



TRANSIT PROJECTS

A Right of Way Case Study

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Transit Case Study

A testament to team building and problem solving

In North America, there is an increasing demand for major infrastructure projects, especially as our existing roads, highways and bridges surpass their intended life span. In addition to the need for replacing/upgrading existing infrastructure, we also face the need to keep pace with growth requirements and technological changes.

There are two key aspects that impact every project - time and money. The fact is, new projects are expensive and time sensitive, especially when used to stimulate the economy. These projects need to run as efficiently and effectively as possible, and the best way to do that is by managing the project using risk avoidance, team building and team problem solving. A team approach is necessary because it maximizes the skill sets of all the participating disciplines. Using horizontal integration and setting meaningful and tangible goals, the team's flexibility and collaborative approach to problem solving will result in a project that is on time and within budget.

Over the past decade, there has been a movement to manage large projects more effectively and efficiently. The introduction of a Project Management Professional designation (PMP) was seen as a step to manage projects better. Yet, the realty function still has the potential to significantly impede a project. Why does this happen? Is it a lack of knowledge about the realty function or is the realty process simply not integrated into the overall project management? The one fact that is continually overlooked by the project team is that you cannot build anything, anywhere until you have the right to do so.

While this project is only half completed, it has already experienced all the typical issues that affect every other major project. However, this project may be unique in that all the challenges seemed to surface at once.

The Merging Agencies

In 2010, the Province of Ontario merged two provincial agencies into one single transit agency that would be responsible for transit planning and implementation in the Greater Toronto Area and the Golden Horseshoe area. This area has the highest commute times in North America, continually growing and expanding in all directions, making the need for mass and rapid transit improvements a provincial priority. This agency is responsible for funding and managing multiple projects worth billions of dollars, including an \$8 billion light rail transit project and a \$1.5 billion rail expansion project.

The Rail Expansion Project in Ontario included the construction of new commuter rail lines to meet the need for all-day rail service between the downtown core area and urban centers west of the city. It also includes a separate express rail service from the International Airport to the downtown core area. The project is approximately 22 kilometres (roughly 13.7 miles) in length and construction includes four grade separations, construction, expansion or replacement of 15 bridges, as well as the grading and construction of new tracks for both commuter rail expansion and express service.

By late November 2009, the project had all the necessary approvals, environmental clearances and funding. The estimated cost of this project was established at approximately \$1.5 billion.

Initial Project Challenges

The first issues to surface were the organizational challenges arising from the merger of the two agencies. These included rapid growth in the number of projects occurring at the same time, resource shortages, functional integration challenges, roles and responsibilities, and creation and integration of policies and processes in parallel to the project schedule.

With a project of this magnitude, there were many unexpected challenges that arose. For example, as a design-build project, the project team evolved over the first year and was not fully established at the commencement of the project. When the project began, the number of property requirements was virtually unknown. Plus, there was an overall lack of real estate and related resources, which meant there were no contracts in place for support services like survey, appraisal and environmental.

The number of properties affected was difficult to determine. At the time of approval, there were approximately 15 properties identified, but as of December 2012, the total number had risen to 235. Two years into the project, and the type of rights and impacts on the properties were still changing. With a host of obstacles and an insufficient number of experienced realty resources, the in-service date of April 2015 seemed unrealistic.

Where to Begin?

The first step in meeting this enormous challenge was to bring together all the known players and gain consensus that **we** have a problem and unless **we**, as a team, work together and flat line the roles so the functions are integrated and not operating in silos, there will not be any chance of meeting the project requirements. The team clearly recognized that this was not an ordinary project. Rather, it would require innovative ways to meet the realty function. Cooperation within all levels of the organization would be vital to meeting the in-service requirement.

After the initial project meeting, the team was able to prioritize the work based on needs. The team identified a list of priority segments needed and determined exactly when each would be required. However, to work efficiently and effectively, we first needed to put the big picture into perspective by addressing some key questions. These need to be broken into two parts – those specific to the realty function and those to be addressed by the full project team.

Full Project Team: What do we need to do?
 Where is it going to be done?
 Why is it being done?
 When is it being done?

Realty Function: Who is going to do it?
 How is it to be done?

Full Project Team

During an initial analysis of the project, we generated a list of resource requirements. It was determined that the project needs and the short timeline would require experienced realty resources that could work independently and quickly. Since in-house staff with major linear project experience was unavailable, procuring consultants with the necessary qualifications and experience was essential. We also determined which support services would be required to meet the acquisition needs. This would include survey, appraisal, environmental investigation, legal service, real estate brokers and experienced property management.

However, because of the 2010 merger between the two agencies and the combined volume of all the new projects underway at once, there was a limited ability to obtain contract staff to meet the realty and support needs. As a result, a new team was formed with the procurement department and meetings were held to address the process for creating requests for proposals, the timeframe for submission review, awarding contracts and defining who would be doing what. A major consideration in determining who does the work is a thorough understanding of what needs to be done. Each acquisition does not have the same impact.

For example, relocating families is a very sensitive process, and for this project, there were nine residential properties that needed to be purchased in their entirety. To emphasize the complexity, shortly after the nine properties were purchased, another nine were identified. This was widely reported in the media, causing a ripple effect for community relations. Acquiring total holding purchases needs to be considered differently than partial takings. While both can be traumatic, the "taking" of people's homes can be highly emotional and has the potential to impact the project on a political level. Understanding these issues and being prepared for handling them is imperative when assigning who does what.

To date, 31 properties have been identified as total holding purchases. This is comprised of 21 residences, one church, several businesses and some vacant parcels. As of December 2012, all have been completed except one. It is important to note that by creating a team and reviewing processes up front, 68 contracts were awarded by the end of October 2010 covering all disciplines required. This could not have been accomplished without a team approach to problem solving.

The Realty Function

In parallel to addressing the needs of realty to move forward, integrating the realty team into the mainstream of the project needed to occur.

First, the Executive Director decided to hold property update meetings every two weeks. These meetings served two purposes - to provide a status update on property acquisition and to provide a forum to discuss "rub points" and problems. One of the key benefits of holding meetings with all parties is the discussions can lead to finding out "What we don't know - but need to know." These meetings became a valuable tool for learning the problems each function faces and provided an open forum to discuss integrated solutions. A protocol was established where each property requirement would be submitted to realty using a property request sheet with a sketch of the property showing the requirement. These actions created a mechanism where could all work together as equals in a timely manner and provided the basis for identifying the scope and volume of the realty acquisition requirement.

At the realty meetings, both groups shared information and educated their fellow team members not only about the "what" that was needed, but also the "why." Explaining the "why" is crucial, as it creates buy-in to the problems and allows all parties to see why things are critical. For example, the project team requested "tieback" easements along with a sketch. The project team felt these were minor rights and required no further explanation. However, at the biweekly project meeting, it was established that the property requests should provide sufficient information for the realty group to determine the actual rights required. To that end, the team was asked to provide the "what, where, why, when, who and how" information. This not only assisted in determining what rights were required, but it also provided sufficient information to the negotiators so that they could answer property owner questions.

In one case, the initial property request listed a grading and temporary access easement requirement for a bridge expansion. Upon further review and discussion between realty and the project team, it was determined the property was significantly impacted and a total holding purchase was needed instead of a temporary easement.

Once the “who” question is addressed, the matter of “how” needs to be addressed. Setting some parameters and guidelines is essential, as it ensure the team is in a position to adapt to changes in requirements and priorities quickly. A project with moving priorities and requirements can be over-planned, so it is critical to maintain flexibility.

The first question was whether the option to acquire the rights through a legislative process (expropriation) was available. The answer was yes and no. Because the agency was recently formed, the necessary approvals and processes to expropriate had not been obtained or created. This meant the ability to guarantee possession in time was not available. This did not mean expropriation was unnecessary, because the 235 properties affected would necessitate expropriation at some point, but could not impact the critical path for acquisition. Realty met and discussed how next to proceed. We all agreed that a project strategy that encompassed the process and compensation was needed, as well as senior management approval.

To create the strategy, the realty team set the following parameters and guidelines:

- The goal of realty was not to acquire the property rights per se; it was to get the project engineering team building where and when it was
- The approach and methodology for compensation needed to be consistently applied to all property types
- Flexibility in negotiations and acquisition processes was required
- Time is the critical factor followed closely by cost

Once the general parameters had been set, it was critical to meet with the project team again to drill down to a detailed level before the strategy was prepared. First, we asked the project team to prioritize the construction requirements and timelines for property possession.

It is interesting to note that, at this stage, we learned two time-related facts. One was that the 2015 in service date actually meant the construction completion date was 2014, as time is required for testing the systems thereby shortening the acquisition schedule accordingly. The second fact was that the date on the property request was the date construction would start and not the actual required date, which was three months prior. Tendering of construction contracts require property rights be secured prior to issuing of contracts advancing the property requirements by a least three months. If tendering and construction do not occur when required, there are delay penalties for contractors and risk to the in-service dates. The lesson learned is to question and confirm timing requirements so it is clear to all parties.

Another discussion was needed with the construction team to prioritize the minimum requirements for construction. When you are unable to expropriate the properties in time to meet the construction start dates, then you target acquiring sufficient properties side by each that would allow construction to commence while you negotiate for the remainders.

Having obtained this information, the realty team needed to gather intelligence on the community concerns and compensation issues. In tandem with the project engineering team and the community relations team, realty attended all the public information meetings as observers. Our primary purpose was to identify issues relating to compensation and to see if we could determine which property owners would be problematic. This information would help in the strategy preparation.

Solutions by Discipline

Once this information had been collected and prior to the preparation of the realty project strategy, a meeting was called to brainstorm project issues and formulate the strategy going forward. The disciplines attending the meeting were project engineers, project engineering coordinators, appraisers, environmental firms, negotiators, project managers, solicitors and surveyors.

At the meeting, each discipline was able to state their requirements and provide suggestions for making everything work. Each function contributed and each learned something from the other. Suggestions were forwarded, especially in the area of time, cost and owner relations. For example, the surveyors told the engineers they would need to provide profile requirements for underground rights and that full rights to the surface may not be needed. This allowed for profile plans that would help the owners visualize how the property was impacted, and the compensation could be reduced to reflect the actual requirement.

The appraiser was able to identify one section of the project that had 69 owners where there were only two types of requirements, subsurface and surface. The appraiser stated that the base rate for all the properties would be in the same category, vacant land, therefore a book style report for negotiation purposes could suffice rather than individual appraisals. It should be noted this suggestion resulted in a savings of over \$200,000 in appraisal costs with 69 of 69 settlements achieved.

The environmentalists provided realistic requirements for the project rather than investigations of every site. This resulted in time and money savings and a better understanding of environmental risk assessment. The negotiators provided suggestions to address the issues raised at the community meetings and criteria for incentives to obtain early settlements. The topic of incentives was widely discussed, because we would not be able to expropriate, it was imperative that the incentive be worthwhile and time sensitive. The solicitors provided input to standardize documentation that would reduce times for documentation and closings. They also provided the necessary checks and balances for incentives that would not jeopardize potential legal/arbitration issues associated with compensation.

By having all disciplines working together, valuable input was obtained on the needs that enabled the team to meet the requirements, yet provided flexibility. The strategy presented provided the following:

- An acquisition process that was consistent for all types of properties
- Approaches to compensation consistent across the board
- Incentives to early settlement
- Ability to acquire the rights without settlement on terms agreeable to both parties

As of December 2012, over 80 percent of the properties have been acquired, and construction has commenced in all areas. There are still major issues regarding construction and property acquisition, including not having all the properties on time. To add to the mix, new property issues are continually identified, such as lay down requirements, encroachments and damages where property rights are not required.

Since this is a real-time project, new issues, problems and requirements are addressed every day. Even though these hurdles are unexpected, the flexibility built into the strategy and the team approach to problem solving will carry the day and get this project done.

Summary

One of the key factors contributing to the project's success to date has been the biweekly status meetings, where there is free flowing communications between realty and the project team. This new process—where all the team players understand the needs and roles of the other team members—was a breakthrough. And now it is being integrated into other projects.

While this is a unique project, the lessons learned about flat lining and integrating the team horizontally, while respecting and valuing each team member's function, has contributed to our success to date and can be applied to future projects. If we take the lessons learned and apply them to all projects, realty could move out of the high risk area and earn that seat at the table.