

Capital Projects Update

by Jamie Koistinen

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Construction Management Team

Chief Arnold Paul

Virginia Paul - Executive Director

Jamie Koistinen - Capital Projects Manager

Vicky Blake - Finance Manager

Tom Mathias - Community Infrastructure Manager

Duane Paul and Tyler Paul - Community Member

NEW MEMBERS TO BE ANNOUNCED

So what are the steps and timelines of the Schematic Design ?

Milestone Dates	MAY			JUN			JUL					
	16	22	29	6	12	19	26	3	10	17	24	31
SCHEMATIC DESIGN W CONSULTANT TEAM												
Client conducts Start-Up Conference call, Architect prepares Minutes.												
Architect conducts bi-weekly meeting with Client at LEA office and updates minutes.												
Architect conducts Consultant Team Coordination Meetings												
Mechanical/Electrical Consultant participates on conference call with TFN mechanical systems consultant.												
Consultant Team reviews Project Budget.												
Consultant Team prepares Preliminary Design Brief outlining Architectural, Civil, Structural, and Mechanical/Electrical systems and Kitchen Equipment layout and Building Code Review												
Architect and M/E Consultant conduct Client Meeting to Describe Proposed Design & Operation of Heating, Ventilation and Building Control Systems and Architect prepares meeting minutes.												
Architect confirms Inventory of F& E- newly purchased and re-use items.												
Consultant Team prepares preliminary line drawings of proposed structural/mechanical/electrical systems.												
Architect modifies design drawings to reflect systems and Kitchen consultant input as required and further develops design drawings.												
Consultant Team reviews Project Budget.												
Consultant Team submits 100% Schematic Design Package to Client for approval												
Client reviews documentation and provides written approval to proceed to next Phase.												

Here's a little more detail of what is included in the steps above

Schematic Design Documents - Based on the *Client's* approval of the preliminary concept design, mutually agreed upon Program of Requirements, schedule and budget for the *Construction Cost*, prepare for the *Client's* review and approval, schematic design documents to illustrate the scale and character of the *Project* and how the parts of the *Project* functionally relate to each other including as appropriate:

- Site Plan
- Spatial Relationship diagrams
- Floor Plans
- Elevations
- Building Sections
- Outline Specifications

As you may have seen the site plan and floor plan have already been shared with the community. But now that we have engaged the remainder of the **Design Team** (Mechanical, Electrical, Structural and Civil Engineers) their input now has to be factored into the preliminary plans as well.

Who are the Design Team ?? Keep reading ...

Project Schedule Continued ...

Milestone Dates	MAY		JUN		JUL			AUG		SEP		OCT		NOV		DEC															
	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	4	11	18	25	2	9	16	23	30	6	13	20	27	4	11	
DESIGN DEVELOPMENT																															
Consultant Team prepares Design Development Drawings (incl. Site Plan, Floor Plans, Building Sections & Elevations & Outline Specifications.																															
Consultant Team reviews of all applicable codes.																															
Consultant Team prepares and Submits Progress set for costing package																															
Preparation of Preliminary Class 'C' Cost Estimate by Owner commissioned Quantity Surveyor.																															
Review of Estimate by Consultant Team.																															
Client reviews documentation and provides written approval to proceed to next Phase.																															
CONSTRUCTION DOCUMENTS																															
Consultant Team prepares Contract Documentation (incl. Site Plan, Floor Plans including F& E layouts, Sections, Elevations, Details, Schedules & Specifications.																															
Architect conducts Consultant Team coordination meetings.																															
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.																															
Review of Estimate by Consultant Team.																															
Review of Final Estimate By Client																															
Civil, Structural, and Mechanical/Electrical Consultants submit 100% Contract Documents																															
Architect finalizes the 100% contract document set																															
Client reviews documentation and provides written approval to proceed to next Phase.																															

During the Design Development Stage - The first draft of the design development documents are created. This is essentially the drawings and other documents and specifications that describe the size and character of the project which include all the appropriate architectural, structural, mechanical and electrical systems and building materials. Basically this is where the CMT team will assist on choosing what type of building materials we would choose for the roof, siding, flooring etc.... Once all of that information is determined the Construction Documents phase will begin. Once the Construction Documents are finalized and approved in December we will be able to go out to tender in January of 2018. As shown on the Project Schedule Overview on page 2 - the Prequalification of Contractors is scheduled to be done in late fall of 2017 and we are hopeful to award the construction to a General Contractor in February 2018 allowing the successful contractor the opportunity to mobilize making use of the winter road and construction to start as soon as the weather and lake allows.

THE SELECTION OF THE DESIGN TEAM AND FEES

At the Special Council Meeting (SCM) of June 22nd a motion was approved to engage the services of Larocque - Elder Architects (LEA) and **their** selected Design Team or the complete Design Development and Contract Administration during the development and construction phase of the Multi-Use Facility.

What exactly does that statement mean? TFN only has one contract with LEA. LEA is responsible and has engaged through contracts the remaining of the Design Team.

LEA has 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) will be providing the Civil, Mechanical and Electrical Engineering services throughout the project. Ryan North Consulting will be utilized from time to time for review of the Ontario Building Code as well as the Fire Code.

How are the Fees Determined ??? First the Building Category needs to be determined. Then the overall project budget and complexity of the building is taken into consideration

CATEGORY		
1	1.1	Warehouse
	1.2	Barn, Stable, Storage building, Shed, Kennel, Animal Shelter
	1.3	Self-service Storage Building
2	2.1	Multiple Unit Residential Building (Apartment, Condominium, Dormitory, Townhouse, etc.)
	2.2	Summer Camp, Park Building, Resort Building (Building Shell only)
3	3.1	Armed Forces Base, Barracks, Armoury, Drill Hall
	3.2	Bowling Alley, Dance Hall
	3.3	Motel and Apartment Hotel
	3.4	Marina, Recreational Pier
	3.5	Maintenance Building, Service Garage, Service Station, Car Dealership
	3.6	Administrative Office Building, excluding tenant layouts
	3.7	Mercantile Buildings for Business and Personal Services including Store, Shop, Barber and Hairdressing Shop, Supermarket, Shopping Centre, Department Store, but excluding tenant layouts
	3.8	Student or Institutional Residence, Senior Citizens' Apartment
	3.9	School – Kindergarten and Elementary School
	3.10	Industrial Building (such as light manufacturing)
	3.11	Specialized Agricultural Building
4	4.1	School – Junior, Middle and Senior High School
	4.2	Post Office and Financial Customer Service Centre (such as Bank Branches)
	4.3	Grandstand, Stadium
	4.4	Convention Hall, Exhibition Building
	4.5	Manufacturing, Processing or Specialized Storage Facility
	4.6	Drycleaning Establishment, Laundry
	4.7	Dairy and Creamery, Distillery
	4.8	Specialized Housing including high-level residential support, Retirement Facility, Shelter for Homeless, Shelter for Women
	4.9	Animal Clinic
	4.10	Police Station, Fire Station, Ambulance Facility
	4.11	Hotel, Complex Motor Hotel
	4.12	Club: Town, Country, Sports, Health
	4.13	Community Centre
	4.14	Freestanding Parking Structure

The Multi-Use Facility would fall under a Category 4 when determining the Building Category

The above picture is a snapshot from "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 its known as the Ontario Association of Architects (OAA) All certified architects licensed to practice architecture in the province of Ontario are members of the OAA.

The chart below can also be found in the RAIC handbook.

Factoring that the Multi-Use is under the Building Category 4 and the overall project value is above \$5,000,000 and given the location of the project we fall under the complex category. Which means that the basis of overall architectural fee inclusive of the engineering services would be approximately 11.84% of the construction value of the project.

Base Percentage Fee by Building Category (in millions) – New Construction
WITH Basic Engineering (structural, mechanical and electrical ONLY)

CONSTRUCTION COST:		< \$500,000	\$500,000 - 1M	\$1M - 2M	\$2M - 5M	\$5M - 10M	\$10M - 25M	\$25M - 50M	\$50M - 100M	\$100M - 250M	\$250M - 400M	\$400M - 500M
BUILDING CATEGORY	COMPLEXITY	To be negotiated with minimum base fee of										
1	simple	8.80	6.90	6.45	6.51	6.37	6.18	5.90	5.60	5.37	5.08	4.97
	average		7.80	7.50	7.40	7.20	7.00	6.80	6.60	6.40	6.10	6.00
	complex		8.70	8.55	8.29	8.03	7.82	7.70	7.60	7.43	7.12	7.03
2	simple	9.80	8.67	7.67	7.14	6.95	6.99	6.69	6.55	5.75	5.48	5.37
	average		8.80	8.50	8.40	8.20	8.00	7.80	7.60	7.40	7.10	7.00
	complex		10.28	9.33	9.66	9.45	9.01	8.91	8.65	9.05	8.72	8.63
3	simple	10.80	8.86	8.44	8.36	8.23	7.94	7.75	7.51	7.34	7.06	6.95
	average		9.80	9.50	9.40	9.20	9.00	8.80	8.60	8.40	8.10	8.00
	complex		10.74	10.56	10.44	10.17	10.06	9.85	9.69	9.46	9.14	9.05
4	simple	11.80	9.45	9.00	8.82	8.56	8.39	8.11	7.90	7.69	7.41	7.29
	average		10.80	10.50	10.40	10.20	10.00	9.80	9.60	9.40	9.10	9.00
	complex		12.15	12.00	11.98	11.84	11.61	11.49	11.30	11.11	10.79	10.71

How was the CONSTRUCTION VALUE OF THE PROJECT determined ??

Using the costs of similar projects and newly constructed buildings the architects were provided with a figure of \$4,900,000.00 which represents the construction value of the project. This figure was used as a basis of determining their fees.

The Fees are as follows...



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The 3Phase Hydro Update

At the Regularly Scheduled Council Meeting of July 5, 2017, Chief and Council entered into contract with Hydro One to bring 3Phase power to the community.

Chief and Council was pleased with Hydro's generous cost sharing of this project. The overall project value was \$1,106,041.95 leaving a capital contribution from Temagami First Nation of \$299,988.84. However there is a Capital Cost Recovery Agreement over 10 years. If the combined costs of both the Multiuse Building and Elder's Building do not reach \$64,535.00 we will have to cover the difference. Example, the annual hydro cost for both is \$45,000, in addition we would have to pay another \$19,535. Still the total estimated for bringing 3-Phase including the Capital Cost Recovery Agreement should exceed the budget of \$650,000.

This will be explained more thoroughly at the next Community Update which is scheduled at the school on July 10th. 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



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