

FIRE STAFF REPORT

FSR-007/2020

TO: Mayor Gibson and Members of Council
FROM: M. Alcock, Fire Chief/CEMC
DATE OF MEETING: May 14, 2020
SUBJECT: Project Delivery Models and Draft Central Fire Station Project Charter

RECOMMENDATION(S):

THAT Report FSR-007/2020: Project Delivery Methods and Draft Central Fire Station Project Charter be received as information;

AND THAT the project proceed utilizing a Design-Bid-Build project delivery model;

AND THAT a Request for Proposals be undertaken to select suppliers for design and engineering works associated with the new facility;

AND THAT a Request for Quotation/Tender be undertaken to select a general contractor for the construction of the new facility;

AND THAT Fixed Price Contracts be utilized as the preferred type of contract;

AND THAT the Project Charter, attached as Appendix A to this report, be approved by Council.

EXECUTIVE SUMMARY:

This report includes information detailing the various types of project delivery models and options in relation to procurement and contract options for the construction of a new Central Fire Station for the Township and presents a draft Project Charter for Council consideration to outline the future progression of the Joint Emergency Services Facility Project.

BACKGROUND

Report FSR-006/2020, Central Fire Station Project Chronology, provided a detailed review of the various actions undertaken by the Township to realize the construction of a new Central Fire Station and Joint Emergency Services Facility during Council's current term of office. These efforts continue the actions initiated by previous Councils

to improve the delivery of fire services to the residents of the Township dating back over 10 years, including a Master Fire Plan presented to Council in June of 2013.

While the COVID-19 Pandemic State of Emergencies as declared by the Province of Ontario, the Region of Niagara and the Township of Wainfleet have slowed the pace of progression on the project, this report will serve to provide all Members of Council with information and options outlining steps necessary to continue to move the project forward and to formalize and make transparent future action to be taken with respect to the project.

OPTIONS/DISCUSSION:

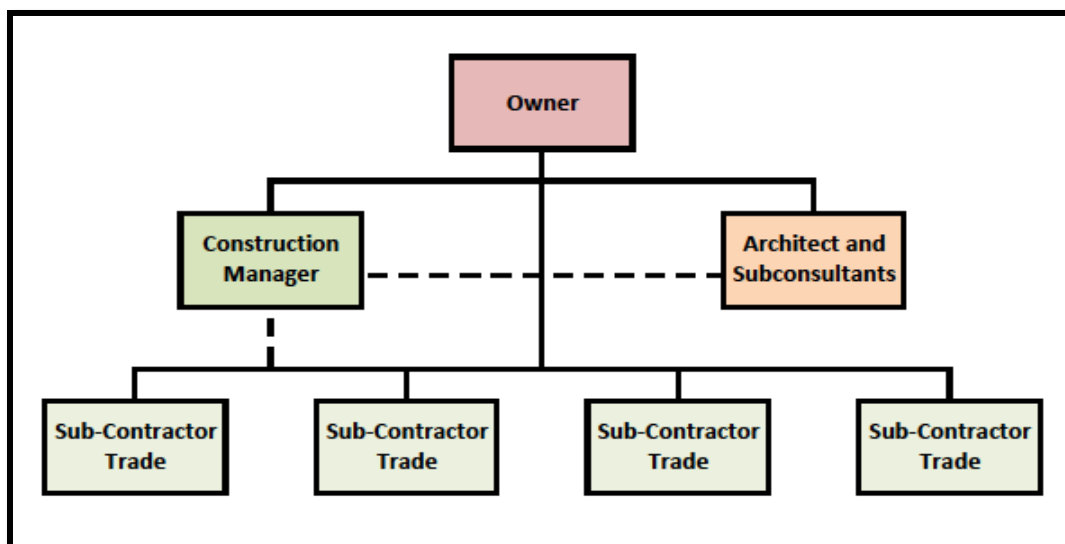
There are many different styles of conducting large project management and municipal procurement.

What Project Delivery System	What Procurement Method	What Contract Type
<ul style="list-style-type: none"> • Construction Management • Design-Bid Build • Design Bid 	<ul style="list-style-type: none"> • RFI, RFP or RFQ • Sole Source • Single Source 	<ul style="list-style-type: none"> • Fixed Price (lump sum) • Reimbursable (cost plus) • Unit Price

PROJECT DELIVERY MODELS

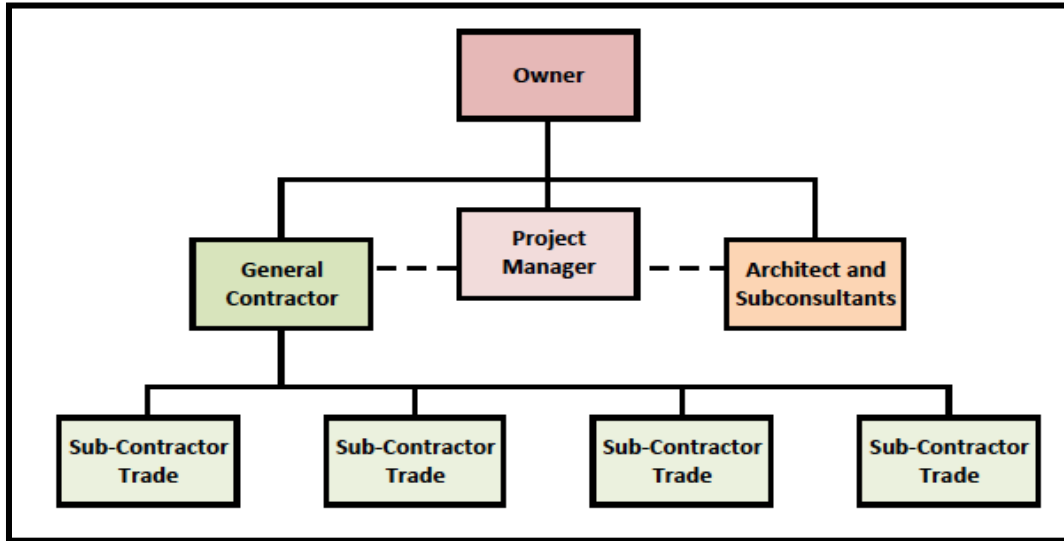
Construction Management

- Construction Manager acts as an advisor to the Owner with no General Contractor involved
- Owner acts as General Contractor
- Owner contracts with all sub trades, suppliers and vendors
- Owner retains Architects and all sub consultants.



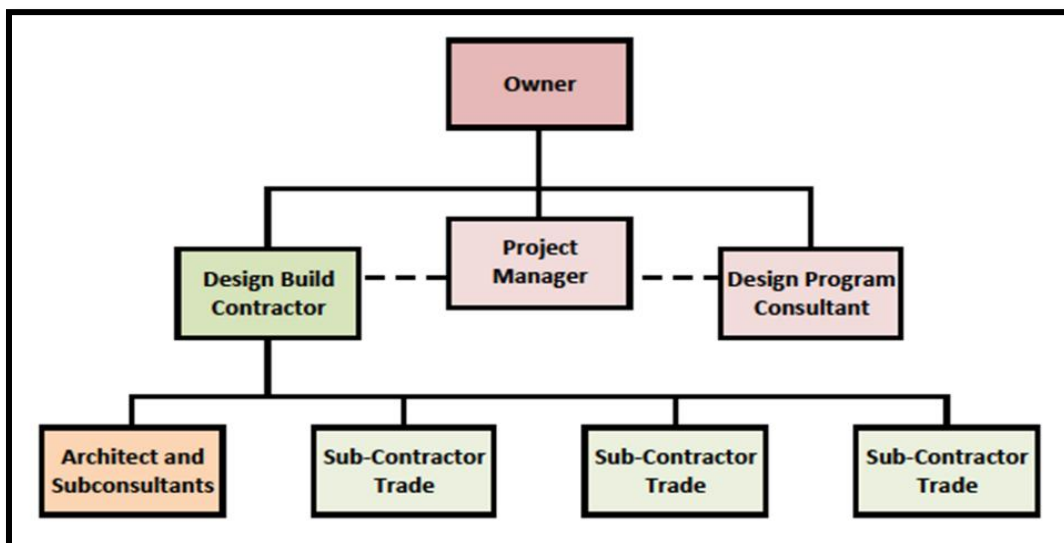
Design-Bid-Build - Recommended

- Owner contracts with separate entities for the design and construction of a project.
- Traditional Construction method
- Owner retains services of an Architect and sub consultants to undertake design phase
- Owner retains General Contractor who is solely responsible for construction phase and all sub trades and vendors.



Design-Build

- Design and construction services are contracted by a single entity known as a design-build contractor
- Owner outlines project design “requirements”
- Design build contractor retains architect, sub consultants
- Design build contractor retains all trades and vendors
- Work can commence without design being completed.



Chose a delivery method to meet your needs

- Assess your constraints
- Assess your resources
- Determine quality standard
- Funding availability
- Time management
- Scope



PROCUREMENT METHODS

In the case of a large project such as a Fire Station, “Single Source” and “Sole Source” would not be acceptable options for open and transparent governance and fiscal responsibility.

Choice of Documents – Appendix ‘B’

- Request for Information (RFI)
- Request for Proposal (RFP)
- Request for Quotation/Tender (RFQ/RFT) - (Tender)

Request for Information (RFI)

- Method of collating information from different vendors prior to formally sourcing products or services
- Many vendors, not enough information is known about them
- Long list of vendors reduced to a short list who will fulfill needs.
- To compile detail about potential suppliers and their capabilities
- To advise potential suppliers that you intend to source this product or service competitively
- To show that you are acting fairly and including all participants
- To gather information in a way that decides the next step.

RFI Components

1. Table of contents
2. Introduction and purpose of the RFI
3. Explanation of scope
4. Abbreviations and terminology
5. Template to complete
6. Details of next steps - RFP or RFQ or Tender Call.

Request for Proposal (RFP) – Recommended for Design & Engineering

- Preparation of the RFP is important and time spent at this stage will ensure good responses.
- Often an information meeting is held to brief suppliers and answer any questions.
- An RFI may be used prior to an RFP if needed. Or may be included as a 2-step process with RFP.
- Formal method of receiving detailed and comparable proposals from different suppliers for a defined product or service
- Typically for services (i.e. consulting) where service, experience & price is evaluated
- Comprehensive document that provides requirements and evaluation process to make an informed purchasing decision.
- Vendors notified of your intention to procure certain products or services
- Formal submission from the chosen suppliers to enable comparison of the proposals
- Formal and fair process and evaluation of vendors based defined criteria, without favoring a preferred supplier.

RFP Components

1. Table of contents
2. Confidentiality or non-disclosure agreement
3. Basic information about the client and the process
4. Extent and scope of the project
5. Proposed time frame
6. Role of client or owner.
7. Detailed design information and requirements
8. Budget
9. Evaluation and award criteria
10. Submission instructions.

Request for Quotation/Tender (RFQ/RFT) – Recommended for General Contractor

- Competitive tender
- Bid document requesting formal bids from contractors or vendors
- Based on defined technical specification and clear description of products or projects or produced in repetitive qualities
- Award can be based on price.

REQUEST FOR QUOTATION (RFQ)	REQUEST FOR TENDER (RFT)
Purchaser has clearly defined criteria and/or specification	Purchaser has clearly defined criteria and/or specification
Purchaser is committed to buying	Purchaser is committed to buying
Judged primarily or solely on price	Judged both on price AND qualitative factors

CONTRACT TYPES

Used for services, construction and purchases

- Fixed price (lump sum)
- Cost reimbursable (cost plus)
- Unit Price.

Fixed Price Contracts – Recommended

- Legal agreement between owner and vendor to provide goods and services based on an agreed price
- The responsibility for managing the work to meet the needs of the project is focused on the contractor
- *Risks are primarily transferred to contractor.*
- Based on:
 - Defined quality and specifications of goods and services
 - Timing
 - Price.

Cost Reimbursable Contracts

- Owner agrees to pay the contractor for the cost of *performing the service or providing the goods*
- Used when scope or cost know well known
- Fee plus allowances (cost plus)
- The project uses a cost-reimbursable contract to pay the contractor for allowable expenses related to performing the work.
- **With fixed fee**
 - Provides the contractor with a fee, or profit amount that is determined at the beginning of the contract and does not change.
- **With percentage fee**
 - Pays the contractor for costs plus a percentage of the costs, such as 5% of total allowable costs. The contractor is reimbursed for allowable costs and is paid a fee.
- **With an incentive fee**
 - Used to encourage performance in areas critical to the project.
 - Often the contract attempts to motivate contractors to save or reduce project costs.
 - The use of the cost reimbursable contract with an incentive fee is one way to motivate cost-reduction behaviors.
- **Summary**
 - Requires good control of documentation and costs to ensure the contractor gets paid for only work performed
 - More time and energy is spent by consultants and project team members
 - Better to do up-front planning and define your requirements.

Unit Price Contracts

- A construction contract in which payment is based on the work done and an agreed on unit price per work unit.
- Unit price includes contractor's profit and other expenses
- Example
 - \$100 per linear metre of 1.5 m wide sidewalk
 - \$300 per linear metre of 300mm water main.
- The unit price contract is usually used only where quantities can be accurately measured
- Well defined design unit or standard
 - i.e. civil engineer works – road work, pipe laying
- Contractor paid based on actual installation
- Requires accurate measuring and monitoring.

PROJECT CHARTER

A Project Charter Is a written statement of the mission, objectives, and participants in a project including what is excluded in the project. It provides delineation of roles and responsibilities, outlines the project objectives, identifies the main stakeholders, and defines the authority of the project manager, and serves as a reference of authority for the future of the project.

The Project Charter Contents

1. Project Team Members and Key Stakeholders
2. Project Description
3. Project Goals and Objectives
4. Project Scope
5. Financial Information
 - a. Capital Cost, financing, funding sources, operating impacts, Rate of Return (if applicable), replacement costs.
6. Schedule
7. Procurement Options and Delivery Methodology
8. Constraints and Risks
 - a. A constraint is anything that limits the range of solutions or approaches.
 - b. A risk is anything uncertain that may occur that will impact project success

A draft Project Charter (Appendix 'A') has been prepared for Council consideration and approval.

FINANCIAL CONSIDERATIONS:

See report ASR-016/2020, Central Fire Station Project Financial Overview.

OTHERS CONSULTED:

- 1) WFES Officers
- 2) Deputy Fire Chief
- 3) Strategic Leadership Team

ATTACHMENTS:

Appendix 'A' – Draft Joint Fire & Emergency Services Facility Project Charter

Appendix 'B' – Procurement Option Infographic

Respectfully submitted by,

Approved by,

Morgan Alcock
Fire Chief/CEMC

William Kolasa
Chief Administrative Officer

PROJECT CHARTER

Township of Wainfleet

"Central" Fire Station

Project Number FS-2020-001

Project Name: Township of Wainfleet – New "Central" Fire Station
Project Number FS-2020-001

Project Location: 42143 Highway 3, Wainfleet, ON

TEAM MEMBERS AND STAKEHOLDERS**A. Internal Project Team**

Function	Name	Role and Responsibility
CAO - Project Sponsor	William Kolasa	Liaison with Council and Project Team
Fire Chief	Morgan Alcock	Project Manager
Treasurer	Mallory Luey	Finance
Deputy Fire Chief	Shawn Schutten	Fire Services Liaison
Ops. Manager	Richard Nan	Facilities/Fleet/Roads Liaison

B. Stakeholders

Function	Name	Description of Interest & Potential Impact
Approval Authority	Township Council	Project Funding Approval & Support
Allied Agency	Niagara EMS	Shared Facility & Tenant
Firefighters	Leanne Johnson	WVFF Association President
Agricultural Ratepayers	Various Agri-operators	Benefactor
Commercial Ratepayers	Ben Berg, etc.	Shared Studies and Benefactor
Residential Ratepayers	Citizens	Benefactor

C. Agencies and Authorities Having Jurisdiction

Function	Name	Description of Interest & Potential Impact
TW - Planner	Sarah Ivins	Zoning & OPA
TW - CBO	Dave Methot	Building Permit
TW – Drainage Super.	Mark Jemison	Munic. Drain impact
Niagara Region - Planner	Aaron Buttler	Planner
Niagara Region - Design	TBD	Concept Site Plans
NPCA	TBD	None at this time
MTO	TBD	Traffic Impact

PROJECT DESCRIPTION

For reasons including aging infrastructure (Buildings), larger fire apparatus, workplace health & safety concerns and changing growth patterns within the community, a new station will be required for the Fire Service to continue to provide fire protection services in an efficient and effective manner as approved by Council. The new central station will address many of the needs and concerns of the Fire Service personnel and the wider community, as well as creating a healthy work environment for firefighters. The projected timeline for this project is 18 months.

PROJECT GOALS AND OBJECTIVES

- **Why is the project being constructed?**
The new central station is the result of multiple studies, aging buildings, and Health & Safety concerns.
- **What are 5 key objectives and outcomes of the project**
 1. Much needed new station
 2. Room for long term growth including the potential addition of apparatus to meet long term needs of the community.
 3. Health & Safety of firefighters, by complying with Ministry of Labour orders c.2015
 4. Expanding service to customers
 5. Maintain labour peace with WVFF Association, by complying with Ministry of Labour Section 21 guidelines and industry best practices
- Rank the following (Scope, Time, Costs, Quality) in order of priority. (1 being highest priority, 4 being lowest) based the understanding of the project and explain rationale.
 1. **Quality:** Reduce long term operating and maintenance costs while keeping personnel safe and healthy with quality workmanship.
 2. **Cost:** Staying within budget reinforces the accuracy of the project plan as well as the fiscal integrity of the Project Team as it relates to the long term financial sustainability of the Township.
 3. **Time:** Staying on time will show the firefighters and the community the Township is committed to the project and care about their welfare and safety.
 4. **Scope:** Staying within the scope with one consistent message to both staff, stakeholders and the public will reduce the risk of project expansion or contraction which could result in cost overruns and unmet expectations.

Rationale:

Do to the aging existing building(s) in Winger and Marshville, with known health & safety issues, and existing Ministry of Labour Orders. New safe, clean, male and female facilities, basic quarters with kitchen and association space will provide meet requirements of Association and address Health & Safety issues. The new station will provide the space required for long term use, while providing the level of service set out in the Establishing & Regulating By-law while meeting the needs and expectations of the community.

PROJECT SCOPE**List what is in the project scope (Project Requirements)**

- 6 bay central fire station with onsite training room (to also act as Township's primary Emergency Operations Centre)
- Safe, clean, basic needs, male and female facilities, basic kitchen
- Needs to be constructed quickly within 18-24 months
- Renovation of existing barn to accommodate new Station on site

List what is not in scope

- Apparatus Needs
- Training Grounds

PROJECT CHARTER

Township of Wainfleet

"Central" Fire Station

Project Number FS-2020-001

List any operating or project constraints

- 18-24 month timeline
- Weather
- Budget
- Provincial, Municipal Emergencies
- Material Shortages
- Shortage of Skilled Labour/Labour Disputes

BUDGET

1. The major expenditure component categories of the budget (Table below)
2. The major revenues (To be developed by Finance Dept.)

Phase	Expenditure Category + Description	Estimated Expenditures	Status
PHASE 1 2019 Budget	Purchase Property	\$ 450,000.00	Complete
	Topographical & Survey	\$ 4,500.00	Complete
	Geotechnical Survey	\$ 10,000.00	Complete
	Traffic Impact Study	\$ 10,000.00	Complete
	Hydrological Study	\$ 20,000.00	To Be Completed
	Storm Water Management Plan	\$ 20,000.00	To Be Completed
	Drainage Engineering	\$ 10,000.00	In Progress
	Tree Removal	\$ 3,000.00	In Progress
	Fire Pond	\$ 7,000.00	To Be Completed
	Barn Renovation	\$ 30,000.00	To Be Completed
	Demolition of House	\$ 10,000.00	In Progress
	Temporary Electrical Work	\$ 3,000.00	To Be Completed
	Signage	\$ 2,000.00	To Be Completed
	Design Architect & Engineer	\$ 270,500.00	In Progress
	Phase 1 Sub-total	\$ 850,000.00	In Progress
PHASE 2 2020 Budget	Building Construction	\$ 3,750,000.00	To Be Completed
	Landscaping & Site Finishing	\$ 350,000.00	To Be Completed
	Fixtures, Furniture & Equipment	\$ 200,000.00	To Be Completed
	Contingency	\$ 200,000.00	N/A
	Phase 2 Sub-total	\$ 4,500,000.00	To Be Completed
ESTIMATED TOTAL PROJECT COSTS		\$ 5,350,000.00	

PROJECT CHARTER
 "Central" Fire Station
SCHEDULE

Key Objectives & Tasks	Month																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
	Jun. 2020	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan. 2021	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov. 2021		
Planning & Design	Planning & Design																			
Architectural Design & Engineering	█																			
Contractor Pre-Qualification		█																		
Plans Review & Approval			█																	
Tender for Construction Contractor				█																
Construction					Construction															
Site Prep. & Excavation					█															
Foundation						█														
Structure							█													
Finishes																				
Landscaping																				
Completion																		Completion		
Pre Delivery Inspection & Deficiency Review																			█	
Systems Training																			█	
Hand off & Celebration/ Grand Opening																			█	
Post Project Review & Analysis																			█	

CONSTRUCTION PROCUREMENT

Recommended Construction delivery method and Rationale.

Design/Bid/Build.

- Design-** Submit Request for Proposal (RFP) to work with an Architect/Engineer to complete one full set of building specifications.
- Pre-Qual.** Conduct contractor pre-qualification to "shortlist" potential bidders.
- Bid-** Submit Request for Tender (RFT) to all pre-qualified contractors will be invited to bid on the same style of construction and building specifications as per Architect/Engineer's design.
- Build-** Successful Contractor to construct completed building as per contracted timeline and price.

1. Procurement method and rationale

RFP for Architect & Engineering Firm-

Provides the Township with the ability to compare firms on previous projects, design styles and abilities, and set specifications for building's design and construction.

Contractor Pre-Qualification-

Provides the Township with the ability to ensure quality contractors based on previous project experience and references.

Tender-

All pre-qualified contractors invited to bid on project based on set specifications (Compare Apples to Apples). Lowest bidder is typically awarded the contract, which ensures competitive pricing for purchaser.

2. Contract type and rationale

Fixed Price Contract-

Given that the project should be well designed, and in an attempt to control the budget, a fixed price contract transfers a large portion of the risk to the contractor. The terms of the contract with a fixed price provides clear expectations of final budget costs, less any change orders from the purchaser. Having a well-planned project should reduce the number of change orders.

RISK MANAGEMENT

Identify 3 potential risks to the project and what potential mitigation measure for each risk

No	Risk Description	Impact	Mitigation Measures
1	Material & Labour Shortages	Construction Delays	Pre-approved list of alternative materials and sub-contractors. Possibly utilize a bonus/penalty program for performance.
2	Change Orders & Cost Overruns	Increased project costs and possibly running over budget	Proper and complete pre-planning and contingency fund. Fixed Price Contract.
3	Sociopolitical	Change in scope, budget impacts, impediments & delay.	Clearly defined roles & responsibilities. Project sponsor to liaise and mediate

<h2 style="text-align: center;">RFI</h2> <p style="text-align: center;">Request For Information</p>	<h2 style="text-align: center;">EOI / ROI</h2> <p style="text-align: center;">Request For Information or Registration Of Interest</p>	<h2 style="text-align: center;">RFP / RFO</h2> <p style="text-align: center;">Request For Proposal or Request For Offer</p>	<h2 style="text-align: center;">RFT</h2> <p style="text-align: center;">Request For Tender</p>	<h2 style="text-align: center;">RFQ</h2> <p style="text-align: center;">Request For Quotation</p>
<ul style="list-style-type: none"> • Purchaser does not have sufficient information to write a detailed request • Purchaser is not necessarily committed to buying • Likely to involve a further request before a final decision. 	<ul style="list-style-type: none"> • Similar to an RFI • Often used as a screening or shortlisting tool • Purchaser is not necessarily committed to buying • Likely to involve a further request before a final decision. 	<ul style="list-style-type: none"> • Purchaser seeks solutions-based submissions to meet their needs • Possibly no clear specification • Greater flexibility than an RFT • Suited to professional services. 	<ul style="list-style-type: none"> • Purchaser has clearly defined criteria or specification • Judged on both price and qualitative factors • Purchaser is committed to buying. 	<ul style="list-style-type: none"> • Purchaser has clearly defined criteria or specification • Judged primarily or solely on price • Purchaser is committed to buying. <p style="text-align: right; font-size: small;">Image created by www.writehouse.com.au</p>