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**OFNTSC** CRTP: Water



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**OFNTSC** Infrastructure



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**OFNTSC**CRTP: Fuel Systems Management



**OFNTSC** CRTP: Water



**OFNTSC** Emergency Planning



**OFNTSC** Housing





### First Nations Housing Conference 2018

# Housing Contract Administration

Valhalla Inn & Conference Centre Thunder Bay, Ontario February 6, 7, 8, 2018





# Housing Project Administration





#### **FNHC 2018**

# Housing Project Management





# **Topics**

- Define the Need
- The Plan
- Pre-Construction
- Construction
- Post-Construction





# Define the Need - The "Why"?

- What do we need and why?
- Community planning Comprehensive Community Plan, Capital Planning Study, general meetings, etc.
- Strategic Planning





- What?
- When?
- Who?
- Where?







# **Community Planning**

- Housing
- Economic Dev.
- Infrastructure

# Funding Opportunity

- INAC
- CMHC
- Own Source, other





- "If you fail to plan... you plan to \_\_\_\_\_."
- Plan Plan the 7P's
- The plan is to build # homes in # weeks/
  months and we have prepared by
  completing lot servicing, obtaining detailed &
  complete drawing sets, employing
  community members, and purchasing a
  material package with x supply company.





#### The Plan – be SMART

- Specific
- Measureable
- Attainable
- Relevant
- Time-bound





#### The Plan – the "How"

# What project approach fits for us?

- First Nation management
- General Contractor
- Design Build





- Scope
- Time / Schedule
- Cost
- Risk Management
- Human Resources
- Quality
- Policy
- Communication







# Scope

- What are we doing and not doing?
- How are we going to deliver the project?
- What are the major steps involved?
- How will we monitor progress?
- How will we work with changes along the way?



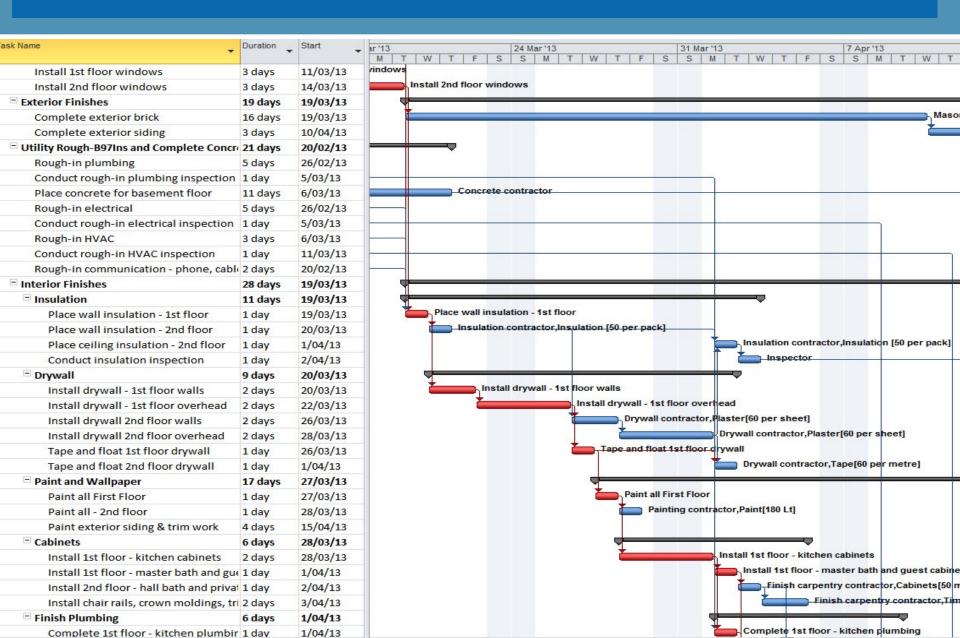


#### Time / Schedule

- How will we manage time frames?
- Master schedule
- Who updates and when?
- Understand your Critical path vs non
- Get schedules from all team members/contractors.
- Approve changes to the schedule with respect to why the change is needed.



# Master/ Construction Schedule







#### Cost

- Are we following a budget?
- What are my processes?



 Approve changes to the budget with respect to why the change is needed.







# **Risk Management**

DENTIFY
S
K

"Chance favours the prepared"

- Labour Force availability
- Suppliers
- Community issues election, disasters, interruptions, etc.





# Human ResourcesRoles and Responsibilities

- Chief and Council
- Housing Authority / Committee
- Community Members
- Contractors / Subcontractors
- Housing Manager / Project Manager
- Carpenters & workers
- Suppliers





"It's better to do the right thing with intention than to do the wrong thing quickly"

- Record Keeping
- Materials
- Workmanship (How well is it installed?)
- Best Practice
- Manufacturer Specifications





#### **Policy**

What policies do I have? What do I need? Whose policies? First Nation's or other?

- Housing Policy
- Procurement FN / Funding agency
- Tendering
- Contractor / Vendor
- Seasonal Work/ Worker
- First Nation Employee policy





#### Communication

Chief and Council

Community Members, Workers

Project Team - PM, Housing Department,

General Contractor

Contractors and Subcontractors

Suppliers, Funding Agency (INAC, CMHC, Banks)





#### **Pre-Construction**

Type of Construction; conventional wood frame; manufactured homes; innovative construction types (SIPs, ICF, Log built)

Plans / Drawings - complete set





#### **Pre-Construction**

Building Codes & Standards; OBC/ NBC CSA, ESA, WETT, HRAI, HVi

Materials – Specifications (acceptable for use in Ontario/ Canada)



security



#### **Pre-Construction**

Agreements

Contracts – RFP/ Tender; Lump Sum; Cost Plus, PM, Supervisor, Lead Carpenters, etc.

Legal reviews – agreements & policies

Insurance – for contractors & subs, for FN

Security – general contractors, subs, site

#### Documents - CCMC



CONSTRUCTION

Evaluation Report CCMC 14073-R CUFCA Radon Mitigation System (RMS<sup>™</sup>)

> MasterFormat: 07 26 23.01 Evaluation issued: 2017-10-31 Re-evaluation due: 2020-10-31

#### 1. Opinion

It is the opinion of the Canadian Construction Materials Centre (CCMC) that "CUFCA Radon Mitigation System (RMS™)," when used as a soil gas (radon) barrier in accordance with the conditions and limitations stated in Section 3 of this Report, complies with the National Building Code (NBC) of Canada 2015:

- Clause 1.2.1.1.(1)(a) of Division A, as an acceptable solution from Division B:
  - Sentence 9.13.4.2.(1), Protection from Soil Gas Ingress (Air Barrier System for Floor Assemblies)
- Clause 1.2.1.1.(1)(b) of Division A, as an alternative solution that achieves at least the minimum level of performance required by Division B in the areas defined by the objectives and functional statements attributed to the following applicable acceptable solutions:
  - Sentence 9.25.3.6.(1). Air Barrier Systems in Floors-on-ground (6-mil polyethylene).

### Documents - BMEC

777 Bay Street, 16<sup>th</sup> Floor Toronto, Ontario, M5G 2E5 777, rue Bay, 16° etage Toronto, Ontario, M5G 2E5

T: 416 585 4234 F: 416 585 7455 T: 416 585 4234 TC: 416 585 7455

W: www.ontario.ca/buildingcode/

www.ontario.ca/buildingcode/



Building Materials Evaluation Commission

Commission d'évaluation des matériaux de construction

# BMEC AUTHORIZATION: 16-03-379 SureSeal® Floor Drain Traps Seals

Date of Authorization: October 28, 2016
Date of Expiry<sup>1</sup>: October 28, 2021

#### 1. Applicant

RectorSeal 2601 Spenwick Drive Houston, Texas USA 77055

Tel: 713 263-8001

#### 2. Manufacturing Facility

RectorSeal 2601 Spenwick Drive Houston, Texas USA 77055





# Plans / Drawings

- Site Plan
- Floor Plans / Layouts
- Sections / Details walls, floors, roof
- Window & Door schedule
- Structural Details & Notes
- Specifications, general & specific





# Plans / Drawings cont'd

- Electrical layouts
- Plumbing sketch/ layout
- HVAC layout heating, HRV
- Other Manufacturer details trusses, floor joists, Attic Ventilation
- Innovative Construction specifications SIPs, ICF,





# Types of projects and agreements

- Tender / Request for Proposals Public or Invited
- Sole Source
- Cost Plus
- Design Build
- Standing Offer





#### What is a contract?

- A written agreement:
- An agreement (mutual understanding) between two of more parties
  - Voluntary
  - Deliberate
  - Competent
- Legal obligation
- Enforceable in court





# Construction - Carrying out the project

- Project meetings
- Subcontractors
- Schedule critical path, delays,
- Materials items with lead time (windows, doors, trusses, engineered structure, etc
- Plans / drawings changes / updates
- Inspections requesting, scheduling





# **Construction – Project Meetings**

Daily – carpenters, labourers, lead carpenters – safety & planning

Weekly – carpenters, contractors, PM / Housing Manager - planning

Monthly – PM, Chief and Council, Housing Committee members, General Contractor





# **Construction - Inspections**

- Plans evaluation
- Lot / site
- Foundation
- Framing
- Vapour Barrier / Insulation
- Final



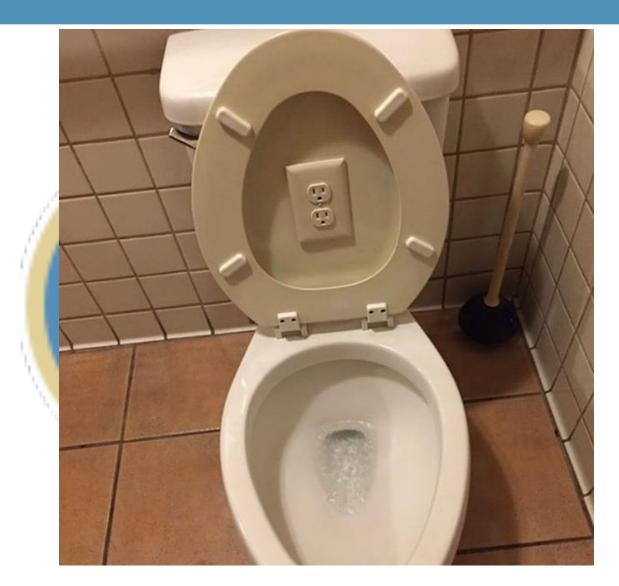






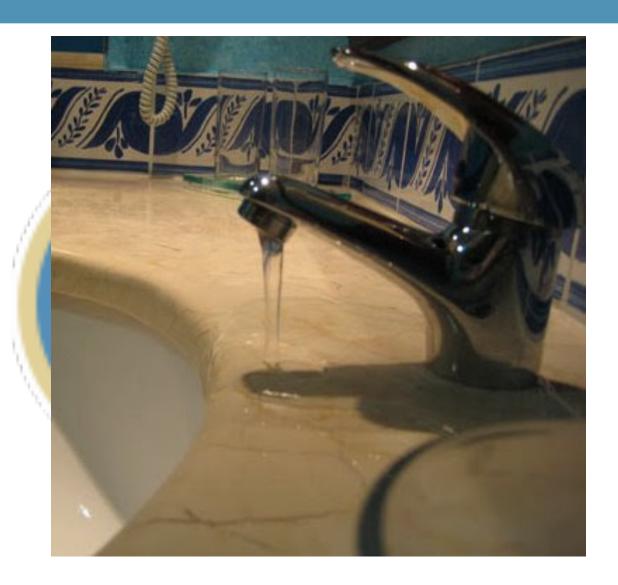
















# **Construction - Inspections**

- Scheduling
- Call backs
- Expectations







# **Health and Safety**

Who is responsible?

What about risk?

Supervisors – site meetings, health and safety reviews

Contractor – training meetings, training records,





# **Payment**

When? Bi-weekly/ monthly/ on progress
How Much? Fixed amounts / on progress
Security – bid bonds, contract security
Holdbacks
Budgeting – Who is responsible? Update the budget, inform leadership





#### **Post - Construction**

- Completion
- Final Payments (release holdback, etc.)
- Warranties & Details (who and time period)
- Equipment Manuals
- Tenant Selection
- Tenant Training
- Who is responsible for what?





#### **Contractors / Subtrades**

- Plumbing, Electrical, Heating/ Ventilation
- Who is responsible?
   FN or GC
- Expectations: certified, apprenticeship opportunities, materials, quality of work, scheduling







# **Project Completed**

- Debrief / Review
- How did we do?
- What can we do better or differently next time?
- Record Keeping











# Thank you

Ontario First Nation Technical Services Corporation

Website: www.ofntsc.org