

Capital Projects Update

by Jamie Koistinen

October 2017



Topics in this issue:

- Update of Project Status
- Project Schedule and description of work
- Interior Renderings of Council Chambers and Community Hall
- Elder's Complex Consultation/Update

Construction Management Team (CMT)

Chief Arnold Paul

Virginia Paul - Executive Director

Jamie Koistinen - Capital Projects Manager

Vicky Blake - Finance Manager

Tom Mathias - Community Infrastructure Manager

Duane Paul, Tyler Paul and Bob Farr - Community Members

Past Issue Summary

Hi Everyone

In the last update we covered how the Consultant Team was selected and let it be known who pays who and who is who. Here's a little recap in case you missed the last update. The Consultant Team consists of the Architects and their Engineering/Consultant support team. The Consultant Team makeup includes a Code Consultant (both fire and building) - Ontario Building Code-OBC) a Kitchen Consultant and 4 types of engineering expertise, Mechanical, Electrical, Civil and Structural. Each work together to complete the contract documents and their services will be required throughout the entire project. Contract documents include things like drawings (D), material (M) and product specifications (S) ensuring that each (D,M,S) meet statues, regulations and codes.

We had reported that LEA Architects had entered into contract with A2s and Associates Limited - a firm located in Sudbury that will be providing the Structural Engineering. Anrep Krieg Desilets Gravelle Consulting (AKDG) a firm located in North Bay, will be providing the Civil, Mechanical and Electrical Engineering services. Ryan North Consulting will be utilized from time to time for review of the Ontario Building Code as well as the Fire Code. Van Velzen + Radchenko Design (kitchen) were utilized to design the commercial kitchen in the Gathering Room as well as specify all the products, appliances and material required in the kitchen.

The Architects (LEA) coordinate the services of all of the Consultants, (A2s, AKDG, Ryan North, and Kitchen) Temagami First Nation entered only into contract with LEA but was actively involved with the selection of the Consultant Team.

We had also previously presented how each of the fees were determined by using "The Guide to Determining Appropriate Fees for the Services of an Architect" published by the Royal Architectural Institute of Canada (RAIC) which oversees the provincial regulatory bodies in Ontario, known as the Ontario Association of Architects (OAA)

As shown below we introduced the main 7 main parts of the entire project (schematic design, design development, construction documents, prequal, and so on) We also discussed

- a rough idea of how long each of the 7 segments of work would take
- the steps or work required to complete each of the 7 steps was also outlined .
- breakdown of fees for each of the area of work (per discipline).

And now for the update

Overall view of the Project Schedule to be discussed throughout

	2017												2018												2019		2020
	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	JUL	JUL				
SCHMATIC DESIGN W CONSULTANT TEAM																											
DESIGN DEVELOPMENT																											
CONSTRUCTION DOCUMENTS																											
PREQUALIFICATION																											
CONSTRUCTION PROCUREMENT																											
CONTRACT ADMINISTRATION																											
Start of Construction																											
POST CONSTRUCTION COMMISSIONING/ ONE YEAR WARRANTY REVIEW																											

Will Start in Spring of 2018 and be completed by July 2019

Project Schedule Continued ...

Let's further breakdown the Design Development

DESIGN DEVELOPMENT	Status
Consultant Team prepares Design Development Drawings (incl. Site Plan, Floor Plans, Building Sections & Elevations & Outline Specifications.	Complete
Architect conducts Consultant Team Coordination Meetings.	Various meetings held
Consultant Team reviews of all applicable codes.	Ryan North Consulting
Consultant Team prepares and Submits Progress set for costing package.	Catalogue cuts
Preparation of Preliminary Class 'C' Cost Estimate by Owner commissioned Quantity Surveyor.	Submitted Aug 25, 2017
Review of Estimate by Consultant Team.	Week of Sept 4 &10, 2017
Received Final Class 'C' Estimate.	Received Sept. 15, 2017
Client reviews documentation and provides written approval to proceed to next Phase.	Submitted Sept. 19, Received Sept 21,2017

At the July 10th community info session I had explained that as we progressed TFN would need to engage an independent Quantity Surveyor to prepare the initial "Class C" estimate and we would use the firm to complete the later required 'Class A' estimate.

On August 28th TFN sent out an Request for Quotation (RFQ) to Quantity Survey firms. A.W. Hooker was selected to complete the work, here is a breakdown of his fees. The acceptance of his quote was also motioned in a duly convened Council Meeting in September.

Cost Estimate Deliverables and Associated Fees

Schematic Design Class 'C' Estimate.....	\$4,800
Pre-Tender Class 'A' Estimate	\$7,500
Total Fixed Fees (excluding taxes and disbursements).....	\$12,300

What is a 'Class C' and a 'Class A'? What do they determine ?

The quality and accuracy of estimates depends on the level of advancement of the design for the project. For this reason, different sets of cost estimates will be prepared at different stages of design development. At an early stage, estimates will be at a high level. As the design becomes more specific with needs and requirements identified, more detailed cost estimates directly linked to the design specifications will be prepared.

As the project definition and design evolve, cost estimates become more accurate. The 'Class C' cost estimates provides a level of cost accuracy of +/-15%, which typically requires that they be prepared on the basis of a **Schematic Design**.

A **Schematic Design** encompasses plans, elevations, sections, and catalogue cuts of materials that generally represents 30% design completion. These inputs are used by Quantity Surveyor to prepare a Schematic Design Estimate, which is at a Class C level. This approach allows for the development of project cost estimates for decision-making - once the numbers come in it give us an idea of where we sit - we then know if we have to drastically reduce costs or if the products we chose is something we can afford to build.

Class A estimates are pre-tender estimates, based on completed **Construction Documents** and detailed specifications contained in tender documents. They are expected to be quite accurate, within 5-10% of the actual awarded contract price. Due to the fast paced, accelerated project schedule we will be going for a Class A - once the Construction Documents are 90% complete. It is of the professional opinion of our consultant team that going for the Class A at 90% completion of the **Construction Documents** will still yield an estimate that will be within the targeted +/- 5-10% of the awarded contract price.

How was the amount of the Class C actually determined ??

I'm often asked **"So how much will the building cost to build?"** in the previous months when I answered I can't tell you that yet - you may have felt like I was withholding information - it was not the case ... I'm going to use an analogy of preparing a Christmas Turkey Dinner, to explain the rationale on why I couldn't answer you at that time. This analogy also illustrates what needs to be determined prior to completing a "Class C" estimate

Let's assume you are in charge of preparing your turkey dinner with all the fixings this year. I want you to tell me right now - how much will this meal cost you to make? But before you do, know that the cost also has to be within 10% of your initial budget you have for this meal. So how much will the meal cost? I think you could agree that in order to begin to calculate the cost we would have to figure out a few key points first ... The series of questions in determining the cost of the meal is somewhat mimicked in the design development stages and each answer is necessary in determining how much the building will cost. So here we go !!

How many people will be attending dinner? I think you could agree that this number will definitely affect the overall price - it would cost you more to prepare a meal for 250 people vs only 6 people. For the building the rationale is how many square feet, which we know is approximately 16,500 sq/ft

What are you serving? The menu will consist of an appetizer, turkey, stuffing, mashed potatoes, carrots, cranberries, gravy and dessert. When applying this question to the building - what is included in the building. As you know this building will be an administrative building, which has a gathering hall, commercial kitchen, store, library, artifact display area, local artisan display area, and so on.

What cut of meat or quality of ingredients are you serving? Is this a utility bird or a primo Butterball? Organic vegetable or not? Is your desert chocolate cake or some seven layer of heaven dish? This question applied to the building is like asking what kind of flooring are we going with? Those stick on tiles, ceramic, hardwood - lots to choose from and each product varies in cost. Things to consider when choosing a product is durability vs price. What's your bang for your buck?

What are the ingredients required? And what does your shopping list entail? Now that you know how many you are serving, what your serving, and the cut and quality of ingredients you can attempt to detail your shopping list. So how many turkeys do we need, how many bags of carrots, your list should include every last ingredient and the quantity needed, right down to the corn-starch required for your gravy. Now for the building the CMT, and Chief and Council were given a series of catalogue cuts from the design team. Catalogue cuts are product specification (ingredients if you will) - and the for the purposes of pricing out the class C estimate we needed to define what our ingredients were as well as the quality of the ingredients. Catalogue cuts and QUANTITIES of each were identified for every building material that will be used during construction, from insulation all the way to plumbing fixtures. This level of detailing is required to finalize not only the cost of the material but also to factor in the cost of equipment and labour to install/construct such material.

We know that the initial budget of this project was \$5.7M. For the purposes of keeping the contractor bids competitive I can't tell you the actual price that the Class C estimate yielded; what I can tell you is that the price was within the targeted +/- 15% which is why Council motioned based on the recommendations of the CMT to proceed to the next segment of work **Construction Documents**.

Before we get into Construction Documents we're going to skip ahead to Prequalification.

PREQUALIFICATION	Dates completed and/or Targeted
Architect prepares Prequalification Document for Generals and M/E Subcontractors.	
Architect issues the Request for Pre-Qualification for TFN review.	Week of Sept 25, 2017
Prequalification RFP posted on MERX and the Canadian Construction Associations Plan Boards in Sudbury, Timmins, Barrie and North Bay offices	9-Oct-17
Architect issues Reference Questionnaires for scoring.	9-Oct-17
TFN to advertise local trades workshop in local papers. North Bay Nugget, Temiskaming Speaker and Anishinabek News	9-Oct-17
Prequalification closes	26-Oct-17
TFN, Architect & Consultant team reviews, evaluates submissions and scores prequalification submissions - scheduled for Nov 3 in North Bay at LEA office	3-Nov-17
Architects advises General Contractor and mechanical and electrical proponents as to whether or not they have successfully prequalified.	Week of Nov 6
Architect modifies the specifications of the CONTRACT to include list of prequalified General Contractors and M/E subcontractors.	Week of Nov 13
Architect/TFN conducts Workshops/Presentation with Interested local trades.	Week of Nov 27

Before posting on the MERX website a Pre-qualification document was created and reviewed by the Consultant Team, CMT and Chief and Council. It was then posted on the MERX website and the plan boards as indicated as above.

MERX is a website which is also Canada's leading electronic tendering service. MERX provides opportunities to bid on tenders from the Canadian public sector, or from Canadian Agencies, Crown & Private corporations. MERX has leveled the playing field so that businesses of any size can have easy and affordable access to billions of dollars in contracting opportunities.

The Canadian Construction Association (CCA), represents more than 20,000 Construction firms drawn from 64 local and provincial integrated partner associations. Posting the Pre-Qualification in their Plan Board rooms, is another method of enticing more contractors to bid on this project.

Tenders awarded only having receiving three or less submissions historically tend to have a much higher risk of an overrun in cost when compared to the budget established in an estimate. By reaching out to more contractors posting on MERX and CCA plan boards we are taking steps to ensure we are receiving competitive bids from adequate bonafide contractors which lessens the overall risk for TFN.

We are optimistic that this method will yield 6 competitive bids from contractors at a major trade level.

Architect/TFN conducts Workshops/Presentation with Interested local trades. - What's the rationale behind this step? Should any local contractor be interested in being part of the project who did not score high enough to make the list of Pre-Qualified General Contractors (GC), we wanted to provide an opportunity to network with some of the potential GC's to explore the possibility of the local contractors becoming a subcontractor to the potential GC's.

CONSTRUCTION DOCUMENTS	Target Dates
Architect prepares potential Alternate Prices, Add On Prices & Unit Prices.	
Architect prepares Bidding Information & Construction Contract Conditions.	
Consultant Team prepares and submits 90% Progress set for costing.	
Preparation of Preliminary Class 'A' Pre-Tender Cost Estimate by Owner commissioned Quantity Surveyor (A.W. Hooker)	Week of Nov 13, 2017
Review of Estimate by Consultant Team.	Week of Nov 20, 2017
Review of Final Estimate By Client.	Week of Nov 26, 2017
Civil, Structural, and Mechanical/Electrical Consultants submit to LEA 100% Contract Documents.	Week of Nov 26, 2017
Architect finalizes the 100% Contract Documents.	Week of December 3, 2017
Client reviews 100% documentation combined with the Class A estimate & provides written approval to proceed to tendering.	Week of December 10, 2017

Right now at this stage in the project, we have received the Class C tender and we are at the current step **"Architect prepares potential Alternate Prices, Add On Prices & Unit Prices."** this is where we review areas in the estimate and look at potential areas of risk, cost savings and areas where we can improve the quality selection of some of our catalogue cuts. This step is taken to ensure we are going to build something we can actually afford and more so that the tender results come in within the allowable budget.

Looking Further ahead the next segment of work is **CONSTRUCTION PROCUREMENT**
better know as the Tender Phase

- We are aiming to send the tender to the Pre-Qualified Contractors during the week of December 10th, 2017. The tender will "close" during the week of January 15, 2018 and awarded by the end January 2018. This is in-line with the original schedule shown on Page 2 of this newsletter.
- I am happy to report that at this current time we are actually ON SCHEDULE and July 2019 is in the foreseeable future
- July 2019 is the target date to have a fully constructed Multi-Use Facility !!

Anyone want to see a sneak peak of what the inside might look like ...



Interior Rendering - Gathering Room
Temagami First Nation Multi-Use Facility
 Bear Island, ON
 October 2017

ABORIGINAL DRUMMING
 The Eight Thunderbird Singers, led by Jamie Savills from Bear Island, honours the song styles of the Temis-Augama Anishnabai (Deep Water People) as well as songs from diverse nations and pow-wow styles. This group shares an important role in keeping the drum for the community of Bear Island.

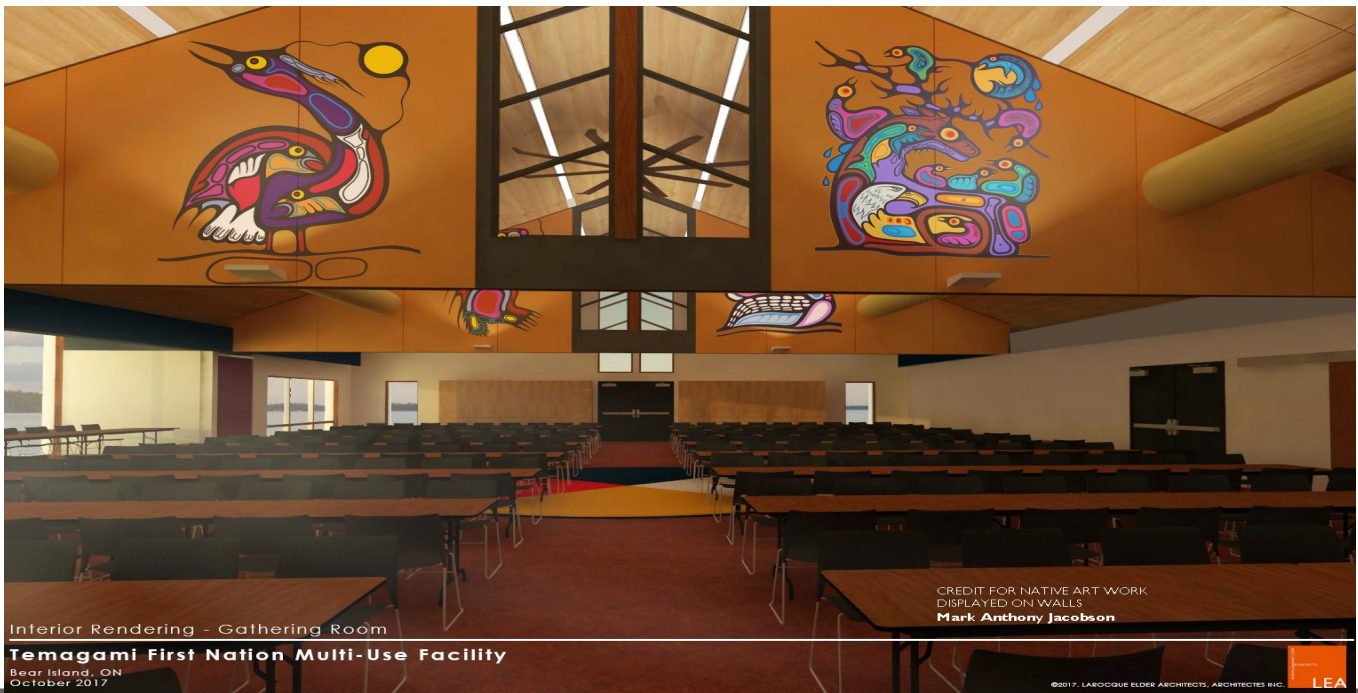
**CREDIT FOR NATIVE ART WORK
 DISPLAYED ON WALLS
 Mark Anthony Jacobson**

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This rendering is to give you a true representation of the views of the new Community Centre – the material you see before you is actually what the completed product will look like – colours and all (well subject to change should we decide to of course)

Also the areas that are displaying native artwork is where I was thinking we could engage some of our local artists and this is to show all you artists the “canvas” that will be available for you to showcase your work here in the community for decades to come.

The Drumming circle was to illustrate the types of activities that can take place inside the hall. Anything from movie nights, Round Dances, winter carnivals, Christmas Dinners, this place is built for sound as the ceilings and dividing walls are intergraded with acoustical panels



Interior Rendering - Gathering Room
Temagami First Nation Multi-Use Facility
 Bear Island, ON
 October 2017

**CREDIT FOR NATIVE ART WORK
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Interior Rendering - Council Chamber

Temagami First Nation Multi-Use Facility

Bear Island, ON
October 2017

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This rendering is to give you a true representation of the views of the new Council Chambers– the material you see before you is actually what the completed product will look like

In earlier community consultations it was suggested that above the council table, the 7 Grandfather Teachings could be displayed, another concept was, that we could have four panels above the table, and displayed on each of the 4 panels would be pictures of significant moments that occurred throughout our history, both options were to remind leadership to be mindful of those teachings or moments in time while at the table, to ensure they making the best decisions for our community.

WHICH ONE DO YOU'S LIKE BEST ? - would love to hear the answer - let me know at Jamie.Koistinen@temagamifirstnation.ca



Interior Rendering - Council Chamber

Temagami First Nation Multi-Use Facility

Bear Island, ON
October 2017

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Now lets talk about the Elder's Complex Consultation that occurred on October 17,2017

A little background info ... TFN accepted a operational loan of \$1.6M in 2014 from Canada Mortgage and Housing Corporation (CMHC) to construction 10 - 2 Bedroom apartment units - at that time TFN also set aside \$500,000.00 towards a Common Room for the Elders Complex that would compliment the 10 units. There is approximately \$395,000 remaining from that \$500,000 investment plus the whole \$1.6M

On the cover of this newsletter is the site plan that was presented to the Elders that attended. The big yellow building we've seen before ... it's the outline of the Multi-Use Facility (MUF)

What's new to this site plan is the 5 orange rectangles you see to the right of the MUF was a newly proposed location to build the 10 units. You are looking at 5 duplexes each with a lower and upper apartment.

There are a few pro's and con's to this new location which will be discussed more in depth over the next series of consultations with the Community

Before we can determine if this location is a viable option we had to engage a surveyor to complete the survey on Lot 65 and 21 to ensure that the sewer line is in the location as indicated by the blue line that you see. Paul Goodridge of Goodridge Goulet Planning and Surveying was here in the community on October 26th completing this survey. Once the survey results are in the next step is a soil sample that will be performed by Englobe.

More information from the initial consultation will be presented over the next info sessions as well as the newsletter updates that will be produced. There is a lot of activity scheduled over the next couple of weeks in Capital Projects, so much so that I am considering creating a Facebook page to provide members with sooner updates. I will be attempting to create one - please watch for the Facebook Page updates.



The next page is an example of the proposed upper and lower floor plans



Lower Floor Plan

Temagami First Nation Proposed Housing Development

Bear Island, Ontario
September 2017



17043

not to scale
Larocque Elder Architects, Architects Inc.



Upper Floor Plan

Temagami First Nation Proposed Housing Development

Bear Island, Ontario
September 2017



17043

not to scale
Larocque Elder Architects, Architects Inc.



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OCT 2017



**Temagami First
Nation**

In Summary

I have a meeting with Chief and Council on November 8th, 2017. At this meeting I will be providing them with a summary of the initial consultation that took place and scheduling further community consultations with their presence at the meetings

I will also be discussing these items at that same meeting

- Results of preliminary consultations with the elders that took place on Tuesday the 17th – coordinate some dates for community consultations and provide you with the questions that they will be seeking answers to
- The results from the survey and should the sewer line not interfere with the spacing of the units we will engage Englobe to complete the soil samples.
- Review of the OAA agreement for the architectural services of the same design team (the same design team have submitted a price to me for the elders complex) will require decision of council as a whole if we are going to proceed with the same team
- MUF – results of those contractors who prequalified and the following steps regarding invitation to bid – prequalification closes on Oct 26 and the results from the review/scoring of contractor submissions taking place in North Bay on November 3rd

Please watch for the next Community Info Session Dates that will be happening over the next coming weeks - Hope to see you there.

If you have any questions on the material please contact me at the Lands and Resource Office 705-237-8600 or by email