, excited at what it meant for the city. What has followed has left me feeling discouraged, both as a public transit user, an urbanist and as someone who truly believes in the transformative power of political action. I feel compassion for the residents of Ottawa who continue to have to endure the daily frustrations, cancellations and delays that make their lives more difficult, and push more and more people away from public transport. I hope that this thesis contributes to understanding the processes and forces which have influenced the poor performance of this system so that the mistakes of the past will not be repeated.

Figure 1 - The author in front of the entrance to Tunney's Pasture Station, the western terminus of the O-Train Confederation Line on opening day, September 14, 2019.

Figure 2 – The author and two friends aboard the O-Train Confederation Line on opening day, September 14, 2019.

1 – Introduction

One of the most fascinating and alluring aspects of urban studies is how understanding how cities are built impacts people's everyday lives and has far-reaching ramifications that impact the economy, environment and many other of the most pressing policy areas of our time. Few people will question why the sidewalk will end at a particular intersection, why the houses in their neighbourhoods are being converted to apartments, or why a public transportation system was built the way it was. Cities are rapidly growing, with 68% of the world's population forecasted to be living in cities by 2050, cities must rapidly expand and build new infrastructure in order to accommodate these new influxes of people (UN, 2018). The procurement of urban infrastructure is top of policymaker's minds as they hope to attain the best value for money as municipal governments face strained budgets across a wide range of budgetary demands in the context of neoliberalism.

One way that governments have adapted their approach to the development of new urban infrastructure is through the use of public-private partnerships (P3s). Emerging first in the United Kingdom under Margaret Thatcher in the 1980s, by employing this neoliberal development approach, governments espouse that they are able to harness the advantages of private sector efficiency while developing high-quality infrastructure that serves the needs of the public for years to come (Boardman et al., 2016; Hodge & Greve, 2013). One piece of urban infrastructure that has particularly embraced the use of P3s for their development is that of transportation infrastructure. In Europe alone, there has been over €224 billion invested in P3s in the transportation sector since 1990, with urban public transportation projects driving the bulk of new growth in the P3 sector (European Investment Bank, 2022).

The research into P3s in the context of urban studies is a fascinating intersection of public policy and political science, with the impacts of P3s and the infrastructure they produce being some of the most tangible on the built environment. In many cases, P3 projects, and in particular those in the public transport sector represent the most significant government investments into infrastructure in their respective jurisdictions. For the amount of money that is invested annually into P3s, there is a notable lack of research into them, with research on there benefits and drawbacks unable to identify clearly whether they do outperform traditional procurement methods (G. Hodge & Greve, 2022).

Problem Statement

Many municipal governments share the same ultimate goal when it comes to developing public transportation systems, to build public transportation infrastructure that is cost-effective, and will provide sustainable transportation services to their citizens for years to come. The best way to accomplish this task, however, is debated. There has been a shift in recent years with many cities in Canada opting to leverage P3s to construct public transportation systems in contrast to historical traditional procurement approaches (Siemiatycki, 2015). The reasons that Canadian cities have adopted P3s as the primary means of developing public transportation systems remains poorly understood. Furthermore, the impacts of adopting a P3 marks a neoliberal shift in the governance of cities, outsourcing many aspects of public transportation provision to the private sector consortium. The ways in

which a P3 impacts/is impacted by urban governance in cities is also often not considered in decision-making processes concerning various procurement approaches. Thus, the aims of this thesis shall be twofold. Firstly, this thesis aims to provide insight into the motivations for the proliferation of P3s through examining how market and systemic factors contribute to the adoption of P3s, and furthermore how these factors impact their performance. Secondly, this thesis aims to understand how this neoliberal procurement approach impacts/is impacted by urban governance processes.

Research Questions

These two aims lead to the following research questions:

R1: How do global market and systemic factors influence the procurement and performance of public-private partnerships for public transport projects?

R2: How do public-private partnerships impact/are impacted by urban governance processes?

By answering these research questions, this thesis aims to connect the body of literature on P3s to urban governance research. Ultimately this thesis seeks to better understand how the neoliberalization and commodification of urban infrastructure impacts its end users through system performance, and how global capital accumulation processes impact local urban governance. By providing better understanding of how global markets and urban governance impacts P3's performance and proliferation, policymakers will be able to better understand the significant impacts that P3s can have on a city beyond their impacts to the project's price tag.

Ottawa Light Rail Transit Public Inquiry Commission

I would like to acknowledge and position this thesis in the context of the work of the Ottawa Light Rail Transit Commission Public Inquiry (OLRTCPI). Much of this thesis would not have been possible without the excellent work of the OLRTCPI. The selected case of the Ottawa O-Train is particularly appealing as a prospect for academic study due to the public inquiry which declassified and published a significant number of interview transcripts and documents which would otherwise not be available in a typical case. The original mandate of the Commission was to "inquire into the commercial and technical circumstances that led to the [Ottawa O-Train Confederation Line, Stage 1] OLRT1, breakdowns and derailments" (Ottawa Light Rail Transit Commission, 2022, p. 537). This gave the Commission a "fact-finding mandate" (Ottawa Light Rail Transit Commission, 2022, p. 513) which sought to understand the circumstances surrounding the procurement and management of the OLRT1. This thesis does not seek to replicate the findings of the Commission. Rather, the aim of this research is to academically contextualize and position the findings of the Commission within the broader, global trends of the neoliberalized urban governance through the testing and extension of existing theories of P3 adoption and urban governance. Moreover, the aim of this thesis is to connect and supplement the research and findings of the Commission in the local context of Ottawa within the broader global academic literature into urban governance.

Thesis Structure

This paper is divided into chapters, following this introduction to the research, the second chapter shall provide an overview of the literature on the neoliberalization of the state and the city, and how this process has impacted urban governance, including an overview of the conceptual frameworks of neoliberal urban governance. The literature review then provides an overview of the literature on P3s, demonstrating how these arrangements emerged in the context of neoliberalizing municipal governance. The literature review shall also cover literature regarding the performance and rise of P3s as a procurement approach. Lastly, through critical examination of this research, and an overview of proposed research agendas for P3s by the field's thought leaders, this chapter will help to further position the research undertaken for this thesis by identifying the gap in understanding how market, systemic and urban governance factors can influence the adoption and performance of P3s.

The third chapter focuses on the methodological tools employed for the research undertaken in this thesis. In particular, it will examine and explain the rationale for undertaking case-study research for this thesis, and how document analysis and semi-structured interviews were conducted, building upon best practices. This will help to build upon the rationale for the selection of the OLRT1 as an ideal case study to conduct case study research into the factors impacting the procurement and performance of P3s for public transport projects. It will explain the research's procedure for data collection and analysis, as well as an overview of how the research has evolved which impacted the research design and methods employed.

The fourth chapter, provides an overview of the selected case, providing a narrative summary of the development of the OLRT1, highlighting key events. While this is not a comprehensive timeline of events, the selected events will help to contextualize the results in the following chapter.

The fifth chapter presents the findings of the research. The first section focuses on identifying how the global and systemic factors in Siemiatycki's (2013) framework impacted the procurement and performance of a P3 for the OLRT1. The results then explore how the P3 impacted/was impacted by the urban governance in Ottawa, examining the political dynamics on council and how the P3 impacted their tactics with a particular focus on the accountability and transparency of urban governance in Ottawa. This section then concludes with an examination of the evolution of the urban political order in Ottawa.

The sixth and final chapter summarizes the findings and contextualizes them in the context of the theoretical frameworks, extending the frameworks where appropriate. This chapter also identifies recommendations for future research and policymakers. Lastly the thesis shall conclude with some remarks regarding the neoliberalization of the state and urban infrastructure and how these forces impact our collective urban futures.

2 – Literature Review

In conducting this literature review, I searched for scholarly literature using the University of Vienna's u:search service, supplemented by the Royal Danish Library's collection. This literature review is separated into 3 parts. The first section sets the context for my thesis by examining the literature on the neoliberalization of the state and the city. These concepts are important for my thesis as I am examining the factors of production of P3s in urban settings, and neoliberalization is the key ideology that has enabled these types of arrangements. The literature review then examine the state of research on the evolution of urban governance in cities and theories of urban regime analysis. I then review the state of research on P3s, with a particular focus on P3s in urban public transportation projects. Lastly, I identify the research gaps that exist in the P3 literature and situate my proposed research into the production and impacts of P3s in light rail transit systems.

The Neoliberalization of the State and the City

Neoliberalism can be understood as "the belief that open, competitive and 'unregulated markets', liberated from state interference and the actions of social collectives represent the optimal mechanism for socioeconomic development." (Theodore et al., 2012, p. 15). In a process beginning in the late 1970s and early 1980s, neoliberal ideology began to take hold across the world as a response to declining rates of return on capital (Harvey, 2005). The role of the state in neoliberalism is significantly reduced, prioritizing the

protection of individual property rights, the, maintaining the rule of law, and ensuring that institutions are maintained to allow for free markets (Harvey, 2005, p. 64). As part of this neoliberal doctrine, governments began to increasingly look to the private sector to deliver previously public services and to incorporate market mechanisms into the delivery of public services (Birch & Siemiatycki, 2016; Harvey, 2005). The rationale supporting this neoliberalization effort implied that the private sector would be able to provide public services more efficiently and for a lower cost due to the inclusion of market mechanisms (Hodge & Greve, 2013). P3s are a key indicator of the neoliberalization of the state because of their explicit purpose of incorporating market mechanisms into the design, financing, construction, operation, and maintenance, of public infrastructure based on the belief that this will achieve higher quality infrastructure at lower cost (Hodge & Greve, 2013). The neoliberalization of the state and increased attention to maximizing efficiency within government institutions gave rise to a new regime of governance known as 'New Public Management'. This governance paradigm prioritizes the role of government to be on managing public resources effectively as opposed to necessarily being responsible for the provision of traditional government services (Christensen & Lægreid, 2011).

The Neoliberalization of Cities

This neoliberal ideology was identified in cities in the late 1980s by David Harvey (1989) who found that urban governance increasingly focused on 'entrepreneurialism' as opposed to the managerialism of the past era. This new model of governance was characterized by risky and speculative partnerships between state and private actors to develop projects which were able to generate profits for private actors and emphasised economic growth as a primary objective (Harvey, 1989). Neil Brenner has built upon this concept of neoliberal urban governance, arguing that cities act as strategic sites for new state interventions that either enable or constrain capital accumulation and social regulation (Brenner, 2004). He has also identified that urban governance has been rescaled in the era of modern global capitalism, with the scalar politics of large institutional actors such as the EU, national governments, regional organizations and local movements all playing key roles in influencing urban development agendas and redistributing power amongst these new levels of governance (Brenner, 2004). The increased role and influence of private actors in the development of urban areas observed by Harvey in the shift to urban entrepreneurialism was further developed by Logan and Molotch's (1987) concept of "urban growth coalitions". Urban growth coalitions are a select group urban actors who work together to lobby for economic growth in the city. Identifying this new, cooperative form of governance, Stone (1989), developed the similar concept of 'urban regimes' which are coalitions of state and non-state actors who work together the achieve common goals in urban governance. Stone identifies an urban regime as "the informal arrangements by which actors co-operate in the pursuit of shared goals"(Stone, 1989, p. 6). While coming to similar conclusions about the increased influence of non-state actors on urban development, Logan and Molotch's concept of urban growth coalitions, and Stone's urban regime theory differ in the common goal shared by the non-state actors.

Urban Regime Theory and the Urban Political Order

While Logan and Molotch argue that economic growth is the key factor bringing non-state actors together, Stone's urban regime theory is more flexible in understanding a broader range of potential common goals. Stone argues that true power is identified by a power to enact a political or economic agenda, identifying the key power struggle within urban politics is the "*power to*, not *power over*" (Stone, 1989, p. 229). He argues that the key tenet of regime analysis is that stable coalitions must have stable resources to enact their agenda, with resources being understood in a broader sense beyond simply economic resources, but also political capital, and civic networks including non-governmental organizations etc. (Smith, 2019). Despite widespread adoption of this theoretical framework for understanding urban governance throughout the 1990s and early 2000s, some scholars challenged it's relevance or widespread application. For instance, Mossberger and Stoker argued that the assumption that all cities had urban regimes led to concept stretching which reduced the theory's initial explanatory power (2001). Others challenged the theories relevance outside of the US context, finding that centralized decision-making in the UK led the relationships between public and private entities to be largely symbolic (Davies, 2003).

Many scholars have since challenged the applicability of Stone's original regime theory in the 21st century. Clarence Stone, the original proponent of urban regime theory has since developed a new concept known as the "urban political order" which he describes as:

> "not as a static arrangement but as a cluster of evolving relationships anchored in the city and extending into an intergovernmental dimension and reflecting an ongoing process of globalization. Like regime analysis, the concept of an urban political order retains the idea of a political whole and focuses on the way it holds together and how its tensions are manifested. As a concept, urban political order is intended to have room for cross-time comparisons as well as those across cities." (Stone, 2015, p. 109)

Stone attributes the previous urban regime theory to being a product of a specific era, in which cities were undergoing significant economic restructurings as a result of significant amounts of federal funding being allocated to municipal infrastructure projects (Stone, 2015). In the modern era of politics, he argues that the "one-time high-cohesion regimes held together around a redevelopment agenda (federally funded in large measure)" are now "diffuse governing arrangements and a less sharply defined agenda" (Stone, 2015, p. 2). Ultimately he argues that by maintaining the core elements of urban regime analysis, but shifting the focus of analysis from urban regimes to urban political orders, examining the more incremental political shifts that occur in the modern era of governance allows for better examination of cities across time and national contexts.

Infrastructuralism and the Neoliberal City

Infrastructure is central to any modern city, and a concentration of infrastructure could arguably be the defining feature that separates the urban from the rural. Kaika and Swyngedouw have argued that infrastructure is an important 'fetish' of the modern neoliberal city, as cities have increasingly become centres of capital accumulation and are developed to promote economic growth (2000). This lust for the development of new

infrastructure by cities is what forms the concept of *infrastructuralism*. Beyond their inherent use values, infrastructure in itself through neoliberalization has become an asset class that is able to generate profits for private entities (Olesen, 2020; Weber et al., 2016). Beyond these direct profit motives, Kaika and Swyngedouw have further argued that infrastructure has become "objects of desire in themselves and for themselves, independent from their use value" (Kaika & Swyngedouw, 2000, p. 123). In an age of neoliberal cities, Marshall (2013) argues that this infrastructure 'fetish' can be understood through the rationality that "infrastructure is needed for economic success" (Marshall, 2013, p. 124) As a result of this infrastructuralism mindset adopted by neoliberal cities, a number of impacts can be observed. Firstly, large-scale infrastructure projects tend to be depoliticized, with the decisions to proceed with a particular project often made in advance of formal announcements or consultations with the public, with questions of necessity often justified based on assumptions that the investment in infrastructure is inherently good (Legacy, 2016) More broadly, Dikeç and Swyngedouw identify an interesting contention that emerges in modern neoliberal urban governance, arguing that "critical urban theory needs to take into account the peculiar coexistence of a depoliticizing neoliberal consensus on the one hand, and contemporary forms of urban uprisings that have politicized the urban landscape in new ways on the other" (2017, p. 4) This is particularly relevant in the context of large infrastructure projects, as on one hand, there is an increasing consensus to use neoliberal procurement strategies, such as P3s. On the other hand, a variety of actors, including the public have access to a much wider variety of platforms through which to organize and contest these projects, such as through social media. Secondly, this depoliticization of projects also is predicated on an overestimation of the benefits, value or demand for the project with an underestimation of construction costs (Flyvbjerg et al., 2003). Lastly, pressures from urban growth coalitions such as the multinational conglomerates profiting off of the construction of these projects can also lead to expedited decision making processes in order to satiate the need for economic growth and infrastructure (Legacy, 2016; Whiteside, 2021).

Light Rail Transit (LRT) Systems in the context of neoliberalism

LRT Systems are defined by the American Public Transportation Association (APTA) as:

> "a mode of transit service (also called streetcar, tramway, or trolley) operating passenger rail cars singly (or in short, usually two-car or three-car, trains) on fixed rails in right-of-way that is often separated from other traffic for part or much of the way. Light rail vehicles are typically driven electrically with power being drawn from an overhead electric line via a trolley or a pantograph; driven by an operator on board the vehicle; and may have either high platform loading or low-level boarding using steps." (American Public Transportation Association, 2018)

Originating in the late 1800s, streetcars, the precursors to modern day LRT, were a fixture of the conception of modern cities (Olesen, 2020). They declined throughout the mid-1900s as many cities gave up their streetcar systems, favouring car-based development. LRT is seeing a resurgence in the 21st century as many cities look to provide new sustainable transportation options. Increasingly, there is a recognition that LRT systems in themselves

can be viewed as a product of the neoliberalization of cities (Olesen, 2020). Numerous scholars have found that in the European context, light rail projects have been conceived as urban economic development projects rather than transportation projects alone (Nicolaisen et al., 2017; Olesen, 2014; Siemiatycki, 2005). LRT systems in the 21st century play much the same role as emerging light rail or streetcar networks did in the early 20th century, projecting a modern image of the city that is vibrant and ready for development and growth (Culver, 2017; King & Fischer, 2016). Culver has argued that the re-emergence of LRT systems in North America "reflects and is embedded in the general trajectory of neoliberal urbanization". (Culver, 2017, p. 22) This can be related to Kaika and Swyngedouw's concept of infrastructuralisation in cities, as modern LRT processes are constructed with the inherent belief that more infrastructure is needed for economic development.

What is a Public-Private Partnership?

The term 'public private partnership' covers a very broad section of arrangements. The National Council for Public-Private Partnerships (NCPPP) broadly defines a P3 as a "contractual agreement between a public agency (federal, state or local) and a private sector entity". However, they have been defined in a variety of ways across academic literature and in specific geographic contexts. The wide variety of definitions can be partially explained due to the variety of academic disciplines examining P3s including urban studies, geography, economics, policy studies, and sociology (G. Hodge & Greve, 2022). For instance, P3s can be seen as an intermediary delivery option between full privatisation and public delivery of services/infrastructure (Koppenjan, 2008). In Denmark specifically, P3s are more narrowly defined to only include forms of partnership which include an element of private finance towards the projects (Eldrup & Schutze, 2013). More specifically, this paper will examine P3s in the context of infrastructure, particularly transportation infrastructure, using the broader definition developed by the NCPPP.

P3s mark the reduced role of governments in designing and leading infrastructure projects. Historically, the conventional approach to infrastructure development necessitated governments taking responsibility to plan and design infrastructure works, even if this design and planning work was also done by contracted consultants/architects (Broadbent & Laughlin, 2003). For the construction, private sector contractors were hired to merely execute the designed infrastructure plans. However this model of traditional procurement was argued to increase project costs since the design and construction practices were separated, designers had no incentive to maximize cost/construction efficiencies of the designs, and construction companies were beholden to whatever designs had been provided to them with very little ability to deviate.

As categorized by Feigenbaum (2019), typically P3s in the transportation sector come in one of 3 forms, private provision, design, build, finance, operate, and maintain (DBFOM), and tendered service contracts.

Private Provision (also known as Concession Agreements)

In these arrangements, private organizations are contracted or rather allowed to privately finance, build, operate and maintain a transportation service which is able to

generate a profit for the private companies. In many of these situations, the private organization is allowed to operate the infrastructure for a set period through a lease before the infrastructure is turned over to the state agency. While popular in the early days of P3s, they are exceedingly rare in modern times, especially in the field of public transportation since only extremely dense and highly trafficked routes can be operated profitably with no government support (Mandri-Perrott, 2010). There is debate within literature on P3s whether or not private provision initiatives qualify as P3s (Broadbent & Laughlin, 2003; G. Hodge & Greve, 2013). The details of each individual arrangement are important, and most scholars agree that risk sharing is an important element that must be involved in order to distinguish private provision partnerships from simply privatization of services (Hunter, 2017).

A clear example of this privatization model can be seen in Canada through the Ontario government's 407 toll-highway. The project is entirely funded by the Ontario provincial government granting a consortium the ability to collect revenue from the highways use for a defined period in exchange for their construction and maintenance of the infrastructure for a set period of time – typically 30-years (Siemiatycki, 2015).

Design, Build, Finance, (Operate), and Maintain (DBFOM)

The second type of P3 involves a public sector procurement of private services to design, build, finance, operate and maintain the infrastructure for an agreed upon period for a set amount of time. This model requires private sector consortiums to finance a service or infrastructure as specified by a public sector purchaser in exchange for milestone payments during construction, and regular payments during operation for a long-term period of typically 30, but up to 60 years (Feigenbaum, 2019). Through these payments from the public sector partner, the private investors in the project can expect to generate profits from the project. Another common version of this type of P3 is a design, build, finance, and maintain (DBFM) agreement which has much of the same structure, however, the public agency would be responsible for operations of the line while the private partners would be responsible for maintain track infrastructure and providing vehicles for service (Feigenbaum, 2019).

Tendered Service

Lastly, tendered service arrangements typically exclusively involve the operation and maintenance of existing or newly constructed infrastructure that is owned by the public sector entity. In these arrangements, public agencies tender competitive processes in order to allow private sector entities to bid on the maintenance and operation of the infrastructure in exchange for regular payments from the public sector entity (Feigenbaum, 2019).

The below table, Figure 3 is adapted from KPMG Infrastructure Advisory, and provides a summary of the responsibilities of both private sector and public sector partners in each type of P3 arrangement compared to traditional procurement methods.

	Design	Construction	Operations	Maintenance	Finance	Ridership	Fare Collection
Design, Bid, Build - Traditional	●	●	●	●	●	●	●
Private Provision	●	●	●	●	●	●	●
Design, Build, Finance, Operate, Maintain	●	●	●	●	●	●	●
Tendered Service	●	●	●	●	●	●	● / ●

Legend: ● : Public Responsibility ● : Private Responsibility

Figure 3 *– Overview of responsibilities of private and public responsibilities in P3 arrangement. Author's adaptation from KPMG Infrastructure Advisory (2009).*

Beyond these three models of P3s, there is an emerging trend of identifying a number of modern political and financial arrangements, partnerships, and networks as 'public-private partnerships', whether or not they fall within the realm of P3s in the true sense of the word. This supports the idea that P3s are considered an indispensable feature of modern neoliberalized urban governance (Hodge & Greve, 2010).

History of Public–Private Partnerships

Originally P3s were conceived as mechanisms of privatization of government services starting in the late-1970s. They were billed as mechanisms to deliver infrastructure that was desired by the market but could not be justified due to public budget constraints (Siemiatycki, 2015). This gave rise to the private provision model of P3s in early years. However, this approach to infrastructure development has proven in many cases to be unpopular as user fees serve as explicit and daily reminders of the privatization of previously public services. Thus in most developed, western nations, contracts have evolved in recent years to focus less on the privatization of public infrastructure, but rather the incorporation of market principles into government contracts and public infrastructure and mobilizing private capital to support these projects (Orr & Kennedy, 2008).

The birth of the modern dominant P3 form can be traced back to the Private Financing Initiative (PFI) of the United Kingdom which was launched in 1992 (Broadbent & Laughlin, 2003). The PFI encouraged the incorporation of the design, building, financing, and operation (DBFO) into government contracts. The PFI differed from typical public sector procurement in that the public sector is tasked with specifying outputs, rather than the design of the service itself, and the private partner, motivated by additional profits if it is able to find efficiencies, is motivated to reduce costs in the construction and delivery of the service (Broadbent & Laughlin, 2003).

Underlying Logic of Public–Private Partnerships

The logic underpinning P3 is based on the idea that the incorporation of market mechanisms into the provision of public services provides higher quality services and

infrastructure at a lower cost that is able to be delivered on time (Bradford, 2003; van den Hurk & Hueskes, 2017). This is achieved through three main mechanisms which are most clearly identifiable in DBFOM P3 projects, but elements of the logic can be found throughout all P3s. Firstly, it's argued that governments are able to set policy objectives which meet the public interest at the outset of the tendering process, without specifying the technicalities of the project, leaving private firms (who are more knowledgeable and better placed) to identify the most cost-effective and innovative solutions, incentivized through the competitive tender (Bent Flyvbjerg et al., 2003; Siemiatycki, 2006).

Secondly, the incorporation of private capital into the development of the project leads to increased accountability for the private actors (Bent Flyvbjerg et al., 2003). Because private lenders and investors are putting their own capital at risk, and agreeing to deliver the agreed upon services and infrastructure over the long-term for a fixed price, they have an incentive to "identify, contractually allocate, and manage risks that they assume in P3 contracts" (Hussain & Siemiatycki, 2018, p. 1124). The P3 agreement thereby creates accountability between the public authority and the private sector partners through payment mechanisms in which the public sector can withhold payments or impose penalties (typically paid monthly during operation) in the event of a lack of performance based on previously agreed upon metrics (Weber et al., 2016). This differs from penalties in conventional projects because the private sector partners have significant capital at risk, incentivizing them to resolve issues more quickly since payments are not made until the project achieves performance standards (Hussain & Siemiatycki, 2018). The second benefit of this incorporation of private capital in a P3 over conventional procurement processes lies in the relationship between the investors and financiers of the project and the consortium of contractors performing the work. Because equity investors are repaid their capital from the monthly service and milestone payments from the public sector purchaser, they are incentivized to ensure all members of the consortium perform and work together to resolve issues since there is a shared debt obligation amongst all parties (Engel et al., 2014).

Lastly, the P3 transfers risk (by way of financial penalties and their own capital) to the party that is best able to manage it. By involving the private sector at all stages of the project including planning and design, project risks are able to be identified at very early stages and are incentivized to be accounted for by the public partner (Bent Flyvbjerg et al., 2003; Siemiatycki, 2006).

Criticism of Public-Private Partnerships

While in principle, P3s appear to be beneficial arrangements which allow for 'win-win' scenarios for both the public sector by finding efficiencies, and for the private sector by establishing opportunities for profit, critics of P3s have challenged a number of aspects of the underlying logic. Namely, critics have found that the mobilization of private capital can result in higher infrastructure costs for the public sector since the private sector rarely has access to capital at rates comparable to large public sector entities such as federal or regional governments (Hussain & Siemiatycki, 2018; Palcic et al., 2019; Shaoul et al., 2008; Siemiatycki, 2015). Furthermore, other critics argue that due to their highly technical nature, P3s contribute to a lack of democratic oversight of public projects and funds. The legal

complexities of P3s are extensive due to concerns regarding 'trade secrets' and confidential financial data of the stakeholders, this leads to difficulties in public sectors being able to transparently provide data to the public regarding the performance and operations of the private sector consortium (Forrer et al., 2010; Reig et al., 2021; Reynaers & Grimmelikhuijsen, 2015). Further, because of their complex legal structures, it's been asserted that this complexity leads to unnecessary cost increases due to the increased need for accounting and legal consultancies, especially in the event of agreement disputes (Verweij & van Meerkerk, 2021). The risk of incurring these excessive costs is therefore incorporated into the overall cost of the project, increasing overall costs.

Other, more critical scholars have examined the impacts of P3s beyond their ability to deliver on their purported benefits of lower cost and faster delivery. It's been found that P3s can lead to market monopolization by large construction conglomerates who are able to shoulder the significant financing costs associated with these infrastructure projects, and that state actors have little means of mitigating this impact since subcontracting is typically entirely conducted by the P3 consortium (Whiteside, 2021). Others have found that private entities have been able to generate significant profits off of P3 agreements, with some rates of return being as much as 50%, and with many of the companies generating this revenue being headquartered in global tax havens (Whiteside, 2021; Whitfield, 2016).

Assessing Public Private Partnership's 'Success'

Challenges of evaluation

There remains a lack of consensus on what constitutes 'good' performance of a P3 considering the wide range of factors which can be used to measure their success or failure over the lifetime of the project. Hodge and Greeve have developed a summary of both the explicit and implied benefits of P3s across the categories of financial, project delivery, cultural change, policy, governance and economic objectives (see figure 4 below, 2017, p. 8).

Objective	Objective/promise made by government
Financial	• Provides better value-for-money for taxpayers
	• Reduces pressure on public sector budgets
Project Delivery	• Provides better on-time delivery
	• Allows better on-budget delivery (reduce optimism bias, reduce strategic misrepresentation)
Cultural change	• Allows greater infrastructure (project) innovation
	• Encourages a more innovative public sector
Policy	• Enables provision of infrastructure without appearing to increase public sector borrowing
	• Supports businesses in difficult global market conditions (business assistance/subsidy)
	• Improves political feasibility to impose user fees
	• Infrastructure project risks managed away from government
	• Enables a crash-through approach to delivering public • infrastructure projects through the use of private contract law
Governance	• Be a symbol differentiating a progressive government, • and one which optimizes the use of markets and private sector capacity
	• Helps put infrastructure issues onto the public policy agenda
	• Improves business and financial market confidence
	• Improves government financial credentials
	• Improves accountability
	• Enables a less litigious approach to public infrastructure provision
	• Emphasizes project delivery over planning concerns
	• Eases the business of governing and helps control the public agenda
	• Enhances electoral prospects
Economic	• Strengthens broad, societal economic development
	• Encourages the development of a P3 construction and finance sector
	• Boosts export sales of professional P3 services abroad
	• Enables the full life-cycle costs of infrastructure to be provided

Figure 4 – Author's Adaptation from Hodge & Greve (2013), summarizing the purported benefits/objectives of P3 agreements.

A recurring challenge in assessing P3s beyond the range of benefits which could be assessed lies in the difficulty of establishing effective 'control groups' which a P3 project can be measured against seeing as P3s are very context specific to the local realities of a project (Sturup, 2017).

Results of evaluations

There is little doubt of P3's success as a policy concept, as evidenced by its global adoption and increasing popularity (Quiggin, 2019). However, despite over 30 years of P3 use and approaching 700 billion euros of projects constructed through P3 structured agreements, there is limited long-term evidence on whether P3s achieve their purported benefits due to the long-term nature of these agreements (Graeme Hodge & Greve, 2017; Hussain & Siemiatycki, 2018; Palcic et al., 2019). For the reviews which have occurred, the evidence supporting the benefits of P3s has been weak and mixed (Hare, 2013). In Canada specifically, while P3s have been found to be very effective in incentivizing the timely completion of projects, with regards to value for money, there is very little evidence that P3s reduce project costs compared to a 'conventional' fixed-price design-build contract (Boardman et al., 2016; Siemiatycki, 2015).

The Global Landscape of Public Private Partnerships

The widespread use of P3s began in the 1990s, after they were successfully used the PFI in the UK following Margaret Thatcher's neoliberalization of the UK state. From the UK, P3s have been adopted predominantly in a small number of developed countries, and are beginning to emerge in developing African nations as well as China (Siemiatycki, 2013). He asserts that this process of 'policy transfer' was achieved as countries with similar regulatory and legal climates adopted what was scene as an innovative policy in combination with changing economic structures across the world (Siemiatycki, 2013).

World Systems Theories of P3 Adoption

Taking a world systems approach, Quiggin argues that P3s are an clear example of neoliberalism and that rather than a process of policy transfer, P3s are a side-affect of broader trends of neoliberalism and have been adopted by the countries leading the embrace of neoliberal policies (2019). This world systems spread of P3 is also noted by Siemiatycki who leans on Sassen's global financialization theory and the rise of advanced producer services as also contributing to the global spread of P3s. As per Sassen, she posits that 'global cities' emerge as hubs of command and control over the global financial system due to the increasing complexity of the global economy (2001). These global cities such as London and New York have a significant concentration of 'advanced producer services' such as accountants, lawyers and consultants who serve the capitalists managing the global financial system (Sassen, 2001). Siemiatycki correlates that conventional global cities such as London have greater adoption of P3s. This lends to the argument that P3s spread through world systems rather than a simple 'policy transfer' which would not have seen the concentration in these specific global cities. Siemiatycki (2013) has created a framework to understand the factors leading to the adoption of P3s at the global level. He argues that a number of factors contribute to shaping the geographic distribution of transportation P3s globally including:

- Accommodating legal frameworks;
- P3 policy expertise networks;
- Supportive civil society;
- The presence/influence of consortium leaders;
- The presence/influence of professional service advisors; and
- The availability of infrastructure financiers.

Together, Siemiatycki argues that these factors have profoundly shaped the narrative regarding transportation infrastructure projects in many countries leading P3s to become the primary method of transportation infrastructure development.

Other Determinants of P3s

Other research has attempted to trace the rise of P3s in other specific national contexts. Liebe (2022) employed a mixed-methods approach to understand the adoption of P3s across Europe and the UK, examining both qualitative data such as ideological leanings of national governments and public sector efficiency, as well as quantitative economic indicators such as GDP, debt levels, and government capital. Focusing on the UK, France and Germany, the author found contradictory findings in most of the national contexts, with the

UK being a significant outlier. This indicated that the rise of P3s does not necessarily correlate to particular economic or political contexts, highlighting the need for further case specific research in order to explain the use of P3s. Liebe also highlighted the limitation to "understanding the policy process is the fact that in some jurisdictions, most certainly in our case studies, many decisions and discussions took place in small fora and back rooms", highlighting the need and difficulty of understanding specific local contexts which may produce P3s (Liebe, 2022, p. 295).

Brief Overview of Public–Private Partnerships in Canada

Canada has been an early adopter of P3 projects, adopting the model for infrastructure projects in the early 1990s. In Canada alone, as of 2018 "over 200 infrastructure projects are or have been developed through P3s", with most of them taking place on a provincial or municipal level (Warsen et al., 2020, p. 128). There have been two distinct waves of P3 model in Canada, with the first wave of projects leaned heavily on the private sector, resembling privatization type projects with the later projects maintaining greater public ownership of assets in the DBOM model (Siemiatycki, 2015; Warsen et al., 2020). In this first wave, governments sought to build infrastructure that was entirely funded by the private sectors, as opposed to the financing of the project which is more commonplace in the current era of P3 projects (Siemiatycki, 2015). Following this initial wave which experienced significant public backlash, a new wave of governments were elected in the late 2000s with a mandate for change, with the aim of leveraging the positive aspects of P3 arrangements while minimizing the rhetoric that they were privatizing public infrastructure (Cohn, 2008). The second wave of P3s in Canada emphasized their ability to provide 'value for money', in line with the global thinking of P3s at the time (Garvin & Bosso, 2008). This was an important distinction from first wave P3 agreements which emphasized the reduction of government expenditure on new infrastructure (Siemiatycki, 2015). This was about getting value for money on the infrastructure by having construction firms put financial capital at risk while building infrastructure that would otherwise be procured through conventional approaches, rather than building infrastructure that would be unlikely to be built otherwise.

Gaps in P3 Research

In 2018, Hodge and Greve published an article tracing the history of P3 literature and identified a series of research priorities based on the evolving understanding of P3s. They argue that early literature in the late 1990s and early 2000s focused largely on understanding the technical aspects of these arrangements, such as how they are governed, whether they provide value for money and effectively transfer risk, and whether they are a form of privatization. This basic understanding was important initially for policymakers, and it imagined P3s as an innovative mechanism to deliver infrastructure in the new millennia. However, it failed to understand P3s as part of a larger phenomenon. More recent research has begun to recognize P3s as part of the much broader shift towards neoliberal policies by governments across the world. The next wave of research on P3s occurring shortly after the 2008 financial crisis then shifted to understanding which factors led to success in P3s and how they can be optimized to best deliver on their purported benefits (G. Hodge & Greve, 2018, 2022). Overall, they identify the P3 research and literature evolving over time across 5

dimensions including scale, geography, objectives, academic disciplines, and base perceptions.

Research Dimension	Early	Recent
Scale	Project level focus	Governance level focus
Geography	National comparisons	International comparisons
Objective	Technical, formal and utilitarian objectives of projects	Socio-political, informal and unstated objectives
Academic discipline	Procurement and public works-oriented fields such as accounting and engineering	Geography, political science, linguistics, and psychology
Base Perception	Optimistic, positive, and exploratory	Skeptical and critical

Figure 5 – Authors adaptation from Hodge and Greve (2018) summarizing the evolution of P3 research.

In conclusion, Hodge and Greve propose that future research in the field of P3s "move past simply comparing the P3 experiences of countries or regions [...] and comparisons need to occur more alongside analyses of the relevant governance systems and market factors" (G. Hodge & Greve, 2018, p. 12) which is exactly what this thesis aims to achieve.

Theoretical and Conceptual Frameworks

Drawing from the literature review, this thesis shall primarily leverage two theoretical and conceptual frameworks in order to contextualize the results and answer the research questions. In the context of the first research question, "how do global and systemic factors influence the adoption and performance of transportation P3 arrangements?', results will be organized in accordance with the factors identified by Siemiatycki (2013). While this framework for understanding the factors which contribute to the adoption of P3s provides a fairly concrete criteria for identification, I have more specifically operationalized them for this thesis (see Figure 6 under the Methodology section for more details on the operationalization of this framework).

In addition to Siemiatycki (2013), I will be leveraging Stone's urban political order theoretical framework (2015) in order to answer the second research question. Marking the evolution from urban regime theory to the more modern realities of urban political orders, this framework works is an evolution of urban regime analysis and the two terms are used interchangeably. This framework works well when applied as a theoretical framework underpinning the more specific factors identified by Siemiatycki (2013). By understanding all of these specific factors in the context of a government made up as a coalition of a variety public and private actors, these frameworks are very complimentary. Siemiatycki's framework in many ways identifies the most relevant actors in the urban political order that may be necessary for a coalition to form and enact an agenda of delivering infrastructure through P3 agreements. With these complimentary theoretical frameworks, they will provide improved structure to the results section and help to contribute to understanding urban governance.

3 – Methodology

This chapter will describe the methodological approach to this thesis including identifying the epistemological approach to understanding the processes at play in the context of this research. This section will also provide a rationale and overview of the literature supporting the decision to pursue the respective the research design, data collection methods, as well as data analysis methods for this thesis. As identified in the literature review, although there is a significant number of qualitative and quantitative research into both public-private partnerships and their impact on urban governance, there is a notable absence of research which connects how systemic and market factors influence the adoption of P3s in the local context, and how these P3s can impact urban governance. Furthermore, over the course of this research project, while the first initial research question into the impacts of systemic factors on P3 procurement and impacts has remained, the second research question on how these factors impact urban regimes has been added following the collection of preliminary results. This chapter will also provide a narrative of the research process which has led me to this final point. This chapter will begin by situating how this case study research builds upon existing research into P3s. This section then situates the OLRT1 as an extreme, revelatory, and critical case that will help to address the research questions.

Epistemological and Ontological Approach

This research will fall under the critical realist paradigm. The literature review has demonstrated how the adoption and global popularity of P3s in the construction of urban infrastructure is a significant policy phenomenon which has real 'observable' effects in the real world in terms of the physical infrastructure is produced. Also apparent from the literature review is the difficulty in understanding the true dynamics at play which contribute to their adoption which are presently unknown and possibly unknowable aspects with regards to the 'why' a policy or in this case, infrastructure projects take the form that they do. The urban governance aspect similarly explores real world, observable decisions and debates that are made by council through public for a, however, they are all the product of potentially unknown forces shaping those decisions and debates through meetings, discussions and forces that are not presented in public fora. By applying grounded theory research to this case, this thesis is able to test the extent to which it is the viable to use both Siemiatycki (2013) framework for understanding the emergence of P3s by applying them to a local case. The political actions taken by both public and private actors are also framed in the context of urban regime theory, in order to understand the motivations and alliances of actors are shape/shaped by P3s.

Research Design

This research has undertaken a mixed-methods case study approach to answering the research questions. The majority of existing literature on P3 performance is performance has been conducted through single-case studies. In the interest of transparency, this thesis originally intended to be a multiple-case, two-tail designed study. The intent was to fill a noted gap in P3 research which compares P3 projects across similar projects undertaken through traditional public procurement methods (ie. Not using a P3 model) in different

countries. For this thesis, being produced in the context of an international European urban studies program, there was a clear initial desire to leverage the locales of the researcher to identify a European project which employed traditional procurement approaches, and simultaneously drawing upon the researcher's previous experience and knowledge, selecting a project from North America to contrast it with. However, during the research, the reasons which may contribute to a lack of international comparisons of individual P3 projects were made abundantly clear. Understanding each individual P3 project is a massive undertaking in itself, with a variety of specific conditions at the specific moment in time which influence even the most minute design choices, the technology employed, the procurement method, budgets, etc. Therefore, in order to adequately compare P3 projects, there must be a significant overlap in terms of the project type, timing of the construction, and the technologies adopted. Despite the significant amount of money invested in P3 projects annually, the money is often concentrated in a relatively small number of projects specific to a given technology or project type, which limits the variety of cases to select and subsequently compare. Furthermore, a case was identified which provided strong rationale for investigation as a single-case design.

The intention of this initial two-tail case design was to identify differences in the factors present (or absent) in each case which may explain why a P3 model was or was not chosen. A benefit of using a two-tailed research design involving multiple typical cases, would be that the generalizability of the results would be much more possible (Saldaña, 2011). However, as Yin notes, in conducting research it is important to understand what type of case is being researched, and that "you should not think that a case study's design cannot be modified by new information"(p. 62, 2013). Following a preliminary exploration of a multitude cases that were identified as potentially relevant for the research, the decision was made to opt for a single-case study for the reasons outlined in the section below. Case studies are a good method to test and expand the applicability of existing theoretical and conceptual frameworks, which this thesis aims to do with urban regime theory and Siemiatycki (2013) (Flyvbjerg, 2006). Despite the popularity of single case studies as a research design in research on P3s, it is clear through research agendas that field leaders see value in further in depth case studies into the local conditions of P3 projects framed by the global factors which shape them (G. Hodge & Greve, 2022).

Case Selection

Within the scope of this master's thesis, first and foremost, the language proficiency of the researcher restricted investigation of case cities to English speaking ones, given the complexity of the documents associated with P3 agreements. While cases in locales which did not use English as the primary language were initially explored, documentation proved extremely difficult to attain and comprehend. Furthermore, in order to investigate the impacts of P3s, the case city must have completed a project using a P3 model so that the performance of the system was able to be evaluated and impacts of the procurement model could be identified in the resulting product. Lastly, and most importantly, there was a need to access to a wide variety of documents and actors which would enable a comprehensive analysis of the case city in order to fulfill the goals of this research project.

Investigating P3s from an academic perspective can prove extremely challenging due to their complex nature combined with their tendency to be shrouded in secrecy due to confidentiality clauses between the public and private entities. The complexity of P3s means that there are a wide variety of actors which influence their adoption and impact the resulting product. These actors include municipal bureaucrats, private sector consortium employees, consultants, members of the public, and politicians, and the range and number of these actors also makes getting a precise overview of the entire P3 arrangement difficult. Inherent to a P3 is the sharing of risk between both public and private entities in the project, and as a result, in order to minimize legal risks between those parties, a significant extent of confidentiality is placed upon the agreements in order to minimize business risks. Therefore, it is essential to identify cases which provide the opportunity to access a wide variety of data to understand the true nature and forces shaping these relationships.

When the O-Train Confederation Line was initially selected as one of the proposed case-studies, it was understood to be a typical case in which a P3 was selected which was to be contrasted against another typical case in which a P3 was not selected in a different country. However, following further research into the selected case, it was quickly identified that the O-Train Confederation Line represented an extreme case of the drawbacks and benefits of the P3 model. Yin describes a typical case, as one which is identified as "a typical 'project' among many different projects" (2013, p. 48) which can "capture the circumstances and conditions of a [...] common place situation" (2013, p. 48). However he defines an extreme or unique case as one which "may be so rare that any single case is worth documenting and analyzing" (Yin, 2013, p. 47). While there have been a wide variety of P3 projects that have taken place in Canada to date, few have had evoked such a strong public and political reaction so as to warrant a public inquiry. This factor was a primary driver in that it would be difficult to find a case which could be identified as equivalent enough to be comparable. The circumstances surrounding the OLRT1 certainly justified its relevance as a research subject from its uniqueness in terms of the projects attention and outcomes.

Beyond the OLRT1s unique situation, another factor which prompted OLRT1 to be explored as a single case study was its revelatory potential. Yin identifies revelatory cases as a "situation [that] exists when an investigator has an opportunity to observe and analyze a phenomenon previously inaccessible to social science inquiry" (Yin, 2013, p. 48). With the public inquiry just beginning at the time of the research proposal for this thesis in summer 2022, it was clear that the evidence being produced by the OLRTCPI provided a unique opportunity. The legal powers provided to the OLRTCPI provided them the ability to compel far wider variety of respondents to provide witness testimonies through hearings which were publicized and transcribed. The OLRTCPI also compelled the public release of a plethora of documents that normally would have remained confidential under the terms of the P3 agreement, or normally would have not been subject to public. Combined, the amount of evidence available to be examined as a researcher provided an unprecedented opportunity to understand and observe the innerworkings and dynamics of municipal procurement processes in the context of a P3, as well as the dynamics between the City and the P3 consortium. For this reason, the case also demonstrates rationale for research as a critical case, defined as "a single case, meeting all of the conditions for testing the theory, can

confirm, challenge, or extend the theory." Given the data available in this case which is not normally available to researchers, this provided a case with enough data to obtain a comprehensive overview of all the factors which may have motivated the city to pursue a P3 for the OLRT1, and how those factors impacted it's results. This provided a good case to test and extend the use of Siemiatycki (2013) through a specific, comprehensive case which can "represent a significant contribution to knowledge and theory building [which can …] refocus future investigations in an entire field." (Yin, 2013, p. 47) Overall, the unique, critical and revelatory potential of the case combined provided compelling rational for the OLRT1 to be selected as the case for investigation in this thesis.

Qualitative techniques employed

Case studies can leverage both quantitative and qualitative data in order to examine the phenomena under investigation. The large majority of P3 research employs qualitative research (Hodge & Greve, 2022). Attempts have been made to employ both quantitative and qualitative approaches to P3 research, with (Liebe, 2022) spearheading the approach to leverage both types of data to explain the deployment of P3s in different national contexts. However, the results have provided conflicting results which do not fully explain the uptake of P3s. Qualitative approaches help to explain complex issues which are not easily quantified, which supported the use of qualitative data and analysis techniques in order to explore the research questions (Saldaña, 2011). Six main types of data which can be examined through cases studies includes direct observation, participant-observation, archival records, physical artifacts, interviews, and documentation (Becker et al., 2023). From these data sources, documentation and interviews were identified as the most relevant sources of data given time and resource limitations. This is in line with the vast majority of P3 research which in which researchers typically rely upon publicly available procurement documents and public records, which are supplemented through expert interviews.

Data Collection Methods

Document Collection

As stated before, the public inquiry provided a wealth of information that would not otherwise have been accessible in examining the OLRT1. The Commission received over 1.5 million documents in conducting their investigation, 30,000 of which were identified as relevant and conducted 90 formal witness interviews (Ottawa Light Rail Transit Commission, 2022, pp. 524, 525). Witness testimonies were all transcribed by the Commission and included hours worth of examination for each witness. Given the enormity of the data available to review, the *Report* of the Commission proved to be a key resource in providing a roadmap to the key documents and witness testimony which helped to explain decisions around procurement and as well as the dynamics of governance over the project. A large number of witness testimonies were briefly scanned for relevancy before selecting a smaller subset of testimonies which were analyzed in-depth and subsequently coded. Witness testimonies were reviewed first, and witness references to key documents and 'exhibits' presented during the inquiry also provided further guidance in selecting documents for examination and review. Other key documents made available through the Commission which may be relevant to my research were identified through the course of my own

interviews of actors involved in the OLRT1, who were able to confirm the importance of the identified documents or suggest other documents not part of the Commission's inquiry which could be helpful in providing further context or data.

A full list of the documents analyzed and the transcripts reviewed is included in Figures 7 and 8. In total, 14 transcripts were analyzed and coded, and 4 documents were analyzed. All of this documentation is publicly available via the archive of the Commission's website and can be accessed digitally. In addition to the documents that were reviewed, a wide variety of media coverage was reviewed in order to develop the case study context for this thesis. This media coverage proved invaluable in providing an overview of public discourse surrounding the project, as well as providing further contextual information which helped to inform the subsequently developed interview guide. Many references were made to media coverage in the course of the interviews and having a familiarity with the literature helped to better understand the insights provided by the interviews, and how the respondents positioned themselves in the context of this public discourse.

The documents reviewed in the context of this project were produced over the course of over a decade, and the testimony of individuals in the context of the public inquiry included individuals who had worked on the project from as early as the mid-2000s. By including actors and documentation that covered this wide time period, a clearer image of how factors evolved and impacted later stages of project completion and performance was invaluable and helped to improve the validity of the data by identifying the trends over time.

Semi-Structured Interviews

Rationale

While the document analysis provided a similar form of data to semi-structured interviews through the transcribed witness testimonies that were subject to examination and inquiry by Commission, City and consortium member lawyers, I conducted further semi-structured interviews with decision-makers. Semi-structured interviews were included as part of this research in order to understand whether decision-makers would provide different data or insights into the motivations of actors involved in a less formal setting. During the public inquiry, media scrutiny of the testimonies was extremely high, and while witnesses were compelled to testify under an oath to represent the facts truthfully, there remained the possibility that true motivations were not revealed publicly, or were intentionally obfuscated to avoid responsibility or potentially even criminal charges.

Another rationale for the use of semi-structured interviews is that they captured data following a significant event in the context of OLRT1. In September 2022, municipal elections were held in Ottawa and Mayor Jim Watson who had championed OLRT1 since his election as mayor in 2010 did not run for re-election. The election of mayoral successor Mark Sutcliffe could potentially demonstrate a shift in the urban politic order in the context of the City of Ottawa, and this new make-up of council could provide new perspectives on the OLRT1 project, contrasting approaches to managing the project under Jim Watson and Mark Sutcliffe. Furthermore, the final report of the OLRTCPI was released in November 2022. Immediately prior to the publication of the report, the general manager of OC Transpo, the

agency responsible for overseeing transit services in Ottawa retired, and City Manager, Steven Kanellakos resigned the day before the publication of the report. These were further signals of regime change within the public service in the City. The report also provided a wide range of recommendations on how to address the issues being experienced by OLRT1. With these new recommendations and leadership, there was also interesting data to be collected which could help to answer how the P3 impacted/was impacted by urban governance structures.

Recruitment

Interview requests were sent to both current and former members of Ottawa City Council's Transit Commission, the working group responsible for overseeing and managing the city's public transportation services including OC Transpo, and Para Transpo. Invitations were also sent to members of the Light Rail Transit Services sub-committee which oversees issues specific to the O-Train, however there is significant cross-over between the two committees. Interview requests were targeted at the political level in order to understand how market and systemic factors influenced their decision-making process. Councillors in theory would have a clear overview of the entirety of the project through staff briefings, and therefore would be able to respond to questions from a variety of topics. In the review of transcripts, interviews with politicians were often found to provide the most valuable data. Invitations were sent to members of both commissions for the 2018-2022 period of council, as well as the 2022-2026 term (n=12). This was mainly due to their knowledge of O-Train construction, operations and launch, as well as their ability to provide further insight into the governance of the system. Furthermore, it was difficult to obtain contact information for councillors beyond 2018 who were no longer active in politics. Recruitment of interview participants proved significantly more challenging than anticipated. Many of the respondents initially rejected or ignored invitations for interviews despite repeated follow-ups. This is likely due to the level of scrutiny that exists surrounding the O-Train, and a desire to not be implicated in the poor performance of the system. Furthermore, following the OLRT1 public inquiry, there was likely a level of fatigue amongst the invited respondents from being subjected to questioning regarding the O-Train. However, after establishing contact with one respondent, and following a successful interview, they offered to support recruitment of further respondents. This proved invaluable in building trust amongst further respondents that the integrity of the research could be trusted. Following this, a snowball recruitment method was employed to interview further respondents. In total n=5 interviews were conducted with a variety of past and present members of the Transit Commission.

Transit Commissioner respondents were selected via non-probability sampling of the 2018-present Transit Commissioners. While all Transit Commissioners were initially contacted, it was through the outreach of one Transit Commissioner that attained an additional 2 interviews. This may have contributed to bias in the sample of respondents interviewed. However, ultimately, respondents included those who were part of the governing coalition in the 2018-2022 term of council as well as those outside of the governing coalition, in order to understand the differing perspectives. Furthermore, the use of public inquiry transcripts also provided a less biased sample of respondents from transit commissioners.

Procedure

During the interviews, respondents were firstly informed of the nature of the research project, and how data would be treated, with an emphasis that all data would be anonymized to the extent possible and that no statements made during the interview would be directly attributed to them. Once verbal consent had been obtained, the interview recording started and proceeded with questions. Anonymity of the respondents to the semi-structured interviews was provided in order to provide a comfortable environment where they may feel more compelled to be candid about the dynamics at play. All interviews conducted during the public inquiry were recorded, transcribed and made public with the names of the witnesses attached to their statements. The hope was that by anonymity in a less formal environment through this thesis would elucidate potentially new or different data than was captured in the setting of the OLRT1 inquiry. Each respondent was assigned a pseudonym TC1 through TC5, indicating that the response came from a Transit Commissioner. Despite the promise of anonymizing the interviews through the use of pseudonyms, as well as the removal of any potential identifying information, all participants were advised that due to the small number of individuals who are on the Transit Commission, complete anonymity could not be guaranteed. It was apparent that only a small group of certain individuals would be privy to the level of detail provided in the interviews. This may have negatively impacted the truthfulness or level of candor that interview participants were willing to provide to provide in the interviews.

Five semi-structured interviews were conducted remotely with Transit Commissioners over Zoom in English. The online video-conferencing platform Zoom was used due to the researcher's distance from Ottawa, and to provide greater flexibility to Transit Commissioners to respond at a time most convenient to them. Each respondent was advised that interviews were intended to take thirty minutes. Three of the interviews took roughly thirty minutes, however two interviews were extended to over one hour due to the respondents' enthusiasm in the research subject and additional availability. A tailored interview guide was developed for each respondent, depending on a variety of factors including their position on the Transit Commission or LRT sub-committee, their length of tenure on city council, their position within or outside of the governing coalition in the 2018-2022 of council, as well as any previous experiences which may have informed their insights. For respondents who had been on council during the procurement and early construction of the LRT, there were more questions focused on the factors leading to procurement. For newer councillors who were not elected during the construction and procurement process, interview questions were focused on their perception of how various factors impacted system performance, and how they perceived the OLRT1 P3 had impacted/been impacted by urban governance factors. Interview questions were also adjusted as experience was gained in how respondents answered the initial questions. The interview started with simple questions such as their familiarity and degree of involvement with the OLRT1 in order to establish rapport, in addition to the initial introductions made prior to the beginning of the recordings. Interview questions then became increasingly more in depth and towards the end focused on more sensitive and less public topics such as how political relations may have impacted the project.

Interviews were recorded directly via Zoom and then transcribed leveraging computer assisted software. Interviews were initially transcribed using Microsoft Word Online's Transcription Function. Interview transcripts were then reviewed manually to correct punctuation and ensure accuracy against the audio recording of the interview. Once edited, the written transcripts were sent to the respondents for their final review of accuracy and to provide written approval of their testimony. Respondents were also provided the opportunity to redact or add any additional context to their responses during their review.

Operationalization of Concepts

The research question primarily deals with factors that impact the decision to use P3s to construct new public transport systems, and how those factors impacted the performance of the system. In particular, this research has relied on document/transcript analysis to identify the key factors which contributed to the adoption of a P3 in the selected case study, as well as how the P3 impacted urban governance. This research aims to be descriptive of both specific events and processes which contributed to the adoption of the P3 model, and the impacts that these factors may have had on the performance of the system and urban governance. As mentioned in the literature review, this thesis is testing Siemiatycki's (2013) framework's ability to explain the process of P3 adoption on a local level, and how these factors impact the system. The table below operationalizes Siemiatycki's framework for the purposes of coding. The operationalization of this framework is used to identify more consistent codes, as described in the following chapter, and to combine similar or overlapping codes which are difficult to attribute to any individual factor.

Siemiatycki (2013) Market/Systemic Factor	**Operationalization for coding**
Accommodating legal frameworks	Reference to legal requirements or enabling frameworks
The presence/influence of consortium leaders	Factors relating to the construction of the OLRT1; Factors relating to consortium members and their supplied products
P3 policy expertise networks	Influence of comparisons of projects at local, regional or national scale; Influence of government supporting procurement agencies
The availability/influence of infrastructure financiers	Factors relating to financing/payment schedule of OLRT1; Factors relating to the funders of OLRT1 (provincial and federal governments
The presence/influence of professional service advisors	Factors relating to outside consultants advising the City on the OLRT1
Supportive civil society	Factors relating to the opinions of politicians and bureaucrats on procurement approaches

Figure 6 – Author's operationalization of Siemiatycki (2013) for the purposes of coding.

Two other key concepts that were identified during the coding process were that of transparency and accountability. These two themes are very intertwined, and it is difficult to discretely identify how they influence urban governance practices independently. It is near impossible to have government accountability without transparency, and vice versa. However, transparency and accountability were identified distinctly in testimonies and by interview respondents, and they have been represented as such within the results section. I

have adopted the following definition of 'transparency' in the context of municipal government from the International City County Management Association (ICMA) who define transparency as:

> "the principle of allowing those affected by administrative decisions to know about the resulting facts and figures (e.g., the city budget) and about the process that resulted in those decisions. Transparent governance means that government officials act openly, with citizens' knowledge of the decisions the officials are making." (2017)

This definition aligns closely with how the concept was discussed in regards to the OLRT1 testimonies and interview respondents.

In contrast, accountability can be understood as "answerability for performance" (Romzek, 2000, p. 22). As opposed to transparency, accountability involves the acceptance of responsibility for decisions taken, or more broadly the outcomes arising from the decisions that have been taken. In the context of the public sector, accountability normally has a hierarchy of relationships comprised of politicians being accountable to the electorate, government officials accountable to the politicians, and government employees being accountable to their government officials (Mulgan, 2000; Wu et al., 2016).

Data Analysis Methods

Leveraging the theoretical framework developed by Siemiatycki, there was a clear framework which existed in advance to guide the coding process. I used a two-pass coding process, in which in the first pass I quickly scanned documents, identifying the most relevant factors within Siemiatycki's framework. Once relevant testimonies and documents were identified, they were reviewed and coded originally using a simple highlighting process according to themes. However, as the body of evidence grew, the existing documents that were coded were recoded using MaxQDA, a qualitative analysis software that supports the management of data and its analysis through qualitative coding. This was due to the length of each individual document being analyzed, which often exceeded two-hundred pages, and made identifying all relevant elements of a theme across documents very difficult. Following the initial review, it was apparent that beyond the market and systemic factors that were initially identified as the focus point of the research, that urban governance was a significant element in explaining the adoption and subsequent performance of the OLRT1 P3, at which point, the second research question was added and the research focus adjusted. During the second-pass of the coding process, inductive coding was used to identify sub-themes identified within Siemiatycki's framework were identified. In this inductive coding pass, additional factors were identified regarding how the P3 impacted/was impacted by urban governance. Furthermore, in this pass, indicators of urban political orders, were also identified. Once interviews were transcribed, they were coded using the same process undertaken during the document analysis, in which a deductive coding pass using the factors from Siemiatycki (2013) framework were assigned, as well as the subcategories and indicators of urban political orders.

4 – Case Introduction

In this section, I will introduce the case of the Ottawa LRT system, identifying some of the key elements that provide context as to how the project emerged, and how the system has performed in its four years. Leveraging the OLRTCPI's official timeline of events published in the *Report of the Ottawa Light Rail Transit Public Inquiry* (2022), supplemented by the Sarah Trick's comprehensive article *Ottawa's Colossal LRT Debacle: A brief-ish history* (2022), along with other media articles, this section will provide context into OLRT Confederation line operations as well as provide intext into the political context of Ottawa's management of the system. While this is not intended to be an entirely comprehensive overview of every key event that has occurred during the OLRT1's lifespan, it will provide context into why the project was undertaken and how it has evolved over the years.

Overview of Ottawa Public Transportation Prior to LRT

Ottawa is the capital city of Canada, situated at the confluence of the Rideau and Ottawa Rivers, directly across the river from the neighbouring city of Gatineau, Quebec. With a population of over 1 million people that is quickly growing, the city has seen increased demand on its mobility infrastructure over the past decades (Government of Canada, 2022). The city was a visionary in building its first major public transport works by designing the Transitway, a bus rapid transit (BRT) system which travelled east—west across the city, through the downtown core (Gow, 1998). The system was a true BRT system with grade-

separation for the majority of the alignment, and large stations which allowed for quick loading and unloading of passengers. Over the years, the Transitway functioned extremely effectively, acting as a prime example for the benefits of BRT systems, showing that when built properly, BRT systems were able to provide significant transportation capacity while keeping upfront infrastructure costs relatively low (Transportation Research Board, 2003).

When constructed however, the BRT system was built with an inherent 'Achilles heel'. That being the portion running through the downtown core of Ottawa. When constructed, the Transitway system was always built with the understanding that it would have a limited maximum capacity due to the bottleneck of the downtown core. For the downtown section, the Transitway was forced to run through the city core at-grade, running in dedicated bus lanes alongside other traffic. While this did allow for high-capacity flows, it remained the lowest capacity portion of the Transitway despite having some of the greatest passenger flows in the entire system (Transportation Research Board, 2003). In the system's conception, a grade-separated BRT had been considered, but was ultimately abandoned due to the high-cost relative to the overall construction of the BRT system, and due to concerns regarding tunnel ventilation with a large number of diesel buses running at peak times. Double-decker buses were introduced into OC Transpo's fleet as a stop gap solution to increase capacity, allowing for a greater number of buses to load/unload at the downtown stations. However, due to the harsh climate of Ottawa with regular adverse winter weather conditions, the additional weight of double decked buses caused issues with braking in inclement weather. Two high-profile accidents in 2013 and 2019 involving the double-decker buses which killed three and six people respectively, injuring dozens more limited their feasibility in playing a greater role in expanding the systems capacity (CBS News, 2013; Payne et al., 2019).

North-South LRT Proposal

With the BRT system's limitations in mind, as the population of Ottawa continued to grow, it was apparent that a greater capacity public transport solution was needed to increase capacity to move passengers through the city's downtown core. Thus, planning began for a new LRT line. Initially, the city looked to leverage it's existing infrastructure. What began in 2003 as a pilot project, the City of Ottawa had acquired a north—south running railroad track that had previously been used as a freight railway line. The line is just 1km west of the city's downtown core and runs south, passing through one of the city's two major university campuses. While this track had been acquired and used for public transport purposes for a number of years, the plan was to build from this existing right of way, and extend the line east, through the downtown core (CBC News, 2006). The upgrade would leverage existing right of ways, but still required a complete revamp of the track infrastructure to convert the line from a typical mainline railway track to LRT, and would require expansion of the trench and tunnels two allow for double tracking and bidirectional traffic along the entire alignment (CBC News, 2006). This plan was approved by council in 2006, however, shortly following the projects approval, and the awarding of the construction contract, the proposed system it became a significant election issue. Mayoral candidate Larry O'Brien vehemently opposed the project, arguing that the proposed surface level alignment through the downtown core would soon lead to continued capacity issues (CBC News, 2006). He pledged to cancel the line if elected and in 2006, he cancelled the agreement in principle

with the construction consortium that had been approved to build the line. This cancellation came at a significant cost to taxpayers as the city was forced to pay out an early termination penalty after having secured the consortium only months prior to the cancellation (CBC News, 2007).

East-West LRT Conception and Procurement (Confederation Line)

Following the line's cancellation, under the direction of the newly elected mayor, Larry O'Brien, a new plan was developed for the east-west LRT that would connect with the existing north-south line. In 2008, Ottawa City Council approved a plan to build an east-west rail system with a downtown tunnel for $1.9B (CBC News, 2008). By 2010, an updated budget for the project estimated the LRT would cost $2.1B plus or minus 25%, and a Request for Qualification was issued to begin screening potential constructors for the system (Ottawa Light Rail Transit Commission, 2022). By 2010, another mayoral election occurred in Ottawa, and Larry O'Brien was defeated by former Ottawa Mayor, Jim Watson. Jim Watson ran on a campaign which identified the construction of the LRT system his key priority for his term as Mayor since the project had been under development for nearly a decade at this point, still without any firm commitments for the line to be built. He promised to accelerate the projects' timeline for construction and made the project a key project (Galloway, 2010). By 2011, the new preliminary plan for the LRT was passed, and had secured funding commitments from both the federal and provincial governments (Transport Canada, 2013). In October 2011, the City announced that the contract for the LRT received 3 qualified consortium bidders for the project, and by the end of December 2012, following negotiations and evaluation of the three bidders' proposals, the consortium of Rideau Transit Group (RTG) emerged as the recommended bid, and the project was approved by city council with the project agreement signed shortly after in early 2013 (Crupi, 2012; Transport Canada, 2013). RTG was a consortium comprised primarily of 3 firms, ACS Infrastructure Canada, EllisDon, and SNC-Lavalin, with key subcontractors including Alstom, and Thales for the provision of vehicles and signalling solutions. The project agreement set May 24, 2018, as the agreed upon Revenue Service Availability (RSA) date which meant when the LRT would be open for public ridership (Transport Canada, 2013).

Confederation Line LRT Construction and Disruption

By spring 2013, the RTG consortium had begun construction work in earnest on the project, with tunnelling starting by the end of the year. Shortly after the beginning of tunnelling, in February 2014, a sinkhole appeared along the route of the LRT directly above tunnelling works (Willing, 2014). Nobody was injured, and it was later determined that the sinkhole appeared because tunnelling works had encountered an unknown, preexisting construction shaft which caused a partial cave in. In 2016, a second, and substantially larger sinkhole appeared directly above an underground LRT station that was being excavated, collapsing the road for nearly an entire city block. No one was injured in the incident, however, the sinkhole swallowed a vehicle that had been parked on the road where the sinkhole appeared (CBC News, 2016). The root cause analysis determined that the tunnelling had disturbed the ground, causing a city watermain to break, flushing the material into the excavated station below (Pritchard, 2016). This event was significant for several reasons.

Firstly, the City had been very aware of the precarious ground conditions in the area. During the procurement process, the City insisted on including the transfer of the entire geotechnical risk in the P3 agreement to the winning consortium (Ottawa Light Rail Transit Commission, 2022). This meant that any delays due to ground conditions such as the sinkhole would be covered under the agreement, and the consortium would bear all of the related costs and any penalties for delays due to such an incident. In this case, despite some legal challenges from RTG, the City settled the case outside of court, with RTG paying an undisclosed amount to the City for their costs incurred as a result of the sinkhole (Burke, 2017).

Construction quickly resumed following the sinkhole incident, with RTG maintaining that delivery schedules were not affected by the incident. However, as May 24, 2018 approached, the original delivery date specified in the project agreement, it became apparent that RTG would not achieve substantial completion (Chianello, 2018a). While the City maintained that they would bear no costs for this delay, and that RTG would be incentivized to maintain the original delivery date, it was later revealed that RTG was able to set a new delivery date with no penalty as long as they informed the City ahead of the original delivery date (Chianello, 2018b). RTG then committed to delivering the system by November 2, 2018. In anticipation of the opening of the LRT system, the City adjusted bus routes across the city in September 2018 to align with the new expected passenger flows at the LRT stations (Osman, 2018). Following the September route adjustments, it becomes increasingly clear that the system will not be completed in time for November 2, with many stations still under construction, yet the new route system was only optimized under the assumption of LRT service. However, the route changes stayed in place due to the technical complexity of route changes, which occur only semi-annually, and the City expecting the system to be completed imminently if not in time for the November 2, 2018 opening date (Chianello, 2018c). When the second delivery date was missed, RTG incurs a $1M penalty, and sets March 31, 2019 as the new delivery date (CTV News Ottawa, 2018).

On March 6, 2019, the city council voted in a 19-3 decision to support a $4.66B expansion of the LRT system, known as Stage 2 which would be constructed through P3s in the same fashion as Stage 1. While this thesis focuses solely on Stage 1 of the LRT, this milestone is still relevant and provides context on the dynamics of city council at the time Stage 1 was being constructed and commissioned. City councillors were given one week by city staff to review documents before the nearly $5 billion-dollar financial commitment to support the expansion of a system that had yet to open to the public or be thoroughly tested. (Porter, 2019a) A request to provide councillors with an extra two weeks to review the extensive technical documentation associated with the bids was denied because the bids would expire in days, forcing the city to restart the procurement process, and this would likely lead to significantly higher costs to the city because construction costs had increased since the bids had been submitted. Councillors felt paralyzed because while they were unable to fully understand the implications of their vote due to the limited amount of time to review documents, many remained fearful of voting against the expansion, since Stage 1 of the LRT was always intended as the initial phase of converting the city's BRT corridor, and very limited benefits for residents would be seen without Stage 2 of the system (Chianello,

2019a). One councillor who voted against the expansion, expressed frustration at the fact that "[no one from the City] can sit in front of us and answer a simple question: Did all of the bidders meet the technical requirement?"(Chianello, 2019a). Following the vote, it was later revealed that the winning bidder did not meet the required technical threshold, and that their bid had included a significant number of technical errors, as significant as confusing whether the system would operate with diesel trains or would be powered by electricity via an overhead cantenary system (Chianello, 2019b). The bid had been allowed to proceed through an exception in the procurement process that allowed the team reviewing the bids to usher through bids based on their discretion if they met the city's needs in other ways, in this case, because it was by far the cheapest bid (Chianello, 2019b).

On March 31, 2019, the third handover date was missed, and a new informal date of June 30, 2019 was set and subsequently missed, however, due to the informality of the June date, no new penalty was issued (Porter, 2019b). By July 27th, the LRT system was deemed to be 'substantially complete' which enabled the city to begin testing the system prior to final acceptance and commissioning of the system (CBC News, 2019). The testing procedure called for 12 days of continuous running of trains at normal service levels, with benchmarks for performance and issues along the line. It became clear to senior city officials and Mayor Watson's political staff that the testing was not performing well, with OC Transpo General Manager John Manconi writing in a private email that was not released until an access to information request revealed it months later "we can all agree things are not going well… The vehicles require attention more often than they should" (as quoted in Chianello, 2021b). It was later revealed through access to information requests that the testing procedures for the system were modified during testing in order to allow the system to be certified for launch. While the original testing criteria required the trains to run continuously for 12 days meeting certain performance thresholds, it was decided that 12 inconsecutive days were sufficient (Chianello, 2021b). The system was then accepted for formal handover and public service shortly after this testing phase with the problems encountered during testing and the modification of the criteria not being provided to councillors or the public.

Confederation Line Launch

The City launched the system on September 14, 2019 to much fanfare, as evidenced by Figures 1 and 2. The initial roll-out was relatively smooth, however, the system launched with only 13 running trains despite the contract agreement requiring 15 running trains, along with two backups. Due to maintenance issues, RTM was unable to provide the full fleet of trains (Chianello, 2019c). Following the phase-in period which included parallel bus service along the line in the event of service issues, on October 5, 2019 the parallel bus service was removed, and full, regular passenger flows were introduced to the system. On October 8, 2019 issues with the LRT become apparent as a passenger holding open one of the doors on the LRT caused the train to malfunction, halting the entire LRT system for over an hour before the train could be reset and repaired. These incidents which were referred to as "door faults" continued daily and the Mayor Watson threatened to fine and publicly shame users caught holding the doors with security camera footage due to the drastic impact this had on the system (CBC News, 2019).

Over the winter, a wide variety of power issues and switch issues occurred due to Ottawa's harsh winter climate. In one case, an overhead cable snapped and forced the LRT to close for over 18 hours (CTV News Ottawa, 2020). On January 21, 2020, only 8 trains were available to run the line, severely reducing train frequency after it was discovered that many trains had flattened wheels (White, 2020). On February 14, 2020, four trains were damaged by debris on the track that was later revealed to be a part that fell off of one train (Chianello, 2020a). Over the course of the following week, as trains were repaired, many more failed from a wide variety of issues, reducing the operational fleet to only 7 trains out of a contracted 15 (The Canadian Press, 2020).

By March 9, 2020, the city issued a notice of default to RTG which argued that they are unable to provide the contracted service and served as the first step in the process of severing the 30-year operations and maintenance agreement, and required them to develop a plan to address the contract defaults (Chianello, 2020b). However, as a result of the COVID-19 pandemic, the City significantly reduced service frequencies, providing an opportunity for RTM to catch up on train maintenance. On June 21, 2020, RTM took the opportunity of reduced ridership to close the line for an entire week of maintenance. Days after the line was reopened, in early-July 2020, cracked wheels discovered on the trains reduced the available fleet to only 7 trains (Pringle, 2022). The Government of Canada's federal Transportation Safety Board (TSB) launched an investigation into the cause of the cracked wheels which posed a severe risk of derailment (Crupi, 2020). The system slowly regained fleet availability as the trains are repaired and brought back into service, despite regular service issues throughout the winter, no new substantial issues are identified (Ottawa Light Rail Transit Commission, 2022).

On August 8, 2021 a train derailed with no passengers aboard on its way to a maintenance yard as a result of a loose axle, causing the line to close entirely for a week, and TSB to investigate. TSB finds 10 trains with the same axle issue which require urgent repairs before being returned to service (Chianello, 2021a; Lord, 2021). On September 19, 2021 a train partially derailed, this time with passengers. Nobody is injured in the incident; however, the entire line was taken out of service for nearly two months (54 days) as OC Transpo, RTM and TSB investigate and addressed the axle issues (Woods, 2021). It was revealed that the train derailed because the maintenance order which arose from the August 8 derailment was not completed on the train in question. The work order form was lost, and maintenance staff falsified the work order using one from another train to certify it back into service (CBC News, 2021b). During this time, John Manconi, the General Manager of OC Transpo, retired to join STV Consulting, one of the firms hired by the City during the construction of the LRT to advise on technical and operational oversight of RTG/RTM (Woods, 2023). After a motion calling for the City to request it's own judicial inquiry into the issues plaguing the LRT is defeated at council, the Province of Ontario then announced that they will conduct a public inquiry into the LRT system (Pritchard, 2021).

In September 2022, new municipal elections were held for all city councillors and for the mayoral position. Incumbent Mayor Jim Watson announced that he would not run for re-election following his 12 years as mayor, and instead endorsed mayoral candidate Mark

Sutcliffe (Pringle, 2022). After the election, in November 2022, the OLRTCPI releases their final report into OLRT1. The day before the report is released, City Manager Steve Kanellakos announces his resignation (Chianello, 2022). The report condemns many aspects of the OLRT1 project, especially the project's procurement, mismanagement, and the failure for officials to act in the public interest. The report makes over 100 recommendations on how to prevent and resolve some of the failures which occurred during the OLRT1 procurement, construction and launch, which Mayor Sutcliffe has agreed to implement.

At the current time of writing, in August 2023, following two weeks of intermittent system shutdowns to perform track maintenance, the Confederation Line has been shutdown for 12 days and counting, and is not estimated to resume service for at least 25 days (CBC News, 2023). On July 17th, a train undergoing maintenance and inspections displayed indications of loose bearings in the wheel hub assembly, the same issue which contributed to previous derailments of the LRT. OC Transpo management was immediately notified by maintenance staff and the entire system was immediately halted and evacuated so that all trains could be brought in to undergo inspection (Skura, 2023). 6 trains were found to have indications of similar issues, prompting OC Transpo to close the line indefinitely until further maintenance could be completed on the trains and track infrastructure, and a new inspection and maintenance regime could be undertaken. When the system re-opens, OC Transpo plans to only run 8 single-car trains compared to the normal service level of 13 double-car trains so that they are able to limit the number of kilometers each train runs. This is because axles and wheel bearings will now be replaced on the trains significantly more frequently (every 60,000 kilometers), a timely maintenance procedure that could not be maintained sustainably if more cars were run on the track (CBC News, 2023; Skura, 2023). OC Transpo also promised that through an agreement with Alstom and RTG, a new axle hub assembly will be designed and deployed on all trains to permanently address the premature wearing of the assembly which has been responsible for the derailments. This fix is estimated to be implemented over the course of the next 18 to 24 months as the new part must be designed, engineered, prototyped and tested before being deployed on all of the Alstom Citadis vehicles (Skura, 2023). OC Transpo officials have labelled this as the 'final fix' which will assure reliable operations for the LRT, however, the fix does not address issues related to winter operations which have caused repeated failures of the system.

The OLRT in Summary

As discussed in the methodology section, while the O-Train system does at the surface level appear to be a failed system due to the problems described above, at the same time, overall, the system demonstrates many of the positives of a P3. For instance, the ability to transfer all geotechnical risk to the consortium and the subsequent sinkholes at Rideau station showed tremendous foresight from the City of Ottawa, and is one of the key examples of why P3s come so highly touted. The City was not responsible for the costs associated with the sinkholes in the construction of the LRT, and despite the delay it caused to the construction, the City of Ottawa was still compensated for the delay. Albeit, $1M penalties for each missed deadline in the context of a $2.1B contract are not especially significant. Furthermore, in spite of all of the issues that the system has experienced with the trains, the City of Ottawa is not financially responsible for the costs of the fixes. Obviously,

there are still clear downsides to issues being present in the system in the first place in terms of ridership and citizen satisfaction with transportation, it remains apparent that this could have been costly for the City of Ottawa had they not transferred risk to the private partners. The very apparent demonstration of both the positive and negative aspects of the partnership are important to provide a balanced examination of the impacts of global market factors on P3 arrangements.

The other aspect of the OLRT1 project which is apparent from this timeline of events is that there has been significant political involvement in the project since it's inception. The political involvement has had many drastic impacts on the system as evidenced by the cancellation of the first line, the process to approve stage 2 of the LRT, and the adjustment of testing criteria by senior political staff. This project therefore also presents an interesting case to examine the impacts of P3 arrangements on urban governance, considering the involvement of the politicians of the project to date. Both the positive and negative impacts of the P3 arrangement on the project to date, combined with the clear political nature of this project are part of what make Stage 1 of the O-Train Confederation Line such a fascinating and fruitful case to examine in the context this thesis.

5 – Results

This chapter will examine how the systemic factors theorized by Siemiatycki (2013) have impacted the development of the P3 in the Ottawa LRT system and furthermore, will examine how urban regimes have formed and impacted the P3 arrangement and it's performance. The chapter shall be organized to firstly examine how the market factors theorized by Siemiatycki have impacted the project, beginning with professional advisory services, P3 networks of expertise, infrastructure financiers, consortia leaders, and finally accommodating legal frameworks. However, to understand the management of the project following procurement, it is necessary to understand how the P3 contributed to the creation of urban regimes, and how those urban regimes then impacted and were reinforced by the system and its performance. The following section of the results then examines how these factors led to the creation of an urban political order in Ottawa, how the P3 enabled them to retain power and ultimately, how and why the urban political order has now shifted and what implications this has for the OLRT1.

The results sections draws upon the transcripts of testimony of 14 stakeholders who were interviewed through the OLRTCPI, as well as documents made available through the OLRTCPI. The tables below (Figure 7 and Figure 8) summarize the documents and transcripts that were analyzed and briefly describes their relationship/relevancy to the project. The section also leverages data collected through the author's own semi-structured interviews with Transit Commission members. Excerpts from OLRTCPI transcripts and documents are cited appropriately, given that the transcripts and documents are all available publicly, however, data from the semi-structured interviews is anonymized and not available publicly. A sample transcript has been included as Appendix A. Further anonymized interview transcripts can be made available upon request to the author.

Name	Affiliation	Role as Relates to OLRT
John Jensen	The City of Ottawa	City's LRT project lead until 2017.
Brian Guest	Boxfish Infrastructure Group	Consultant brought on by the City to support OLRT project, 2010-2021
Marian Simulik	The City of Ottawa	City Treasurer, 2007-2019
Sarah Wright-Gilbert	The City of Ottawa, Transportation Committee	Citizen Transit Commissioner
Steven Kanellakos	The City of Ottawa	City Manager, Top bureaucratic position in the city of Ottawa, 2016-2022.
John Manconi	The City of Ottawa	General Manager, OC Transpo 2012-2021
Shawn Menard	The City of Ottawa - Councillor	Ottawa City Councillor, Capital Ward (Ward 17), 2018-present, Transit Commissioner 2022-present.
Michael Morgan	The City of Ottawa	Director, Rail Implementation Office
Kent Kirkpatrick	The City of Ottawa	City Manager, top bureaucratic position in the City of Ottawa, 2012-2016
Jim Watson	The City of Ottawa - Mayor	Mayor, Political project champion
Nancy Schepers	The City of Ottawa	Deputy City Manager (2012-2014) & Executive Advisor (2014-2015)
Bing Bing Wang	Deloitte	Consultant for Deloitte Consultation to City on LRT, 2010-present
Remo Bucci	Deloitte	Project lead for Deloitte Consultation to the City on LRT, 2010-present
Greg Barstow	STV Inc.	Project Lead for STV Inc.

Figure 7 – Summary of OLRTCPI testimonies reviewed.

Name	Author	Relevance
Final Report of the Ottawa Light Rail Transit Commission Public Inquiry	OLRTCPI	Summary of all findings of the OLRTCPI
Exhibit 206 – Whats App Chat Log 16 July 2019 to 31 December 2019	OLRTCPI, Misc.	Chat log created between, Ottawa Mayor, Jim Watson, Ottawa Mayor's Chief of Staff, Serge Arpin, Ottawa Mayor's aide Matheiu Gravel, OC Transpo GM John Manconi, Ottawa City Manager, Steve Kanellakos, Transit Commission Chair Allen Hubley,
Exhibit 083 – Letter from Deloitte to City of Ottawa 29 June 2011	Deloitte & Touche LLP.	Summary of report on procurement options for OLRT1

Figure 8 – Summary of OLRTCPI documents reviewed.

5.1.1 – Professional Service Advisors

Siemiatycki (2013) argues that due to the complexity of P3 agreements, the presence of professional service advisors who are able to support governments in overseeing and administering P3 agreements are essential. In this section I will examine how professional service advisors contributed to the decision to pursue a P3 in the case of Ottawa, and furthermore, what role those professional service advisors played in impacting the system.

Neoliberalization of the state

There was near consensus amongst the interviews and transcripts reviewed that there was a need for consultants due to the lack of internal capacity to administer the project regarding both the lack of experience in administering projects of this scale, and the lack of actual administrative capacity. For instance, the City's LRT Project lead, testified that his team required external advisors to oversee the project during the construction, such as Capital Transit Partners:

> "KATE McGRANN: And into – so Capital Transit Partners was managing oversight of the project on behalf of the City?
>
> JOHN JENSEN: Well, they were part of the Project Team who were responsible for ensuring that ProjectCo was doing what it was supposed to be doing, so reviewing the design submissions, and that is a standard process for any project that the owner's engineer is the owner's representative, just as BLG would be the legal representative, to oversee the contract through design and construction to make sure that design submissions are reviewed, that ProjectCo is meeting the standards that they should be meeting, giving compliance feedback." (Jensen, 2022, p. 108 lines 11-25)

Furthermore, even following completion of the construction, the City still required external expertise to simply oversee the administration of the project agreement. The need to hire a company or team to oversee the contract, was justified because the City argued that it didn't have the expertise themselves:

> "JOHN JENSEN: And then the other component that needed to happen was at some point before opening, the City needed to hire some sort of a leader responsible for overseeing the contract and either a team of people with experience under that leader or contracted out to have some sort of a firm come in and do audits and help them with contract.
>
> […]
>
> KATE McGRANN: Were there any project management plans that had been finalized for the oversight of the construction phase by the time you left?
>
> JOHN JENSEN: Well, again, I'll go back to Capital Transit Partners with the Chief Engineer were responsible for oversight of the project through construction up to, you know, system opening and hand-over." (Jensen, 2022, pp. 110–111 lines 19-25, 1-3 and 7-19)

Consistently, one of the biggest factors leading to the selection of a P3 for the construction of the LRT system was a 2010 report that was commissioned by the city to have Deloitte

assess the variety of options that existed to construct the LRT system. Ultimately, Deloitte recommended the use of a DBFM model by the City to build the system (Deloitte & Touche LLP, 2011). While this report did assess all options, including conventional procurement models, the report ultimately highlighted the benefits of the DBFM model, without a significant consideration of the risks which existed in selecting this model. For instance, the letter provided to the City outlining the results of the report did not any potential risks or drawbacks associated with the procurement model, highlighting only the benefits of the model in addressing deficiencies should issues arise (Deloitte & Touche LLP, 2011).

Misaligned Incentives

Due to the reliance by the City on external expertise in order to administer the P3 agreements, there exists some misaligned incentives which reward professional service advisors to support P3 agreements, since professional service advisory companies continue to benefit from continued patronage from the city to oversee them. Deloitte, who authored the report advising on a P3 agreement for the city benefitted from the city pursuing a P3 agreement. A Deloitte consultant who helped author the report for the city recommending a P3 for the LRT system testified that "Deloitte has been retained to provide quarterly performance reports." (Wang, 2022, p. 11 lines 7-12). This continued relationship with those who recommend the P3 system which they continue to benefit from may lead consulting firms to not fully consider the potential negative implications of a P3 to the city because they stand to benefit from their adoption.

Another example of misaligned benefits for consultants also exists with the technical experts who have overseen the project. STV was hired as a consultant for the City to oversee the construction work of the LRT during Stage 1. They predominantly advised the City on whether progress milestones had actually been met, in order to facilitate payments to the P3 consortium. Once the project began to deviate from its original schedule, they also played a key role in advising the City on whether the amended schedule was realistic, and whether their proposed solutions to issues that arose during construction were workable. Despite the evident flaws in the system that became clear following the launch of the LRT, STV was originally brought forward to identify solutions to the problems facing the system. As city councillor Shawn Menard testified:

> "SHAWN MENARD: […] after the first derailment occurred, after the wheel flats started to occur, there likely should have been much more introspection by the City. And, you know, major concern in terms of bringing people in to find out what's going on. […] the City Manager was going to bring in the original folks who had been there from day one, I think it was STV. […]
>
> KATE McGRANN: With respect to the City's initial decision to retain STV to do some review work, and then the subsequent decision to have TRA do that work, why was it important to you that STV not be brought on for that retainer?
>
> SHAWN MENARD: It would be – to me, it would be the same thing as bringing Boxfish back in, or having Deloitte come back in at this stage. They had been there from the very get-go, and had a lot to own up to in how the system performs.

Ultimately another firm was ultimately selected to oversee the safety review of the LRT system following public outcry and news coverage that the original engineering firm who advised on the construction and acceptance of the LRT system would oversee it's remediation (TC1, CBC News, 2021a). However, the initial reaction of the City to hire the firm that had previously advised them on the oversight of the project highlights the misalignment of incentives. The engineering firm which was not able to advise the City on how to mitigate the problems before acceptance of the LRT was rewarded by gaining additional contracts to do this work after the fact. It was argued by interview respondents that this misalignment of incentives for consultants does not incentivize quality work to be produced.

Lack of experience of consultants

Despite the apparent lack of expertise that existed internally within the city bureaucracy, there was also a clear lack of expertise within the consultants that were retained to advise on the project. This lack of experience of the consultants, combined with the city's inexperience in being able to navigate the P3 arrangement may have inadvertently led the city to adopt recommendations with unknown implications. For instance, a key consultant that was retained to advise on the project, Boxfish Infrastructure Group's Brian Guest was consistently brought forward as a key voice providing advice with regards to the cities P3 arrangement. Despite his key role in advising on the system, his testimony clearly demonstrates his limited experience prior to working on the LRT project. Guest was asked what experience he had working on rail systems:

> "KATE McGRANN: Prior to your work on Stage I of Ottawa's light rail transit system, did you have any rail experience other than the work that you did on the Trillium line?
>
> BRIAN GUEST: No. I have lots of public policy experience, but I did the first LRT in Ottawa." (Guest, 2022, p. 13 lines 12-23)

Furthermore, when asked about his experience regarding P3 projects:

> "KATE MCGRANN: And prior to your work on Stage I of Ottawa's light rail transit system, could you just describe your P3 experience.
>
> BRIAN GUEST: My P3 experience. I didn't have experience." (Guest, 2022, p. 15 lines 3-8)

Despite Guest's self-proclaimed lack of experience in these areas, he was regarded by key individuals as an authority on how to manage the P3 relationship. For instance, city manager, Steven Kanellakos testified that "He [Guest] was contracted at the time, before me, but he was contracted based on his area of expertise on P3s, on design-build-finance-maintain, on that whole realm of knowledge and expertise" (Kanellakos, 2022, p. 69 lines 18-25). This overestimation of the consultants' abilities was part of a pattern of overestimation of the outside experts understanding of the projects.

With the City lacking the necessary expertise internally to manage the P3 agreement, the expertise of consultants brought on to assist the project was essential for the City to be able to help manage the consortium of multi-national corporations who had participated hundreds of P3 projects. With the experience of these outside actors lacking, and the City

overestimating their abilities, the City was severely out matched in terms of being able to effectively oversee the project.

Personal Relationships

It was also raised that personal relationships may have led to the increased use of consultancies which would have been incentivized by the P3. TC1 highlighted the personal nature of relationships which may have influenced the use of consultants in the development of the P3 contract and the subsequent management of the relationships between the City and the consultancies, highlighting that Brian Guest, the inexperienced consultant identified in the section above was married to the Director of Policy for the Jim Watson, the former Mayor of the City of Ottawa, and she was also hired to be the Director of Policy for Mayor Mark Sutcliffe. TC1 also noted that the former General Manager of OC Transpo, John Manconi, who had retained STV to complete the safety audit following their work on the initial project had been hired by the firm as a consultant shortly following his retirement. This was raised as a potential reason that certain firms continued to be used in the project, despite a lack of experience or clear value for money.

5.1.2 – P3 Networks of Expertise

A key factor perpetuating P3's identified by Siemiatycki are the "new agencies and institutions that have been formed to promote the merits of P3s, build technical expertise among public sector partners, and support the expansion of this particular model of project delivery" (2013, p. 1261). Underpinning the creation of these organizations dedicated to supporting P3 projects through procurement is the acceptance of the P3 policy consensus that they are the default best way to deliver large infrastructure projects.

Infrastructure Ontario

In the case of the Ottawa LRT, Infrastructure Ontario is a provincial agency funded by user fees of municipalities leveraging their expertise to procure and administer P3s for public infrastructure. Infrastructure Ontario supported the City in it's procurement of a P3 following the initial recommendation from the Deloitte report. While not a professional service advisor because the agency is created by the provincial government, due to their funding structure, Infrastructure Ontario in some ways has the same misaligned incentives as consulting firms. Being an expert on P3s and only continuing to exist based on the demand for support in procuring P3s, it's easy to see how the agency could be incentivized to over emphasize the benefits of P3s, or recommend them in situations that were not necessary. Key executives believed that Infrastructure Ontario was pushing the city to pursue a P3 model as a best practice, and required strong arguments against in order to pursue an alternative model of construction. For instance, Deputy City Manager, Nancy Schepers testified:

> "NANCY SCHEPERS: […] from their [Infrastructure Ontario's] perspective, using P3s was a best practice. And they didn't want to necessarily – and I'm speaking for them – but to necessarily say, "Thou shall use a P3." So, instead, they said, you know, "You shall explore about whether to use a P3." And so that then advanced the – when you're talking about large-scale projects, making sure that the best practices were used in the delivery of those projects." (Schepers, 2022, p. 42 lines 16-25)

However, not all of the project executives shared the same belief that Infrastructure Ontario specifically directed the city to pursue a P3, for instance John Jensen, the LRT project lead testified:

> "KATE McGRANN: And was there a requirement from either the Provincial or Federal Government that this project proceed by way of a P3 or an AFP?
>
> JOHN JENSEN: I don't recall a requirement being put forward. We certainly went through a full selection process. I do recall that when we brought Infrastructure Ontario on board, their typical position is that long-term finance needs to be involved, but I don't recall – I don't recall being directed to do a P3." (Jensen, 2022, pp. 67–68 lines 18-25 & 1-9)

Ultimately, the combination of the incentive of Infrastructure Ontario to incentivize P3s in order to continue to gain access to funding indicates this may have been a factor pushing Ottawa towards a P3 procurement.

Local Policy Success/Transfer

Beyond the involvement of Infrastructure Ontario, other P3 projects in Canada also influenced decision makers. With other municipalities in Canada successfully using P3s to deliver their infrastructure projects, there was an obvious desire to build off of their success. For those examining the Ottawa LRT and deciding on how the system should be procured, there were clear parallels drawn between the LRT line that was desired in Ottawa, and a recently completed metro line in Vancouver. Deloitte consultant Remo Bucci who co-authored the report that Ottawa relied upon to begin pursuing a P3 model testified:

> "REMO BUCCI: And then in 2010, the Canada Line had just come onboard in Vancouver. Very successful execution of that project. Design, build, finance, operate, maintain. It was fairly analogous. I mean, it didn't go to the airport, but it was a fully-automated train control system with a tunnel and guideways. So the City was interested in what the mode of delivery needed to be, number one, and if we think about that, it's like what's the mix, design, build, operate, maintain. What's the City's internal capability? How do you bring all the pieces of light rail together recognizing that it was going to be, like, a fully computer-based train control system, so it's going to be complex from that end." (Bucci, 2022, p. 13 lines 7-23)

This temptation to draw comparisons of success for projects that leveraged the P3 model has risks. It is clear from the Ottawa experience alone that the results of one project cannot be generalized, and that the specific management of each project plays a key role in its success or failure, rather than being inherent in the procurement model.

Two of the interview respondents within the governing coalition argued that they could not imagine a project of this nature being built without a P3 model (TC3, TC4). These respondents went on to cite the other public transport projects they knew across Canada which were employing a P3 model. When prompted to think of how city infrastructure and specifically Ottawa's public transport network, such as the Transitway had been developed in developed in the past, the respondents conceded that it would be possible to continue

building projects this way, and that they would have appreciated the additional degree of control that these more conventional procurement methods may have provided given the difficult nature of influencing the consortium. One interview respondent, TC1, however argued that the widespread adoption of P3 projects at all levels of government, regardless of the performance of the projects indicated the degree to which there was extensive local networks committed to the P3 model.

5.1.3 – Infrastructure Financiers

Infrastructure financiers as conceived by Siemiatycki (2013) normally refer to the investment funds that provide the P3 consortia with private capital to fund the delivery of the project. He argues that the presence of these funds in a specific geographic context is an important driver of the P3 model. In the case of Ottawa, the reduced presence of these investment funds in the Canadian market had marked impacts on the design and ultimate outcomes of the LRT project. This section also expands upon Siemiatycki's conception of infrastructure financiers to include infrastructure funders, in this case being the provincial and federal governments.

Reduced Presence of Investment Funds & Milestone Payments

Because of the 2008 financial crisis, European banks that were financing P3 projects in Canada left the market. Prior to the financial crisis, the primary mode of financing infrastructure was pay at performance, meaning that no payments were provided until substantial completion and performance could be proven. Due to fewer institutional investors, there was a need to change the financing mechanism to progress payments because nobody was willing to finance the entire construction of the project. As Deloitte consultant, Remo Bucci testified:

> "REMO BUCCI: This is pre-2008 Infrastructure Ontario: we're not going to pay you anything until substantial completion because the concept of AFP is you pay at performance. You only pay when you delivered something to me, […] and I can measure it against a set of standards, […]. So up to 2008, that's 100 percent. Credit crisis comes. All the European banks were present in Canada at the time that […] provided that private financing are gone. You need to now change the market. It goes more to institutional investors in Canada because our banks don't lend long-term, so life insurance companies, your commercial -- your sort of variance of pension funds that are -- become, you know, what we call the institutional investment stream. And that also means […] you're not going to have the project company finance 100 percent of the project or construction anymore, okay, because there's no capacity to do that given the number of projects that are done, and the costs are […] becoming quite prohibitive versus the private financing. (Bucci, 2022, p. 38 lines 7-24)

This led to the adoption of milestone finance payments which paid out to the P3 consortium once certain milestones had been achieved during the construction period. However this created an incentive to "chase the milestone" (Bucci, 2022, p. 39 line 25) because you need to achieve the milestone to get payment. This was problematic because it removed flexibility for

the P3 consortium to adjust work schedules because they had agreed to the order in which they would pursue the milestone payments at the outset of the project (Bucci, 2022, p. 40). These milestone payments then led to additional difficulty and transaction costs as both the City and the P3 consortium had to leverage resources, typically consultants, to justify why certain milestones had been or had not been met. Milestone payments add additional difficulty because there is a lack of clarity of what each milestone actually entails.

Government funding

While conception of infrastructure financiers by Siemiatycki (2013) does not typically include governments as a "financier" of the project, the testimony from the LRT inquiry has indicated that the governments and the associated amounts they committed to the project significantly impacted the project. Firstly, the fixed funding that was committed by the federal and provincial governments created premature budgets for the project. Secondly, the funding by other levels of government bore certain expectations for how it would produce value for money.

Many testimonies indicated that cost estimates for the LRT, placing the cost of the project at $1.8B were premature and based off of an environmental assessment that was not designed to be a fixed budget (Kanellakos, 2022; Manconi, 2022; Schepers, 2022; Watson, 2022). However, despite the primitiveness of this cost estimate, it was quickly championed as the project cost by the new Mayor, Jim Watson. Once elected, Watson quickly secured funding agreements for the project with the Government of Ontario and the Government of Canada, promising an equal cost share of all three levels of government. The fixed nature of these funding agreements provided a need for the City to ensure that those costs did not change because the City is the least able to bear the increased costs due to their limited taxation powers in comparison to the provincial and federal governments. This is in contrast to other LRT project going on in the province such as the Finch-West LRT or the Hurontario or Eglinton Crosstown LRT which are funded 100% by the province, allowing them more flexibility in changing costs since there is only one party responsible for funding (Bucci, 2022, pp. 30–31 Lines 19-25 & 1-4). The risk of cost escalations that would have to be born by the City provided a strong incentive to pursue a P3 model of construction, because of the fixed-cost nature of the agreements.

Beyond the creation of specific organizations responsible for promoting the P3 model, such as Infrastructure Ontario, the implied expectations of the other levels of government who provided the funding also weighed on the City's decision on how to procure the LRT system:

> "REMO BUCCI: What's the right mode of --what is operations by the way? Is that driving the train? Is that dispatching? Is that train control? And then also what about the financial construct, and this is where the funding comes in. What would be the view of Canada and Ontario? We're going to, you know, provide -- well, not quite a third but at least 600 million each to the project costs." (Bucci, 2022, p. 20 lines 10-15)

The expectations of the other levels of government on how their money should be spent also perpetuated the policy success and transfer as these levels of government gained experience

with other P3 projects, and began to view them as the ideal model for building infrastructure.

5.1.4 – Supportive Civil Society & P3 Policy Consensus

Supportive civil society as conceived by Siemiatycki (2013) refers to the organizations that have been established to promote P3s, as well as the organizations which have opposed them, such as trade unions of municipal workers (p.1262). In the context of this thesis, the "supportive civil society" concept has been adapted to take into account the more individual views of politicians and bureaucrats involved in the project. However, there was significant overlap with the local networks of expertise section which made extracting a discrete section difficult.

Misunderstandings and lack of awareness.

This theme was largely intertwined and overlaps with other indicators, such as Networks of Expertise, specifically local policy success transfer. Most Transit Commissioners, prior to their involvement in the OLRT1 or their time on the Transit Commission were unaware of what P3s were. However, as previously discussed, many of the TCs stated that they could not imagine another way of constructing such a large infrastructure project. This view was predominant amongst TCs within the governing coalition. That being said, a number of the Transit Commissioners demonstrated a fundamental misunderstanding of how P3s operate, and their underlying rationale which makes them desirable. As TC3 tried to explain their rationale for supporting a P3 model for the development of the OLRT1, they argued:

> "The city […] has a big project but doesn't have the skill set. […] So the business sector says, 'Well we can help you out.' However, the city can also help the business partner out because the City has a borrowing capability, right? […] a big business says "well, because you can get a good lending rate and you will be favored for lending, you could do the borrowing part for this major infrastructure project." (TC3, 2023).

While it is true that municipal governments can often secure better interest rates than corporations due to their wide variety of assets and income streams, this is fundamentally not how DBFM P3s work. Under a typical DBFM P3 arrangement, institutional investors lend money to the consortium for the construction of the project, which municipalities then pay through milestone payments as certain construction milestones are completed, as outlined above in chapter 3. The key feature of a P3 arrangement is that private capital is at risk, which incentivizes the consortium to build good quality infrastructure so that they will recoup the costs through milestone payments and the monthly service payments for the length of the agreement by achieving performance standards. By demonstrating fundamental misunderstandings of how P3s operate, Councillors risk falling into untrue biases regarding procurement approaches. In the semi-structured interview, when TC3 was prompted that the OLRT1 was in fact financed through private capital, the respondent admitted their limited knowledge of OLRT1, but then referred to other projects within the city employing a different type of P3 model which did leverage public financing for the construction of the project. This further demonstrates the complexity of discussing P3s. By

not having a clear definition of what exactly a P3 is, and even with clear definitions, the term P3 covers a very wide range of agreements between public and private actors, and civil society must be fully aware and engaged of these different types of models and the differing rationales and advantages for each.

Other TCs admitted their limited knowledge of P3s as a barrier to engaging in the topic of procurement until the issues with OLRT1 became apparent. As TC1 admitted:

> "when I became a Transit Commissioner, […], I didn't know what a public-private partnership was […] I had an idea [that] there is taxpayer money and then there is private money. But what I didn't understand was the implications and the impacts of that private money and how […] do they make money off of this?" (TC1, 2023).

By not having sufficient information about the operation of the procurement model it is clear that Transit Commissioners must heavily rely on the opinions of municipal staff and in turn, the consultants contracted to provide advice to the City on procurement. Without better comprehension of the advantages, disadvantages and rationale for a certain procurement model, it is difficult to mount significant political opposition or engage in the topic of procurement constructively.

Infrastructure Ontario, also brought on to support the assessment of options for delivery of the project were regarded as having experience in delivering LRT P3s, despite this being the first time that the organization was building so-called, "horizontal" infrastructure using the P3 agreement they used in Ottawa's LRT system (Kirkpatrick, 2022, p. 36). City staff also testified that they felt compelled to defer to recommendations from consultants and Infrastructure Ontario in light of their inexperience, feeling unable to suggest viable alternatives or to rebut the findings in the Deloitte report recommending a P3 approach (Schepers, 2022).

5.1.5 – Consortia Leaders

Siemiatycki (2013) identifies consortia leaders as the constructors and partners which lead P3s from the private sector. He identifies the concentration of large, multinational corporations which concentrate the delivery of P3 projects, and the influence of these firms in the regions where P3s are widespread as being a key factor supporting the development of P3s. In the context of this thesis, factors related to the construction of the project and products provided by RTG consortium members were coded under "consortia leaders". It is true that 3 of these large firms who commonly participate in P3 projects, came together to lead the OLRT1 P3: SNC-Lavalin, ACS Infrastructure, and EllisDon, thus supporting the notion that these multinational corporations are an important prerequisite for the adoption of P3s. While no one specifically mentioned the influence of any of the particular consortia leaders as being a factor, one of the key partners within RTG, Alstom, and the trains they supplied were clearly one of the most problematic elements of the LRT system, as such I will briefly explain the selection of the train (the Citadis Spirit) in Ottawa's LRT for further context.

Alstom Citadis Spirit

The most significant problems in the context of OLRT1 have originated with the vehicles. The Alstom Citadis Spirit vehicles have frequently been criticized for their poor performance and their unproven design. In the inquiry, it was identified that Alstom vehicles were only included in the RTG consortium after another vehicle provider had been disqualified due to the vehicles unproven design in North American conditions. The consortia leaders were forced to scramble to identify a new, eligible vehicle supplier partner in order to preserve the integrity of their bid. The Citadis vehicle had been deployed in many winter climates across Europe, and the Citadis Spirit vehicle was meant to be a North American adaptation of the European model, which would be deployed for the first time in Ottawa. Despite the first of its type deployment, the City accepted this model as service tested. Furthermore, as testified by a consultant for the project, the Alstom Citadis Spirit were being pushed to the absolute limits of LRT technology, in ways in which they (or few other LRT vehicles) previously had achieved (Barstow, 2022). The implementation of this Citadis Spirit vehicle in unproven ultimately proved to be a poor decision which has led to many of the problems seen in the LRT system to date.

5.1.6 – Supportive Legal Framework

This theme was not significantly raised or discussed in the transcripts or interviews. While it was established that Infrastructure Ontario, the government body advising the City on the procurement had a strong preference for P3s, there was no mention of clear legal requirements which forced the City to pursue one procurement approach over the other. From the proliferation of other P3 projects across the province of Ontario since the 1990s, it's clear that the province has a supportive framework which enables the operation of P3s, but does not require it. While this is certainly an important enabling factor contributing to the adoption of P3s in a jurisdiction, or a significant barrier if the enabling framework were not in place, it was not raised as a clear factor in comparison to the five others analyzed above.

5.2 – Urban Governance

Following the examination of the market and systemic factors identified by Siemiatycki in the previous section of the chapter, this section explores the urban governance of Ottawa City Council, with an aim to understanding how the P3 arrangement may have impacted/been impacted by the urban governance of the OLRT1 project. The results in this section largely arise from the semi-structured interviews that were conducted for this thesis, supported by the document analysis that was conducted in the first section of the results and the media documents reviewed in developing the case profile. This section will begin by examining the political dynamics occurring within council under former Mayor Watson. It will then examine how elements of the OLRT1 P3 impacted the governance under this regime. This section will then examine how those dynamics have since shifted under the new governance regime headed by Mayor Sutcliffe following his election in September 2022. The section will conclude by comparing the dynamics under the two different mayors and attempting to understand how they may have impacted the performance of OLRT1.

Formation of a political coalition under Mayor Watson

In the transcripts, documents and interviews analyzed nearly all respondents demonstrated a clear acknowledgement of the political dynamics of the Ottawa city council under former Mayor Jim Watson. In Canada, municipal politics do not involve political parties. Rather, candidates run on an independent basis in city subdivisions referred to as 'wards'. In Ottawa, during a municipal election, there are a total of 24 councillors elected, each representing their local ward, as well as a mayor, elected independently. Respondents recognized how the running of candidates without political parties and separate to the mayoral election poses challenges to the governance of a city following the election. The mayor is elected with a mandate that is separate from each of the mandates of the 24 councillors, and in a city as geographically diverse as Ottawa, with wards comprised of solely urban, suburban, rural areas, as well as wards which have combinations of all 3. All of the respondents acknowledged that regional interests play a significant role in shaping the priorities of councillors. As a result of these varying interests, there is a need for mayors and councillor to form some level of structure so as to develop a stable coalition that is able to consistently and coherently work together to pass and achieve their political aims. This is particularly important for the mayor, who is seen as the figurehead of city council, and who will largely be held accountable for actions or lack thereof by the Council.

At the outset of Mayor Jim Watson's term as Mayor in 2010, he aligned himself primarily with suburban councillors, falling to the centre-right of the political spectrum (TC3). This coalition of councillors became colloquially known as the "Watson Club" (TC1, 2023), forming a tight voting bloc which controlled the majority of decisions on Council. Given Watson's focus on the LRT in his campaign against the incumbent Mayor, Larry O'Brien, the TC2 identified the OLRT1 as Watson's "legacy project" which was "very much his pet" (2023). Thus, the LRT became a key issue for councillors to defend and manage since so much of Watson's political reputation hinged on the project. TC1 noted that the LRT was the key project that brought together the coalition, stating that "These councillors, they hooked on to Jim Watson and his legacy [...] the LRT being at the forefront. [...] They now have to continue to protect that legacy, because it's their legacy now too" (TC1, 2023). Nearly all respondents were in agreement that maintaining this voting bloc was a key political strategy in order to deliver upon the mayor's campaign commitments (TC1, TC2, TC3, TC5).

During the 2010 election campaign in which Watson ran against incumbent Mayor O'Brien, he committed to constructing the project by for $2.1B. Some respondents argued that this campaign promise was significant, in that it established very early on the projected cost for the system, creating a benchmark for the public to assess Watson's ability to deliver upon (TC2, TC4). This $2.1B price tag was identified as a significant issue in the construction of OLRT1. Watson identified the $2.1B cost for OLRT1 through a preliminary engineering report that had been prepared for council previously which estimated the cost of his proposed alignment (Watson, 2022). A wide variety of testimony expressed significant concerns and difficulties posed by this projected cost which was intended to be "a rough estimate, plus or minus 25% either way" (TC2, 2023). Some experts even testified that they were concerned if the City would receive any bids at the $2.1B price considering the degree of risk they were asking bidders to accept, and had identified additional mitigation strategies

to improve the attractiveness of the project to bidders by providing a variety of risk options to bidders that ranged from the City taking the most risk, to the bidder taking all of the risk (Jensen, 2022).

During the 12 years that Watson served as mayor, his bloc held strong in the vast majority of votes. Many of the respondents agreed that the same coalition passed the large majority of motions presented to council. Watson's coalition typically included 16 councillors in opposition to 9 councillors. This created a dynamic on city council in which "people [were] truly working against one another, for all kinds of reasons" (TC3, 2023). One respondent argued that a pivotal vote which demonstrated the strength of Watson's coalition was seen in a motion brought to council in 2021 to request the Province of Ontario to lead a judicial inquiry into OLRT1. They stated that the vote "was indicative of, [...] the previous mayor's power to keep councillors at arm's length from the project so that even if they wanted to have the oversight and get the answers from city staff that they wanted, if the mayor felt that that was counter to what he was trying to accomplish, he was able to ensure that" (TC5, 2023).

Private sector actors in the governing coalition

On the private side of politics laid the consortium that was involved in building operating and maintaining the OLRT, as well as the many consultants recruited by the City in order to advise the City on the oversight of the project. Inherent to the structure of the P3, each of these companies came together to build the project with a clear profit motive (TC5). As demonstrated in the previous section examining the factors contributing to the decision to pursue a P3, consultants also benefitted from the P3 arrangement in their continued involvement in the project throughout its development (Barstow, 2022; Bucci, 2022; Guest, 2022; Wang, 2022). The development of OLRT1 posed a substantial project for the private construction firms within the consortium, with subsequent phases of the OLRT likely to generate even further construction. There were additional aligning interests in the private sector coalition beyond the pursuit of profit in this particular project, such as Alstom, which hoped that OLRT1 would serve as a the first project to demonstrate the abilities of its Alstom Citadis Spirit light rail vehicles (LRVs), a variant of LRV that had been adapted from the European models of the Citadis LRV specifically for the North American market (Barstow, 2022). The shared goal between Watson and his coalition to develop a successful OLRT1, with Watson aiming to develop an LRT system that served the needs of Ottawa residents at a fixed price, and private partners and consultants aiming to support the development of the project with a focus on generating profit for their shareholders.

Diverging interests in the coalition

Inquiry transcripts and interviews revealed that as problems with the system began to emerge as early as the construction phase, tensions began to cause dealignment of the interests of the public and private parties in the coalition. Many transcripts testified that an adversarial relationship began to emerge between the City and RTG as construction delays accumulated. This led to the relationship between the two parties increasingly being governed contractually, rather than collaboratively. As TC2 described "the city and RTG were both very intent on sticking to the contract to the 'T'" (TC2, 2023). This adversarial approach

then led the city to place great demands upon RTG to deliver service exactly as described within the contract. The clearest point identifying the divergence of interests between the City and RTG is when the city began it's notification of default proceedings against RTG. Many Transit Commissioners found that this notification of default led to further backlash from RTG, who could not be compelled to provide greater resources to address system issues, or provide more information that would support system operations and management from the City.

Transparency

A lack of transparency is frequency cited as one of the negative impacts of P3 arrangements. Some councillors argued that some features of the P3 arrangement were leveraged as a way to avoid transparency and scrutiny from council in order to protect the City from facing backlash as a result of the system's poor performance. As TC2 stated "You had the former mayor, the general manager of public transit, John Manconi, and the former city manager who deliberately obfuscated information from City Council and therefore the public" (TC2, 2023). Respondents outside of the governing coalition identified the lack of transparency as being a preservation mechanism of the governing coalition, who sought to mitigate the political impacts of the inadequate performance of the LRT system (TC1, TC2, TC5).

One instance in which the control of information was apparent was during the testing phase of OLRT1, where it was alleged by some respondents that the Watson coalition intentionally controlled and did not provide information to other councillors. This tactic was most evident during the testing phase of the OLRT1, prior to the city's acceptance of the system and subsequent commissioning. A private group chat was made involving the chair of the Transit Commission at the time, Allen Hubley, OC Transpo General Manager John Manconi, City Manager Steve Kanellakos, as well as other OLRT1 project consultants. In the chat, there was clear acknowledgement that the trial running was not performing well, and that trains were breaking down far more often than should be expected for revenue service. Reviewing the logs of a private WhatsApp group chat, Mayor Watson's political staffers and Kanellakos encouraged general manager John Manconi to not submit a memo to councillors updating them on the progress of the trial running until it was complete. Documentation indicated that in order for the LRT to pass the period, previously agreed upon performance measures were adjusted to be less lenient. Councillors were not informed of these adjustments, and were instead informed that the system had successfully completed it's trial running period.

As TC1 stated "It's a lot of political 'cover your a**.'" (2023), finding that councillors intentionally attempted to keep issues with the LRT system out of public knowledge and discourse. Some councillors within the governing coalition even challenged the degree to which transparency was necessary for such a complex project. As TC3 argued "[The project] gets so complex […] you want to make the argument things need to be transparent. And so for sure… and then, why though? Why? Is it because that's good practice and you absolutely need to be transparent?" (2023). Other councillors agreed that the complexity of the project agreement may have proved more of a barrier to public transparency than the actual

practice of proactively sharing details of OLRT1's performance (TC4, TC5). While this public lack of transparency was apparent, there was many different interpretations of transparency in the context of in camera sessions for council.

In Camera Sessions

In camera sessions allow portions of city council proceedings to be held privately, with the discussions, motions and documentation prepared for them kept confidential from the public. These sessions allow councillors to openly air their concerns to their colleagues, as well as municipal staff with confidence that their concerns will not be brought forward publicly. Typically, in camera sessions are justified when the content discussed contains matters which involve legal advice to the City, or information which could potentially compromise the City's legal defence. Other in camera justifications include the discussion of confidential business information regarding the administration of the P3 agreement. All of the transit commissioners interviewed mentioned the significance of these in camera sessions, but with varying interpretations of how they impacted the governance of the OLRT1. Some councillors, both inside and outside of the voting coalition, felt as though these sessions revealed the true nature and concerns of councillors beyond the 'party line' that was broadcast publicly by members of Watson's voting coalition (TC1, TC2, TC3, TC5). They felt that within these sessions, members were able to demand answers to questions that would otherwise compromise the public support of the City's leadership team. Some councillors felt as though these sessions were a barrier to improving the public's perception of transparency, alleging that councillors (notably outside of the governing coalition) would publicly state that they did not receive particular information that was discussed in camera, when as TC3 described:

> "[Information] was also shared in camera, right. But in camera meetings […] you're not allowed to talk about what goes on in in camera meetings [...] So one side could come out and easily say, "Oh yeah, we didn't hear about it. We didn't know. We didn't know." and the other side couldn't come out and say "Yes you did and look at these minutes and let's look at this report" and all the rest of it because it was all confidential in camera minutes. So the perception by the community wasn't even really what happened." (TC3, 2023)

Transparency of the private actors

Beyond the lack of transparency for public actors in the project, RTG also contributed to a lack of transparency in the project as a result of the adversarial relationship that emerged between the City and RTG. As TC2 described:

> "the city demanded so much out of RTG that the relationship between the two partners became so poisoned and so toxic that neither side were really work really willing to work together outside of the contract. So […] there was no willingness to share information unless they were compelled to legally. So that's what kind of led to a lot of the transparency issues." (2023)

As the tensions between the City and RTG grew, many transit commissioners argued that withholding information became a way for the consortium to retaliate against the City for

what they saw as overly burdensome oversight and requirements to repair minor issues. Furthermore, in order to control messaging regarding the ongoing OLRT1 service difficulties, OC Transpo officials did not allow RTG to speak to the media publicly. As per the project agreement, public communications remained the responsibility of the City, which often focused blame for the project's issues on RTG (Ottawa Light Rail Transit Commission, 2022).

Accountability

Many transit commissioners also identified the P3 as causing issues in terms of identifying accountability for the project and its performance. Due to the political ramifications of the poor system performance, transit commissioners argued that the governing coalition focused very strongly on emphasizing the responsibility of RTG to repair and improve system performance. While RTG was largely unable to publicly defend itself from these allegations, due to the control of public communications by OC Transpo, RTG alleged through correspondences to the City in response to the notice of default that the City had been fully aware of the deficiencies of the system as they came to light during the testing phase and that the decision of the City to proceed with the launch required the acceptance of these flaws as 'growing pains' (Ottawa Light Rail Transit Commission, 2022). As problems with OLRT1 mounted, many transit commissioners noted that consortium members began to place blame on each other for the delays to the project (TC1, TC4, TC5). Any individual component of the project which was delayed had an impact on each of the other member's ability to profit since it delayed payments and operation by the city. As problems with the OLRT1 system became more apparent following the system launch, each of the individual consortium members had individual reputations to protect. For instance, Alstom had recently been awarded a contract from Metrolinx, a provincial crown corporation responsible for delivering inter-municipal transportation projects in the Greater Toronto Area to supply the same vehicle employed in the OLRT1, the Alstom Citadis Spirit. With many of the problems of the OLRT1 being attributed to the light rail vehicles themselves, there existed a significant amount of tension within the group as Alstom sought to defer blame for system problems to parts of the system outside of its control than the vehicles. This dynamic was observed clearly in the proceedings of the public inquiry, as each of the consortium members was represented by individual legal counsel, providing cross examination of the other consortium members in order to disperse the blame across members.

Of particular interest was the identification of priorities for the different stakeholders in the P3 agreement. There was consensus amongst all respondents that RTG's motivation for profit came at the expense of the provision of quality service. Of note was one respondent who identified the interests of the City as being separate from the interests of the public. TC4 specified that "as a corporate entity, the City of Ottawa is very well protected in the project agreement in the sense that we have financial remedies and legal remedies and otherwise to address performance issues from the project. The entity that's not really protected as well would be the public." (2023). The identification of the public interest as being separate from the interests of the municipality demonstrates the neoliberalization of the state and the administration of government as a business that should protect itself from legal risk, rather than a broader concern for the broader public. TC3 referenced the inexperience of city lawyers who reviewed the P3 agreement as a rationale for requiring the

use of consultants, and noted that the City's lawyers tend to focus on identifying risks based on past legal risks that the city has experienced, rather than the bigger picture of risks which may arise as a result of the motives of the consortium, or risks that may impact the public at large.

Rescaling of Government

Another important factor was the rescaling of governance which occurred since turning to a P3 in order to deliver OLRT1. Many councillors expressed frustration at their ability to enact change in how the project was progressing simply due to the concessions and decision-making they awarded to the consortium RTG through the development of the project agreement. As TC4 argued "Governance is important, but ultimately, it is the project agreement that is responsible for most of the project outcomes." This recognizes the fact that the City had little recourse to compel RTG to do anything beyond penalizing them in accordance with the project agreement. This frustration in being unable to work with RTG to address issues early on in the system was a key factor in compelling the City to begin the notification of default process. As TC5 stated "RTG's motivation for ensuring a well-functioning LRT system is assumed to be the financial incentives that are built into the project agreement. When those financial incentives are insufficient… what do you do? […] The theory underlying P3s fell apart." (TC5, 2023). Many of the transit commissioners expressed a sense of helplessness or inability to enable RTG to change it's practices or improve the service of the system.

Members outside of the governing coalition indicated that this was a key impact of how the P3 impacted urban governance. In most cases councillors would be able to have more direct access to staff working on the project through their contacts within OC Transpo (TC2, TC5). In this case, all information was provided by members of the Mayors governing coalition due to the requirement to use OC Transpo liaisons to get information from RTG (TC2, TC5). Furthermore, the frequently referenced incident regarding the testing phase of the OLRT1 demonstrated the rescaled role of government. By meeting the revised testing criteria, the City was contractually obligated to provide milestone payments for substantial completion of the line, and then to begin paying the consortium the monthly service payments for providing the LRT for revenue service. As TC5 argued "The point at which our oversight would have been most important was the decision to launch or not launch LRT stage one. […] We've learned […] that it was launched prematurely and city councillors had doubts that it should be launched […], however, we were contractually obligated to begin payments and service at that point" (2023).

Regime Change and Impacts on Council Dynamics

With the election of Mark Sutcliffe in September 2022, nearly all transit commissioners noted a marked shift in the dynamics on council (TC2, TC3, TC4, TC5). Despite Sutcliffe's endorsement from Mayor Watson, and a very similar political agenda and platform to the incumbent mayor, there was nearly unanimous agreement that he brought a significantly different political dynamic to council. Nearly all councillors felt a greater degree of freedom in voting with their conscience rather than by being compelled by a political coalition. Many councillors referenced unpredictable voting patterns on Council given the

lack of political affiliations. As one Transit Commissioner described, comparing the votes in the current session of council to the previous one, "We don't see that consistent voting pattern. Every vote is a bit of a wild *** ride." (TC5, 2023). While some argued that regional issues were still a uniting factor, for less locally implicated issues, there was a wide degree of variability in voting patterns. They also noted that certain issues united more conservative councillors, however they did not form a cohesive voting bloc for the majority of votes. While four of the five respondents noted a significantly different dynamic on council under Sutcliffe, one transit commissioner maintained that the dynamics from previous council were still present in shaping votes. While initially expecting a new political coalition and new dynamics on council to take shape, they argued that:

> "I had a lot of hope with the new council […] there were a lot of self-proclaimed progressives that were elected on to council. But what a lot of us have seen, and are disappointed to see is that these folks are selectively progressive so they seem to be going along to get along when it comes to Mayor Sutcliffe. […] there's a cabal forming again and it's everyone wants to get along because the last council was so […] dramatic." (TC1, 2023).

Despite the divergent opinion of TC1, a review of voting records more aligns with what was described by the other four councillors demonstrating a very different political coalition.

Overall, many Councillors described their relationships as being far more amicable amongst councillors compared to the previous councillors. Many councillors found that the opinions of all councillors were equally valued, regardless of their previous positionality within or outside of the governing coalition. TC2 found that "there are a lot of incumbent councillors who wouldn't talk to each other last term, but this term […] after like most council meetings, we go out and have some snacks, literally." (2023). Furthermore, others felt as though they were able to have their questions addressed by municipal staff to a much greater extent, allowing city councillors to feel "fairly confident that we're going to find out how [Stage 2 of the Ottawa LRT] trial running is going, and if enough councillors make a stink about something […] we will hold off launching until it's ready. Whereas in Stage one […] the information about how it was running was kept from virtually all of council and that opportunity to say no […] was not the same."

Beyond the new dynamics on council, many councillors identified an improved dynamic with RTG. Many attributed this improved dynamic to a 'relationship reset' that was achieved in January 2023, following the settlement of the City of Ottawa's notification of default proceedings (TC2, TC4, TC5). While the terms of the settlement remain confidential, both RTG and the City jointly agreed that they would put aside the issues they had experienced in the past with each other to collaborate to improve OLRT1. This has lead to significant changes in how council has received information with many councillors finding appreciating that "there are several instances where RTG has proactively shared information with the city without the City asking for it or compelling them for it, and likewise the other way." (TC2, 2023). Other councillors also found the increased communication of RTG directly to council and the public to be a positive factor which allowed them to get data without having to go through City staff (TC5).

Evolving Role of Consultants and City Staff

TC4 identified that the City's use of consultants evolved under Mark Sutcliffe. The respondent initially identified the role of consultants being purely consultative to municipal employees who then took their advise and integrated it into their management of the project agreement and used it in dealings with RTG. Under Sutcliffe, the respondent noted that consultants now directly reported to council, as well as municipal staff. They identified this as an improvement in the transparency of the City's governance because they felt as though the consultants acted as a neutral, third-party oversight over municipal staff. They noted that this increased their confidence in the advice that was received from municipal staff. Transit Commissioners also noted that under the new General Manager of OC Transpo, Renée Amilcar, there was a significant effort to develop the City's own rail engineering department so the City was able to draw upon in-house expertise (TC2, TC4, TC5). This allowed the City to have additional technical expertise to counter claims from RTG's in-house engineering teams, supplemented by specialized consultants as necessary. Beyond Amilcar's focus on the development of OC Transpo's rail engineering department, some transit commissioners noted that her previous experience as vice-president of engineering for the Société de Transport de Montréal, and her technical background improved her perceived credibility. TC2 argued that her engineering background emphasized a focus on the technical aspects of the rail system, in contrast to the former General Manager's approach.

Attribution to the P3 arrangement

When asked the extent to which changes to urban governance such as the political coalition, or the lack of accountability and transparency were a result of OLRT1 being a P3, there was a mixed views amongst the transit commissioners. Some councillors argued that the improved transparency that has been experienced thus far in the new term of council as an indication that the transparency and accountability issues experienced in the last term of council were more of an indication of a governance style of the previous mayor than an inherent fact within P3s that they lack accountability and transparency (TC4, TC5). However, as noted above, many councillors found that there were specific aspects of the P3 arrangements which enabled the governing coalition to prevent project transparency or accountability, such as the ability to control contact to RTG by City Councillors through the centralization of communication, and also by preventing RTG from making public communications activities. Other councillors identified the rescaling of government as a surprising impact of the P3 arrangement which they were not prepared for. By having the relationship with RTG governed largely contractually under the Watson coalition, they felt a reduction in the ability of their roles as City Councillors to influence the performance of OLRT1.

6 – Discussion and Conclusion

This section shall now assess the results, contextualizing them in the context of the relevant theoretical frameworks and research questions. The discussion points to three main results. Firstly, that global market and systemic factors do play a role in encouraging the proliferation of P3 agreements. Secondly, that the global market and systemic factors may have an impact on the quality of the infrastructure produced. And lastly, that P3 arrangements can have impacts to the urban governance of cities, and that their features can be leveraged to reduce the transparency and accountability of governance in the interest of maintaining power and facilitating the strength of coalitions.

Influence of Market and Systemic Factors on Procurement Decisions

Firstly, the results validate and give increased weight to Siemiatycki's framework as a useful tool to understand the global rise of P3s. All of the factors identified by Siemiatycki played a role in facilitating the adoption of P3s in the specific context of Ottawa. One of the most significant factors identified during the research process was the impact of various consultants on the project. With many of the interview respondents noting the City's lack of capacity to conduct procurement options analysis, it is clear how strong a role that consultants play in shaping the policy options put before City's with regards to how infrastructure projects are procured. Furthermore, the significant incentives that consultants have to recommend options which will create further demand for their services provides a problematic incentive. The City also clearly demonstrated a willingness to continue working with consultant partners regardless of the usefulness of their previous expertise. This suggests that there is a need for cities to be supported by a neutral third party.

In many ways, this is the function that Infrastructure Ontario was supposed to play in the project. However, the lack of experience in procuring rail infrastructure projects and their perceived preference for P3 procurement options demonstrates that they are not neutral in the procurement process. All of these factors demonstrate that in many ways, cities are at a disadvantage when dealing with multi-national construction conglomerates when procuring large infrastructure. In many cases, investments such as the OLRT1 represent once in a generation investments infrastructure, giving individual municipalities little ability to gain experience and expertise when negotiating with large international corporations who may be involved in dozens of large infrastructure projects across the world at any given time. This demonstrates the increased role and power of large multinational corporations play in shaping cities and their associated infrastructure. The ability and necessity of multinational corporations to finance P3 infrastructure projects means that they are a nearly indispensable partner that suggests cities must be better equipped to deal with.

The infrastructure financiers of the project, in this case the upper levels of provincial and federal governments who are providing the funding for this project also play a role in shaping this project, and it is clear that preconceptions about the model to be used for the project influenced how decisionmakers examined other alternatives. The now common saying, first attributed to Abraham Maslow comes to mind that "if the only tool you have is a hammer, it is tempting to treat everything as if it were a nail" (1966, p. 16). This refers to the

cognitive bias that was projected onto municipal decisionmakers from Infrastructure Ontario's preference to use familiar project tools in a new scenario, in this case, being the first rail infrastructure project that had ever been supported by the agency. It is important that policymakers be conscious of and avoid this cognitive bias in order to fairly assess the benefits and costs of each procurement method.

Impacts on System Performance

While it is clear that the factors identified by Siemiatycki play a significant role in encouraging the City to adopt a P3 model, but it was less clear how those factors had material impacts on the resulting system. Some of the factors identified by Siemiatycki (2013), simply demonstrated a lack of experience, rather than a larger systemic effect. For instance, the inexperience of some of the consultants advising on the OLRT1 likely lacked the foresight to foresee and circumvent issues before they arose. Despite, Infrastructure Ontario's expertise on P3 agreements in other contexts, when advising for the first time on a rail P3 project, it is clear that they were unable to foresee all of the difficulties which may occur in an urban public transportation project in contrast to their previous experience.

Rather than the systemic factors identified by Siemiatycki (2013), it is clear that the governance of the project, in which the governing coalition often kept information to themselves, and attempted to cover up any problems likely had a substantial impact on the systems operation. Most notably, the decision to launch the system with revised testing criteria despite known problems led to a significant issue in which issues with the system had to be addressed on the fly, with the line in full operation, and no backup to support it if there were the need for significant maintenance works, which in many cases, there were. The findings showed that negative system performance was likely to lead to the urban political order minimizing transparency and deferring accountability, thus having a greater impact on the urban governance of the project.

Impacts on Urban Governance

Beyond the impacts of the global market factors on the procurement and performance of OLRT1, these findings also reveal something greater. By facilitating the adoption of P3s, with all their inherent advantages and disadvantages, these factors influenced the governance of the cities. The P3 agreements, through their legal confidentiality which could be used to impede transparency and obfuscation of accountability provided mechanisms for the urban political order, in this case, the 'Watson Club', as well as the cohort of consultants, and RTG to defer responsibility to other parties for the shortcomings of the LRT system, and to maintain their power. Furthermore, these findings provide support to the literature which argues that urban governance is being rescaled. Brenner's argument that cities are a new focus for global capitalist accumulation processes, and as such, are governed by a wide variety of non-local actors is exemplified in this case (Brenner, 2004; Theodore et al., 2012). The inability to enact change or improve the OLRT1 due to the devolution of responsibility for the most important aspects of maintenance and management of the project to private actors emphasizes the reduced role of the state, and specifically, the reduced role of municipal governments in neoliberal urban governance structures.

As previously discussed, the diverse actors which make up an order political order, and in the case of Ottawa, RTG, politicians, and consultants all had vested interests in the P3. While it is not being suggested that any of these actors maliciously sought to develop a poor system, the combination and prioritization of their personal interests resulted in a poor-quality system. In many ways, every P3 can be understood as it's own, discrete political order, with a variety of partners coming together with a shared interest (Stone, 2015). This research confirms that Siemiatycki (2013)'s framework identifies the most relevant actors in a P3's urban political order, and identifies some of the factors that draw them together. This could be an interesting avenue for further research to understand whether P3s in other contexts contribute to the development of urban political orders.

Lastly, the change in the urban political order that occurred in the transition from Mayor Watson to Mayor Sutcliffe indicates that P3s are not inherently good or bad, but rather, like any tool, can be used productively or counterproductively depending on the user and use case. The evolution of relationships between all the parties and the realignment of their interests following the settlement of the notice of default demonstrates that P3s truly are **partnerships.** And that all parties must be working together as partners, rather than in opposition to each other in order to ensure that the benefits of the partnership are realized for all parties, including the public end-users.

To summarize these findings, I have developed a diagram below (Figure 9) to illustrate my understanding of the findings. This diagram demonstrates how global market and systemic factors contributed to the use of a P3s for Ottawa's LRT, which in turn facilitates the creation of an urban political order that has a reciprocal relationship between system performance, and the urban political order's lack of transparency or accountability, which again impacts the performance of the system.

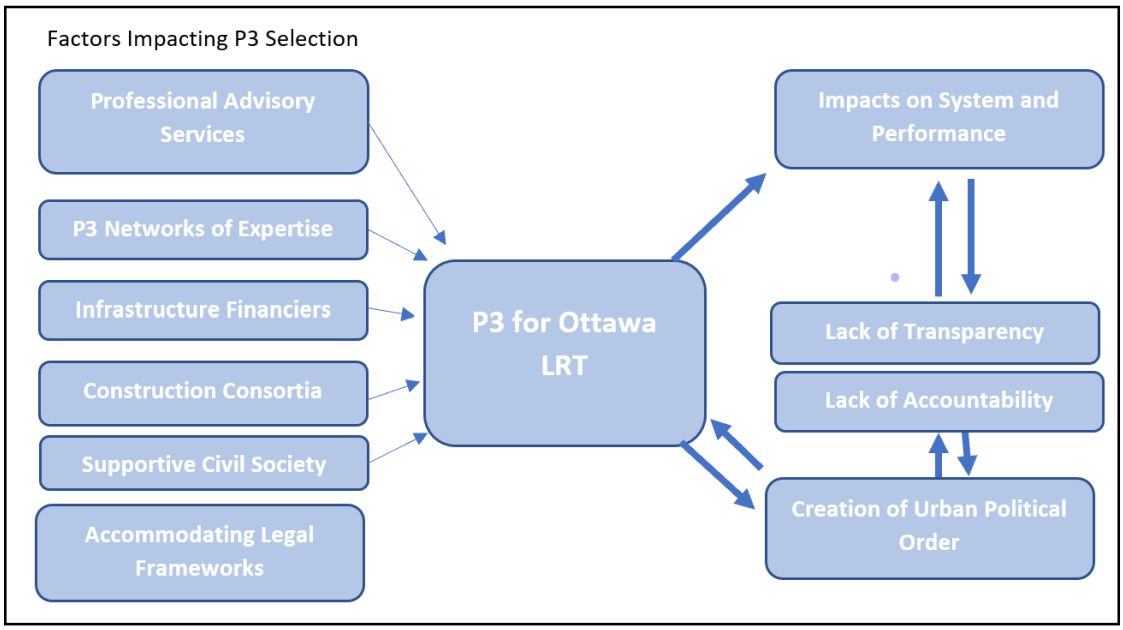

Figure 9 – Author's diagram illustrating the findings of the research.

Recommendations for Policymakers

The OLRTCPI has made over 100 extensive recommendations aimed at preventing such a situation from ever occurring again. Therefore, I would like to draw upon some of the recommendations made by the OLRTCPI and expand upon them based upon the findings of this research.

Firstly, there is a clear need to better understand and consider the impacts of P3 arrangements on large infrastructure projects, and for municipalities to be better equipped to procure them. As the OLRTCPI recommends "effective planning requires project-specific expertise and requires those involved to address unconscious biases" (Ottawa Light Rail Transit Commission, 2022, p. 483). The inexperience of many of the actors involved in the OLRT1 contributed to the poor performance of the system. As more cities develop P3s for their large infrastructure projects, there is a need for an improved understanding of the variety of procurement options which are available, rather than using the dominant method of the time. The need for an agency such as Infrastructure Ontario is reiterated, however it is clear that Infrastructure Ontario must gain experience in supporting the procurement of a wider variety of projects through a wider variety of procurement methods in order to become a centre of expertise which municipalities are able to rely on for unbiased advice. Each project is unique and as the OLRT1 demonstrated, the P3 model comes with inherent mechanisms that can impact the governance of the system. The development of procurement expertise by government agencies provides a clear benefit than relying on outside consultants who may have their own biases to endorse procurement models which would require their continued services.

Building upon the previous recommendation, OLRTCPI recommends that decisionmakers evaluate all delivery model options when delivering a large infrastructure project and that objective criteria are used to evaluate each option including the model's accountability and transparency measures, the degree of control retained by government, and the extent to which each model prioritizes the public interest (Ottawa Light Rail Transit Commission, 2022, p. 486). These factors are not often prioritized in decisions regarding the procurement model compared to the model's value for money. However, as this research has demonstrated, these are significant implications of the delivery model, which can ultimately impact the project's performance for end users. The importance of these criteria when assessing procurement approaches cannot be understated.

Limitations

Despite the various findings arising from this thesis and research, the transferability of these findings to other cases is limited due to the nature of the single case study. Further research and examination of Siemiatycki's framework, applied in other geographic contexts is needed in order to confirm it's broader validity. Furthermore, it was clear from the research that while systemic and market factors did have a significant on the selection of P3 for the OLRT, it is also clear that there were a wide range of factors at the more local, political level which played a significant part in shaping the outcomes of the project. While it has already been identified that there is a dearth of comparative examinations of P3s due to the complexities of the arrangements, it remains clear that comparative examinations of projects

in different geographic contexts may further strengthen or weaken the findings of this thesis. Future research would also benefit from selecting P3s in which audits or similar public inquiries have generated large datasets of documents or interviews with key stakeholders which help to provide a much completer understanding of the findings.

Due to resource constraints, a limited number of transcripts from the OLRTCPI were analyzed. Due to the limited resources, transcripts were selected based on those which provided a good overview of a wide range of topics in the procurement and construction of the project, and also those that emphasised the impacts on/of governance. This oriented the majority of the transcripts analyzed to be those from city officials rather than the individual firms involved in the project, whose testimonies tended to be more focused on technical issues that arose in the context of the project. To overcome this limitation, the Report published by the OLRTCPI helped provide an overview of all of the testimonies, however, with greater resources, a more comprehensive analysis of all transcripts could better support the findings of this thesis.

Access to informants for semi-structured interviews also proved to be a limitation of this thesis, while 5 councillors on the Transit Commission were interviewed providing a good overview of the factors that impacted the decisions to procure a P3 for OLRT1 and how those factors impacted the system's performance and governance, a wider variety of semi-structured interviews with private actors would have strengthened the argument that an urban political order had formed beyond the coalitions built by the politicians who serve on city council. The OLRTCPI Report provided a good overview of the testimonies that were received; however, the timeframe of the report limited the data from private actors to prior to the change in regime from Watson to Sutcliffe. Interviews with private actors following the regime change would have strengthened the findings of a renewed approach to the governance of the OLRT1.

With regards to the findings on how urban governance has impacted/been impacted by the OLRT1 P3, there are many difficulties in assigning the findings solely to the fact that the project was a P3. As evidenced by the regime change from Mayor Watson to Mayor Sutcliffe, as well as the release of the final report of the OLRTCPI, there were many confounding factors which have occurred over the past months which cast doubt on what exactly has led to the change in urban governance dynamics in the City of Ottawa. Three key events have obscured the degree to which any one element may have influenced urban governance. Firstly, the transition from Mayor Watson to Sutcliffe. It remains unclear the degree to which Mayor Watson's governance style would have been impacted had the project. While there are certainly indications that the structure of a P3 did provide some enabling mechanisms to control the information to council, it is unclear whether a project leveraging traditional procurement approaches could have been manipulated to the same extent. As mentioned before, the shift in governance approach between Mayor Watson and Mayor Sutcliffe demonstrates that P3s do not inherently have to be adversarial, opaque, and unaccountable.

Conclusion

With P3s in particular, this research has demonstrated how strong a role the diverse actors play in influencing procurement approaches, the resulting system, and urban governance more broadly. This thesis has helped to contributing to the understanding of the global forces which contribute to the adoption P3s, and perhaps most interestingly, suggests that P3s have mechanisms which can be used by urban political orders to control power. The thesis emphasizes the need of municipal governments and decisionmakers to more carefully consider the implications that the implications that the procurement approaches may have on urban governance. As cities continue to grow and adapt to the challenges of the modern era, there will continue to be a significant need for new investments in large infrastructure projects and in particular, public transportation projects. As this thesis has demonstrated, in this era of neoliberalized urbanism, these projects ultimately will be influenced by a wide variety of actors and capitalist forces, regardless of their procurement model.

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Appendix A – Example Interview Transcript TC5

TC5:

OK, I'm in your hands.

TOM CARNEGIE:

All right, great. So first off, do you want to start by talking about, like, your familiarity with the project and just like how you've been involved in stage one of the LRT?

TC5:

Yeah. And it's probably important to note, I'm not actually sure how many counselors are left from the decision on how to proceed with it. **[REDACTED FOR ANONYMITY PURPOSES]** it was a lot of work just working through the construction issues city councillors do in those wards... I'm trying to think of whether there was any or not. There weren't any expropriation issues in stage 1 that I was privy to because it worked in the existing Transitway trench. So what I'm gonna say is the majority of my involvement with stage 1 was working through in my capacity as city councillor the typical construction issues of a big piece of civil engineering as well as working with my colleagues to find out how is construction going. When this is going to open? Is it going to open on time? And then working through the issues as a city councillor associated with the fact that the project went wrong. Yeah, right. So the governance issues associated with trying to find out why it went wrong and how we're going to fix it.

TOM CARNEGIE: **[REDACTED FOR ANONYMITY PURPOSES]**

TC5: **[REDACTED FOR ANONYMITY PURPOSES] [...]**

And I have to say, when the bus detour began, so the construction of... the conversion of the trench began, both the mayor at the time, Mayor Watson and I. We both had taken the detour and like we both thought it might be actually faster than what the buses were before, like the length of time it took for a bus to get from Tunney's Pasture to downtown seemed to actually be quicker as a result of the detour. And really, just a couple of buses, you know, three or four buses went out at the time, they passed by all the homes really quickly and it didn't turn out to be the issue that that we had painted it to be in the issue or in the community. So yeah, so I ate some crow on that one.

TOM CARNEGIE:

I mean, I do. I do empathize with them. I lived just on Albert St. for few years that I was going to school.

TC5:

OK.

TOM CARNEGIE:

So I mean, my living room was the Transitway. And so we were especially disappointed when the LRT got delayed, but I mean, hey, we knew what we were getting ourselves into when we signed up there.

TC5:

Yeah, I mean it's been a Transitway for a few decades so. But even like Albert, you know, with the lights, uh, every bloc and stuff. Uh, we didn't even experience the pain that Albert was... had been experiencing for years. The buses got out of Tunney's Pasture and they had their dedicated lane on Scott St. and they just kind of like two or three buses fly by at a time and out of the community. So it was... Yeah, it was a good learning for me.

TOM CARNEGIE:

So moving on to something a bit more specific about the P3 model, recognizing you weren't there for the decision, but obviously you are here trying to manage the impacts now, what do you see to be some of the biggest impacts of going with the P3 model for Stage 1?

TC5:

Yeah. So obviously there's a lot. I talked about the role and one of the one of the conceptual difficulties that residents of the ward have is how the construction project under a P3 is different from a construction project that the city might be undertaking. So the city regularly undertakes construction works, big civil works. So in the in the very beginning in those first few years when it was a large civil project. One of the drawbacks is that the contract... the project agreement was structured in such a way that the builder had significant day-to-day control of the construction site that, as a city Councillor, I didn't have a lot of influence over. So in the PA. Let's say I'm trying to think of an easy example, but a bicycle path has to close, right? So they're gonna close an intersection. They're gonna close the bicycle path and move the bicycle path somewhere else. If that were happening in a civil project that the city was immediately responsible for so, we can try and get a builder to do something for us. There's a project manager who is overseeing that project, and if I'm upset, how do I put it? I'll put it more politely. I'm always sort of trying to be measured. If there... If I have concerns about an impact of a of a city project on residents, there is a project manager to whom I can speak and that project manager can speak to the contractor and work out a solution to whatever the concern that I have. In a P3 is the city councillor has to speak to stakeholder relations at the city, the city's Stakeholder Relations Group then speaks to the P3 builder, speaks to their stakeholder relations group, who then speak to the people who are actually accomplishing the day-to-day work. So I don't have... There's no one on the project to whom I can speak directly and quickly about impacts that the construction is having in the community in order to try to solve some... There's a tremendous amount of flexibility in how the builder is allowed to use the geography of the construction site that doesn't go through the city councillor anymore. So it's a stage 2 issue that I can most easily think of here, but uh... **[REDACTED FOR ANONYMITY PURPOSES]** So in stage two, that was part of the work site that had been assigned to the builder and the builder determined to use for their logistics reasons. A field that has been used by dog walkers to park vehicles and they have every right under the project agreement to use this geography as they see fit to accomplish the project without that sort of day-to-day oversight from the city or from politicians. And it was a lot of work to try to address that situation. And I, the mayor, got involved in it. It all worked out in the end, but I think the lack of control is the only... How do I? I'm sorry, I'm raving at you here.

TOM CARNEGIE:

Please! It's all data.

TC5:

Political considerations are less important in a P3 because the only commitment that you can leverage from the builder is what's in the project agreement. The project agreement is the be all and the end all of the relationship between politicians, elected representatives and the builder, right? It comes down to the project agreement and that can be frustrating. As an elected representative, to have to tell people that's not something I can control, there's no motion that I can bring to council to change that. So in a civil project, if the if the builder is gonna do... I don't know do... some X as part of their logistics I can bring a motion to City Council and I can say "Ohh we're gonna keep that road open or no, we're gonna close that road. Or no. Here's how it's gonna happen." That that doesn't come into play. There's no political oversight of the accomplishment of the project because it's the only the project agreement to which the builder needs to adhere. And if the project agreement has not been completely and thoroughly and perfectly crafted. Elected representatives are very challenged to try to accomplish changes that are in the public interest, and that's that is a major issue with which both on phase... stage one and stage 2. That's been a conceptual hurdle for residents, particularly is that no, if it's not in the project agreement, that's not something I can make them do. The leverage is not there and we...

The other big drawback of course and the big hurdle or the big discussion I was having, I think we were all having in those early first days. Of failures on stage one were if the financial incentives... theoretically should be the prime motivator to ensure good outcomes... are not sufficient. What do you do? Sorry I had... I remember, I'm trying to think of how I put that a few years ago when we were having this discussion in earnest. You know the operator RTM/RTG. RTG's motivation for ensuring a well-functioning LRT system is assumed to be the financial incentives that are built into the project agreement. When those financial incentives are insufficient... what do you do? And it was a... it's a philosophical, a political problem. A when it doesn't work the way it's supposed to... the theory underlying P3s fell apart. In those earlier days of LRT launch, not every problem can be solved through financial motives. And that was really difficult, I think for a lot of us to come to grips with. So if the if the train is not serving, if they're not meeting service standards, right? With respect to, you know, X number of kilometers delivered or whatever the PA metric is, you can penalize the builder. But that doesn't fix the problem.

TOM CARNEGIE:

Yeah. And at the end of the day, there's still a lot of people that got places to go.

TC5:

Yeah. So ... the builder is still motivated to try to fix the problem, but it's not working and it externalizes the penalty. The penalty is not being paid by the builder to the same extent that it is being paid by the public. In whose interest the LRT is supposed to be operating and that externalization of the penalty is a is a huge conceptual problem with P3s.

TOM CARNEGIE:

OK, I think. That that's really great. You touched on a lot of different themes that I've been kind of pulling out for my thesis so. One of the... so you talked about the like project

agreement kind of being like a focal point of all this like it's the be all and end all of the relationship. It's the... what has all the incentives in there, and if it's not crafted well, then you know you're kind of grasping at straws. You touched on this in your response, you have a lot of lines of people to go through in order to figure out the problem and then sure it's RTG's problem. But even within them. And then also kind of transparency of the agreement where you know, you as a counselor can't even point at it for the public because the public can't even see the actual project agreement correct?

TC5:

So I think the project agreements became in large parts, mostly public, like if people were asking. There was enough of the PA available that if someone really wanted to take a look and see... you know, did we specify that the floor should be non-slip? You could look in the project and agreements and you could see that no, we didn't specify that the floor should be non-slip. But the work involved on the part of a resident to try to understand the PA is more than most reasonable people are going to put in, right? It's a complex legal document. The barrier to transparency is the complexity of the PA rather than... it not being available would be how I'd say that.

TOM CARNEGIE:

OK. I'm just going through my notes to see if there's anything else I might follow up on with that? OK. Maybe I'll just come back to that because I want to get to the other kind of part of my questions and then we'll just see what we have time for at the end. I'll just ask you. How have you seen kind of the governing coalition evolve on council in your time in office and how has that impacted kind of the governance of....

TC5:

The LRT? Yeah, loaded question. And you know that.

TOM CARNEGIE:

I tried to ask it as objectively...

TC5:

No, it's.... So the period from 2014 until 2022 was obviously Mayor Watson. And Mayor Watson's approach to council was to set up a bloc of counselors on whose vote he could absolutely count. And so for those who are not part of that governing bloc, it became difficult to try to win some of the votes that would have required greater transparency, particularly on the part of city staff. I'm trying to think... Where some good examples of that, uh... you're well familiar with the vote that was taken on the request to the province to have an inquiry, right? So that vote was indicative of, you know, the previous mayor's power to keep counselors at arm's length from the project so that even if they wanted to have the oversight and get the answers from city staff that they wanted, if the mayor felt that that was counter to what he was trying to accomplish, he was able to ensure that. That oversight on the part of council didn't happen, and I think the inquiry obviously touches a lot on that. Under the current mayor... But I will say... The in camera briefings from our legal team like once this became a legal matter in which we particularly asserted default on the part of RTG. That became a legal matter at that point, we started getting legal advice in camera and that was always very transparent. And I think we have great legal representation. The problem, of

course is it's not transparent to the public. So counselors would often have a good idea coming out of legal briefings, how that was proceeding, that the public didn't have with respect to explaining why the project was late. Understanding the factors between why it was late to open and then explaining to council and the public why it was failing, I think we saw a different approach under the previous mayor and which information was more carefully guarded. That has changed under the current mayor, such that we are getting significantly more information and our questions answered and every councillor around the table now has every opportunity to exercise oversight and to get answers in a way that we did not in the 2014 to 2022 period, did I answer that? To answer the question?

TOM CARNEGIE:

Yeah. No, I think that's really good. I think one of the most interesting things I've gotten from these interviews so far is like I've talked to people that were obviously in the bloc, outside of the bloc, and you know, sometimes in the bloc. So I think that... and all of them have pretty much made reference to the in camera questions and I still think it's very... it's been very interesting the conflicting views that I've heard on that.

TC5:

OK.

TOM CARNEGIE:

Because obviously you can't talk about what's discussed in there but some people, well, like you said, like you felt like it was very transparent. Others still felt it wasn't transparent and others felt that the in camera sessions were a barrier to them showing how transparent the process was.

TC5:

Yeah, it's it. It's difficult to talk to the public about some of the things. I mean, obviously there's a lot of discussion about, you know, I think it came the shorthand... we wound up using a lot of us, it wound up being divorce, right? Can we divorce, RTG and go it alone? And the in camera sessions were very blunt and explicit in the advice that we received from independent counsel and I felt as a city councillor that I was getting good professional legal advice and that it was transparent to me that I had the opportunity to ask questions that were answered in a straightforward and blunt way, but that couldn't be shared with the public. And that's frustrating, I think to a lot of politicians whose bread and butter, of course, is we deal with the public. That said, so that was very frustrating is to not be able to talk about some of the paths and choices that we had to make.

TOM CARNEGIE:

OK. Well, I think we're just about to hit time. So I don't want to keep you, I want to.

TC5:

Oh I have this till five so.

TOM CARNEGIE:

Oh, did you? Actually. OK, well, I'll. Go a little bit longer then...

TC5:

Yeah. No, no...

TOM CARNEGIE:

I mean I only asked for 30 minutes, but I'll... I'll thank **[REDACTED FOR ANONYMITY]** for that one, he's actually an old acquaintance of mine.

TC5:

OK.

TOM CARNEGIE:

So it was super funny when I reached out to your office and he ended up responding. I had no idea that he was working for you. So yeah, that was super cool.

TC5:

Ohh, cool. Nice.

TOM CARNEGIE:

To connect from Brussels. But yeah, OK. Going back to that then, so you said you feel that it's more transparent now. How has that kind of changed your relationship and managing the relationship with RTG?

TC5:

That's a really good question because I think as sort of we spoke about a little bit before you started recording. City councillors don't have the expertise to actually make the technical changes that need to be made in order to ensure that the rail is operating in the public interest. In trying to deal with the aftermath of light rails, most biggest failures? Sorry, how do I want to put this? We've just had another failure of stage one, obviously. Uhm, and staff have been as transparent as counselors can stretch our non-expert minds to think about light rail, right? So we we've had to learn a lot about light rail that we city councillors, probably shouldn't know, right? "Ohh yeah, well the pantograph is, you know, here's the 0.3 millimeter tolerance onto the overhead catenary. You know, it's a lot of really technical stuff. And so we're not guiding staff in how to fix the problem we're under intense pressure from the public to be seen to be guiding a fix, but we don't actually do that as city councillors, so the change that has been made is such that I think we all just feel more confident now in staying the course. Sorry, it's a lot wrapped up here. I don't think we felt confident when we were on the outside of the decision making that we were getting the full story and the point at which that was most important. When our oversight would have... the point at which our oversight would have been most important was the decision to launch or not launch LRT stage one. Everything else since then, city councillors are much. Less important until the settlement? Right. But the biggest point at which city councillors could have made a difference was go or no go on launch. And what we've learned from the inquiry is that it was launched prematurely and city councillors had doubts that it should be launched. We had questions as to whether or not it was allowed to be launched and I think had we had more fulsome discussions around that time, had the public been receiving more information, had counselors been able to ask in public forums "Is this ready to launch or not?" There's a

chance that public and political pressure would have held launch off. And I think we could have avoided some of the problems that have been experienced since launch that are a function of prematurely launching it.

The other the next point at which councillors become important was in our legal dispute with RTG, and unfortunately I can't describe, you know, the choices that counselors made, but having all of the information after marathon in camera sessions helped us to reach a decision. To arrive at a settlement with RTG, that has resulted in a better day-to-day relationship between RTG and OC Transpo as they actually seek to fix the problems. So the transparency that we received in our legal dispute has resulted in better outcomes compared to the poor outcomes that were achieved. When the decision to launch the train was made. Does any of that make sense? I apologize.

TOM CARNEGIE:

No, it make it makes perfect sense, I think. Yeah, that's a... That's a really interesting perspective, kind of having those two inflection points is like kind of the key political interventions is something I haven't heard before, but I it makes a lot of sense. I think when you put it like that.

TC5:

Like, we've gotta be realistic about where political decisions are actually being made and I think you know the decision to launch the train, I think you know in Stage 2 coming up, we'll find out. But we're all feeling very confident under Mayor Sutcliffe and Miss Amilcar, I think we're all feeling fairly confident that we're gonna find out how that trial running is going. And if enough councillors make a stink about something. It doesn't seem right, I think, you know we will hold off launching until it's ready. Whereas in stage one you know the information about how it was running was kept from virtually all of council, and that opportunity to say no, we can't launch it yet was not the same.

TOM CARNEGIE:

Yeah. Yeah, because what, what ammunition did you have? You had: "Well, it passed the trial running period. Great." So...

TC5:

Yeah, like, what do we have? And then you've got a mayor who controls the voting bloc? That, you know, it's very different when you have a Council in which everyone is making a contribution and is largely free to vote their conscience. So I think we'll see … and you're gonna wrap thesis by the time that stage two has launched... And you'll... we'll all see whether or not whether or not it makes a difference.

TOM CARNEGIE:

Yeah. So I mean, going to the kind of free voting with your conscience Council, do you feel that's definitely more the case in this Council?

TC5:

It is. We see. Uh, the results of votes are often very unpredictable in a way that is a lot of fun. I have looked at my colleagues, sometimes in the aftermath of a vote, just sort of looking at

each. Like, that's a crazy *** vote. I wasn't predicting that one. You know, we see a conservative bloc that sometimes comes up around various different issues where we see east-end councillors occasionally supporting each other, but we don't see a consistent 18 to 5 vote, you know. 17 or whatever, 18 to 5, 18 to 5 was the usual vote. You know, we don't see that consistent voting pattern. Every vote is a bit of a wild *** ride.

TOM CARNEGIE:

So maybe with that I'll go back a little bit to some of your earlier things on the kind of P3 itself. Do you think that the projects would have been managed differently or could have had a different outcome if it was more of a traditional public led construction project. I mean, obviously the city's not going to get in the business of building rail, but contracting it out in a more traditional sense.

TC5:

Yeah. And again that key points to the go, no go decision would have been very different. When we delegate authorities to staff, we can always pull them back, right, so we probably... had this been a more traditional procurement, we would have reserved for, you know, City Council would have had the ability to say, go, no go, which we would have delegated to city staff. But if we didn't like what we were hearing from city staff, we would have brought that power back to City Council and had the debate and had the vote, because you have a PA that has criteria. And you have city staff who say, yes, it's met those criteria and you have RTG who say yes, it's met those criteria and you have whatever other parties and consultants were involved in that. City Council doesn't have the authority then to say no. You know what? We're gonna reserve that decision for ourselves, you know the city. This manager has signed off on yes, it has met the trial running conditions. And therefore it's a contractual obligation to turn the turn the service over. I think it would have been significantly more difficult to launch the service without a full discussion had we had a more traditional procurement practice. It also would have made some things like the issues that come up day-to-day in a big civil project, you know, for the local counselor they would have... you know, we would have had an easier time, sort of dealing with the inconveniences that are that are part of the project like this. The changes would have been easier to accomplish as well in that we could as a Council make a decision to require a change, even if that under the contract that we have with whoever our contractor is, even if that's a change order. We would have had more authority to require changes rather than requiring the agreements of the P3 builder to changes. I think there's a there's a difference between saying we want this changed, OK, our contract says it's gonna cost this much money and we have to just make a decision about whether we're gonna spend the money on the change or not. That's one thing that we can do that's like a traditional. Then it’s another thing to say we want to make this change, we don't want to make that change. That change is not in the project agreement. And without any ability for us to impose a change that would have been different. I'm trying to think of where that would have been relevant. It may just be a theoretical consideration.

TOM CARNEGIE:

Yeah. I think it's really interesting kind of how you talk about like the managing the day-to-day issues that pop up as a local counselor. Like I think you said **[REDACTED FOR ANONYMITY PURPOSES]** I think it's interesting though because on the flip side of it, you

know you could also argue that this is exactly the kind of efficiency that the P3 allows that make projects cheaper because councillors can't get involved and say, “Hey, that's actually a field that's like really useful to my constituents.” So you know, normally you would have more power to influence that, but that might result in higher costs.

TC5:

Yeah. And so one of the one of the studies that I'm sure will take years to do and the schools will eventually do this is what was the flexibility afforded to the builder as a result of being a P3 with a very sort of... without every detail being spelled out by the city with the flexibility that the builder had, did they take advantage of it? And what is the effect on their bottom line? Right. Because of course it's not... It's a fixed price contract, so we don't benefit from the efficiencies that the builder is able to find. They're motivated to find efficiencies because that pads their bottom line right. And that's why we do it. It's like, OK, we get a... To get a fixed price contract, the builder is motivated to take that contract on because they're hoping to nibble around the edges, where they have flexibility in order to make more money. Then you know if they see the opportunity to make more money, they will. We're gonna pay the same no matter what. And so there is a study at some point to say OK? You know, where did they take advantage of that flexibility? We rebuild roads all the time. I've got like 4 Rd. rebuilds going on in the ward right now and that's the traditional procurement city staff hire consultants who design the roads. To be, you know, to the utmost detail, right, where is the sewer grate gonna go? What kind of sewer grate is that going to be? Where is the pipe gonna travel? How wide is this curb cut? How wide is that curb? There's not really a lot of room for the builder to make a lot of decisions, they're given plans and they build those plans and we hold them accountable for building those plans. So they don't have a huge opportunity to try to take advantage of flexibility to pad their bottom line. They quote and they assume a certain... they assume a certain profit. When they quote, that determines what they quote, whereas you know in a in a P3, they're hoping to make more money than they might initially think by taking advantage of those flexibilities. And we, I don't know. What flexibilities they took advantage of in order to make a better financial project for them, we joked like I know that they were doing things really quickly. So the joke with some folks was this was a finance, design, build, maintain project. I keep screwing all those up, so we reverse the order, right? They would build something and then design it right? They were just moving so quickly. So in a traditional city project. Project someone could ask me what is this going to look like when it's done? And I can show them. Here's what we've asked them to build. What is this station going to look like? Where is the layby going to be? And a lot of those details that you might expect to see in a city project are absent. It's like... We just want, we've told them to build a station, and they're gonna build it. Whatever makes the most financial sense for them within the project agreement, as long as it has a few different elements that we've specified ahead of time. So we may not know where the label is going to be. For the cars dropping off, we might not know where the... Where are they gonna put the traffic control box? Where is you know how tall is this window going to be. Those details were left up to them and we know that, you know the final design took shape almost when it was built. Right, they were making choices constantly as opposed to just building something that we put on the floor. I have to assume that they were making choices that gave us the broad strokes of what we specified in a way that made the most financial sense for them, but without a really deep dive by a lot of very expert people, it's going to be difficult for us to ever know how they took advantage of that flexibility.

TOM CARNEGIE:

One thing you mentioned there is with the cities these consultants and like how they're normally used in in normal procurement, but that's also the consultants have played a really big role also in the decision to go with the P3 in the beginning and then also in how the system is overseen and managed. Do you? Can you talk a little bit about how that... the city's relationship with consultants has evolved in the context of this P3?

TC5:

I'm not sure I can. I'm not sure I have that insight.

TOM CARNEGIE:

OK.

TC5:

You know a lot of. The consulting expertise that we've brought on board has been completely unlike any consulting expertise we've had to bring on board before. Like when we rebuild a road or we rebuild a sewer. Uh, we're working within some very well-trodden paths, right? So there are three big civil engineering consulting firms that design integrated sewer rebuilds and you know they each always seem to, you know, each of them gets a little piece of the work every year from Ottawa. And we know pretty much what they're gonna recommend to us, and politicians get the opportunity to sit in and say, OK, can we change this and let's do that. Whereas this time it's we had to bring on board the expertise to be able to tell us what's going wrong with our light rail that we as a city have no expertise in and how do we fix it. It's all new. I'm trying to think from the beginning till now. Whether there's been any sort of appreciable change? And all I can do is make assumptions around that, right? We hired the best consultants that we could find who were available to do the work, who had the expertise. And I think we've been listening to our consultants all along. So if there's been a shift, I'm not sure what that shift might have been. But it's very different from any sort of other projects that we've gone down with those big civil engineering companies who are working in a space where we've been working for decades and decades, so it's all new on this one.

TOM CARNEGIE:

OK. I'm just going to go through my notes here for a second if that’s ok?

TOM CARNEGIE:

I think we've covered pretty much everything I wanted. To talk to you about. Yeah, I really appreciate all your time today, TC5:, this has been a really, really great conversation and I got a lot of really good data. Is there anything else you’d like to add that I may not have asked?

TC5:

No, I think that’s pretty much my thoughts on the matter. I always enjoy these. Thank you very much for your interest. So I'll take a look at the transcript obviously and if you want to, by all means, please send me the thesis. Once you've defended it and everything.

TOM CARNEGIE:

Yeah, I absolutely will.

TC5:

Perfect. Amazing.

TOM CARNEGIE:

There will be a few months and yeah, and then then I gotta figure out what I'm doing. You know, maybe one day I'll be back in Ottawa, hopefully riding the train with them, with the final fix implemented.

TC5:

It's gonna get fixed. The most terrifying thing I think for all of us is. OK, so we... like we're married to this train. Yeah, we're married. To the technology.

TOM CARNEGIE:

I mean, Ontario is married to that train.

TC5:

Yeah, it has to work. And so if the problem is that it is too heavy and the stresses are too much on that axle bearing assembly... What we're being told is they are confident they can redesign the axle assembly in order to withstand those higher stresses, if that doesn't work, then we have to look at reducing the stress, and I think we're all, you know, as lay people absolutely as lay people we have a good idea that the stresses are being caused by some turns that are pretty severe, and if we have to think about replacing the Hurdman bridge... it's unthinkable. It's unthinkable.

TOM CARNEGIE:

Yeah, yeah, yeah.

TC5:

You know, we'd have to get the property from the NCC. We'd have to rip down a bridge. Well, actually, we'd keep the bridge as a pedestrian bridge. But, you know, there was gonna be a service interruption and I don't know how much you can mitigate against a really long-term closure in order to build a new rail configuration so... But let's hope that they are on board when they tell us that, yeah, they can withstand the... they can rebuild the wheel bearings such that they withstand higher stresses.

TOM CARNEGIE:

I also appreciate the ambition of calling this the final fix.

TC5:

Ya, fingers crossed it doesn't come back.

TOM CARNEGIE:

It's a... it's a bold political statement to make, and I like that everybody's taking it up. But I've been watching saying, ooh, that's.... That's a slogan.

TC5:

Yeah, we have a lot of confidence in Renée, right. She's an engineer. She has run some big systems and thus far we have not seen that she is sugar coating anything. So we'll see how it goes. Amazing.

TOM CARNEGIE:

Well, all the best. I really appreciate it.

TC5:

Alright, thanks for your time. Have a great day.

TOM CARNEGIE:

Thank you. Bye bye.