



WT

WT INSIGHTS

ESSAYS & THOUGHT LEADERSHIP
FROM CONSTRUCTION EXPERTS

PREPARED BY ASSOCIATE VICE-PRESIDENT ALEX BONADIMAN

WT IS AN AWARD-WINNING INTERNATIONAL CONSULTANCY FIRM WHO SUPPORTS CLIENTS ACROSS THE INFRASTRUCTURE INVESTMENT, BUILDING, CONSTRUCTION AND ASSET MANAGEMENT SECTORS.

WT is one of the fastest growing advisory firms in North America. founded in Australia back in 1949, WT has been a force in North America since 2010. A trusted advisor to Owners, Developers, Government and Private sector clients, WT currently manages billions of dollars of active mega projects across North America. When you work with WT you are working with the collective thinking of over 1,700 of the profession's leading people.

WT draws on the collective experience, knowledge and capability of our professional staff in locations across North America and globally to provide our clients with the right advice on all aspects of cost, value and risk to assist in achieving optimum commercial outcomes.

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CONNECT WITH OUR GLOBAL NETWORK AT WTPARTNERSHIP.CO

CANADA, CHINA, GERMANY, HONG KONG, INDIA, INDONESIA, ITALY, MACAU, MALAYSIA, MEXICO, NEW ZEALAND, SINGAPORE, SPAIN, SWEDEN, THAILAND, UAE, UNITED KINGDOM, UNITED STATES AND VIETNAM.

OUR FOOTPRINT

WT IS ONE OF THE FASTEST GROWING ADVISORY FIRMS IN NORTH AMERICA

13

NORTH AMERICAN OFFICES

- | | |
|----------------------|---------------|
| UNITED STATES | CANADA |
| Austin, TX | Toronto, ON |
| Boston, MA | Calgary, AB |
| Cincinnati, OH | |
| Honolulu, HI | MEXICO |
| Los Angeles, CA | Mexico City |
| New York, NY | |
| Phoenix, AZ | |
| Raleigh, NC | |
| San Francisco, CA | |
| Seattle, WA | |



52

GLOBAL OFFICE LOCATIONS

- | | | | |
|---|---|--|--|
| OCEANIA | ASIA | UK & EUROPE | INDIA |
| AUSTRALIA
Adelaide
Brisbane
Cairns
Canberra
Geelong
Gold Coast
Hobart
Melbourne
Perth
Sydney | CHINA
Adelaide
Brisbane
Cairns
Canberra
Geelong
Gold Coast
Hobart
Melbourne
Perth
Sydney | UK & CHANNEL ISLANDS
Belfast
Birmingham
Cambridge
Exeter
Guemsey
Leeds
London
Manchester
Nottingham
Sheffield
Southampton
Swansea | Bangalore
Chennai
Delhi
Hyderabad
Mumbai
Pune |
| NEW ZEALAND
Auckland
Wellington
Christchurch | HONK KONG
INDONESIA
Auckland
Wellington
Christchurch | GERMANY
Stuttgart | MIDDLE EAST
Abu Dhabi |
| | MACAU
MALAYSIA
Kuala Lumpur | ITALY
Milan | |
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THAILAND
Bangkok | SPAIN
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| | VIETNAM
Ho Chi Minh City
Hanoi | SWEDEN
Stockholm | |



EXECUTIVE FOREWORD



PHILIP NIXON
EXECUTIVE VICE-PRESIDENT

The US Marketplace in 2022 presents some very unique challenges and signs of opportunity and recovery in the AEC industry. The following presentation contains a selection of market trend analysis, insights and editorials from WT's roster of experts across our P3 Advisory, Project Management, Project Controls, Real Estate Advisory and Cost Consulting practices, based on observations in the field on active, relevant projects.

On behalf of the entire North American leadership team, it is our hope that you, the reader, find this material timely and enlightening and also see it as a formal invitation for further discourse with our experts across the company.

On the following page is a contact sheet with details on engaging several of WT's construction industry professionals across North America.

Thank you for your time and attention and here is to a safe and prosperous 2022.

A handwritten signature in white ink that reads "Philip Nixon".



LENDERS TECHNICAL ADVISOR

A KEY ROLE IN THE SUCCESS OF
P3 PROJECTS

CONTRIBUTED BY ALEX BONADIMAN
ASSOCIATE VICE-PRESIDENT



LENDERS' TECHNICAL ADVISOR – A KEY ROLE IN THE SUCCESS OF P3 PROJECTS ACROSS THE GLOBE

ALEX BONADIMAN, ASSOCIATE VICE PRESIDENT - PROJECT DELIVERY



Alex provides Lenders Technical Advisory Services for financial institutions on Public-Private Partnerships (“P3”) infrastructure projects including in-depth reviews and analysis of project costs, schedule, permits, and payment mechanisms.

ALEX BONADIMAN

WT

ASSOCIATE VICE-PRESIDENT

ABSTRACT

The role of the Lenders' Technical Advisor (“LTA”) in the North American market has been established and recognized as an important component in the successful delivery of large-scale infrastructure projects across all asset types. As infrastructure spending continues to grow in both Canada and the United States, the LTA continues to bring their experience and knowledge of the P3 contract to private sector parties and lenders to facilitate the intended outcome for a project. The LTA must be actively engaged and proactive in both the office environment and have boots on the ground to understand the critical issues that affect mega projects - here is how:

WT has been involved in strategic project advisory for over 70 years including over 10 years in the North American LTA space. We recognize that our role as the LTA is ultimately to assist the key parties to achieve mutual success in their project. We undertake careful and methodical collection of data, analysis, and reporting – not creating correspondence for correspondence's sake.

WT has an experienced senior team with industry-leading LTA experience to provide the project parties with the confidence that they will receive sound, impartial advice based on actual experience on similarly procured North American P3 projects.

As the LTA, WT is typically sought after and appointed by the Consortium or Project Co to undertake due diligence and technical advisory in different stages across a P3 project's lifetime. **However, it is important to understand and recognize that the LTA's engagement is ultimately for the benefit of the private lenders and financing parties.** On large scale P3 projects, these include large multi-national banks, rating agencies, and bondholders. This means the LTA must build and maintain a successful relationship with all the

key parties within Project Co but also develop an independent and credible opinion on their thoughts of the key technical aspects of the Project.

The LTA is typically engaged across 2-4 stages on P3 projects. These include:

1. The Pre-Bid Stage when several teams are actively bidding on the project and develop a response to a formal Request for Proposals including a price and construction schedule for the project.
2. The Pre-Financial Close Stage when after one consortium is selected as the “preferred proponent”, the parties work to finalize the contract ultimately ending in Financial Close.
3. The Construction Stage when the newly formalized “Project Co” is now designing and building the project.
4. The Operations Stage when Project Co is now responsible for the successful operations, maintenance, and lifecycle refurbishment of the components across the project.

As those in the business know, every single stage above can be a stressful and hectic period as project managers, designers, and constructors first race to build a successful and profitable proposal that responds to the overarching criteria of the project, and then aim to develop this vision into a tangible asset over the construction period. The LTA naturally must also be involved in every aspect of this development to ensure they are comfortable in providing a well-formed analysis and opinion to the lenders who in-turn must be comfortable and confident in providing financing for the project.

BEFORE THE DOTTED LINE IS SIGNED

Across the “in-market” stages prior to the project contract being signed by the project Owner and the winning consortium, the LTA must come to be an expert on the project in a short amount of time so that the financing parties agree to provide a competitive and successful lending solution.

This includes providing analysis and opinions on:

- Project Overview and Key Project Risks.
- Project Team Delivery Ability and Consortium Assessment.
- Key Contractual Risks across the Project Agreement, Construction Contract, Maintenance Contract, Interface Agreement, and Financing Documents.
- Performance Security Packages and Worst-Case Scenarios (Contractor Replacement);
- Design, Planning, Permitting, and Site Conditions.
- Construction Methodology and Schedule Achievability.
- Construction Cost Review and Benchmarking.
- Equator Principles, and other Social/ Environmental Metrics.

During this period, the LTA must be able to work through hundreds of pages of documents to provide a concise and well-developed technical review of the project that is typically delivered in the way of a detailed report addressed to the financing parties.

The LTA must be available as required to respond to any requests or concerns the financing parties may have up until the proposal submission deadline. As the financing costs can often be a substantial part of the total project costs, it is critical that the financing parties are comfortable enough to provide a competitive solution that gives the consortium a leading edge in winning the project. The LTA in developing their analysis and opinion relies on the following:

- Past and ongoing experience with the project team, with similar projects, and with projects in the same geographic area and under the same Owner;
- Unique components of the project including construction feasibility, contract clauses, and site conditions; and
- The schedule, construction cost, and operations/maintenance cost proposed by the consortium.

BOOTS ON THE GROUND

Following a successful Financial Close, the LTA's tasks then transform into a much more hands on and “out-of-office” role. A key aspect of construction monitoring involves monthly to bi-monthly site visits to meet with construction project managers, superintendents, and Project Co staff. This allows for real and accurate proof of works being completed and schedule progress being made.

During this stage, the LTA is also typically responsible for a review and certification of the monthly billing submitted by the Construction Contractor. This coincides with the cash flow actuals being billed on the project and allows the LTA to assess the financial health of the project. Through review of subcontractor invoicing, past experience and knowledge, and visual confirmations on the actual site, the LTA can accurately and confidently agree to the total project costs spent to date.

Additionally, the LTA will be responsible for bringing all this information to the financing

parties in the form of a monthly technical report that typically includes:

- The progress of construction works and a discussion of key project risk areas.
- The value of construction work in place and the estimated cost to complete based on the past months works completed.
- The monthly drawdown application, including comparison of drawn funds against the anticipated cash flow or milestones as required.
- The Construction Contractor's performance against the schedule and compliance with milestone dates, and any anticipated delays.
- Status of key certifications including Interim, Substantial and Final Completion.

If there are any key risks that may impact the longstop date of the project or cause cost overruns, it is expected that these will be included in the LTA monthly certification and reporting for the financing parties to review and evaluate. The LTA will then be responsible for reviewing any recovery or remediation plans put in place by the consortium and how these will mitigate any further risk.

As the LTA will be working concurrently on several projects on a monthly basis, it is critical that the LTA has an efficient and knowledgeable team capable of handling multiple tight deadlines while still providing accurate and detailed information to the financing parties.

WHERE RISK LIES

On complex infrastructure mega-projects, the LTA will most often be asked for their analysis and expert opinion on the following key areas of concern:

- The consortiums approach to delivering the project including past experience on similar projects.
- Unique or complex design or construction issues and how these will be accomplished.
- Presence of key contract clauses to ensure proper relief is provided to the consortium should issues outside the contractor's control

- become evident (supervening events).
- Review of the site conditions to ensure anything atypical has been properly considered by the consortium.
- Assessment of the construction price including benchmarking against comparable projects.
- Assessment of the construction schedule including identification of the Critical Path and all key dates for permits, design, land, and site conditions concerns.
- Evaluation of the schedule float, key contractual dates, and adequacy of the longstop dates for both the Owner and financing parties.
- Contractor replacement calculations including a review of the market for potential replacement parties and the effects on the Performance Security Package for any replacement.
- Long-term views and opinions on the consortium's Operations and Maintenance regime, the proposed cost of these works, and the contractual Payment Mechanism.

KEYS TO A SUCCESSFUL LTA ENGAGEMENT

Understanding the wide extent of analysis that must be completed by the LTA in a short amount of time prior to the bid submission, WT through its various engagements in the LTA space across North America has developed industry leading practices to ensure clients continue to receive confident and timely advice on issues that matter most. These include:

- **AGREE THE CONTEXT** - Review project documents, establish key variables of the deal (services provided, extent of development etc.)
- **ESTABLISH THE BENCHMARK** - Leverage data from other projects in the sector and P3 deals to establish what the project targets (total area (sqft), capex value, functional units, etc.)
- **ASSESS PROJECT CAPABILITY** - Review the various consortium parties; corporate profile, relevant experience, and expertise as well as credit worthiness.

- **REVIEW METHODOLOGY** - Work closely with the Consortium to understand how they will comply with the Contract Documentation, performance standards, payment mechanism etc.
- **OPINE ON TECHNICAL, FINANCIAL AND DELIVERY RISK** - Review base case, down-side and upside case across all facets of the deal including design, construction, operation and interface. Provide meaningful basis for lender's own assessment of risk based on independent opinion.
- **ENGAGE THE CONSORTIUM** - Facilitate early agreement of scope and structured negotiation of competitive pricing across construction and operation.
- **SUPPORT THE LENDER** - Continually liaise with the lender on the progress of the LTA review during each stage of the role.
- **INSTILL CONFIDENCE** - Bring industry deal experience as well as historical technical data to support information-based decision making.
- **ENABLE BETTER CONVERSION** - Bring the best team, data, and experience to each opportunity to deliver embodied due-diligence and a competitive edge to all parties.

WT's analysis is presented in due diligence reports, issued in iterative versions as information provided by the consortium continues to be updated and further assessment is completed. A color coded risk matrix is completed for all key facets of the project that is straightforward and presents of all the major project metrics and facts upfront. Our team is always on standby during the final weeks prior to bid submission with backup resourcing assignments in place to ensure continuity of business during those demanding times.

During the construction phase, WT strives to have local members of our team visit the project monthly, ensuring project billing is up to date and accurate while also confirming the actual status and progress of works. Our team maintains consistent communication with all parties to ensure everyone is informed of key matters and issues affecting the project. Our certifications and reports are issued in a timely manner and contain the most critical information on the project to give the reader an honest but not overly complex review

of the project's status to date.

As the LTA, we continually endeavor to ensure the financing parties are informed and can rely on an independent expert technical opinion for any matters of concern.

WT IN THE MARKET

WT is currently engaged on several major infrastructure projects in North America and globally, as cost consultants, project managers, P3 technical advisors and owner's representatives, in addition to the LTA role.

As a firm that prides itself in possessing the capacity to cover the commercial, environmental, social and engineering disciplines required to carry out the role of LTA, the following list of current and legacy engagements offer a partial glimpse at our expertise:

- I-75 Segment 3 Project, Michigan, USA;
- SR 400 Express Lanes, Georgia, USA;
- QEW Credit River Bridge, Ontario, Canada;
- Scarborough Subway Advance Tunnel, Ontario, Canada;
- New St. Paul's Hospital, BC, Canada;
- Michael Garron Hospital, Ontario, Canada; and
- Macdonald Block Reconstruction, Ontario, Canada.

FOR MORE INFORMATION ON WT's LTA SERVICES AND EXPERTISE, REACH OUT:

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P3 ADVISORY
PROJECT DELIVERY
PROJECT CONTROLS
REAL ESTATE ADVISORY
COST CONSULTING



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