

**MINUTES OF SPECIAL COMMITTEE OF WHOLE MEETING CW21-03** of the Council of the City of Dawson called for 5:30 PM on Thursday, February 4, 2021, City of Dawson Council Chambers

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**PRESENT:** Mayor Wayne Potoroka  
Councillor Stephen Johnson  
Councillor Bill Kendrick  
Councillor Natasha Ayoub  
Councillor Molly Shore

**REGRETS:**

**ALSO PRESENT:** CAO Cory Bellmore  
EA Elizabeth Grenon  
CDO Stephanie Pawluk  
Rec Manager Paul Robitaille  
Project & Asset Manager Brodie Klemm

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**Agenda Item:** Call to Order

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The Chair, Wayne Potoroka called the meeting to order at 5:30 p.m.

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**Agenda Item:** Agenda

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**CW21-03-01** Moved by Councillor Johnson, seconded by Councillor Kendrick that Committee of the Whole accepts a land related In Camera matter as a time sensitive item pursuant to Section 7(1) of Bylaw #11-12, being the Council Proceedings Bylaw.  
Carried 5-0

**CW21-03-02** Moved by Mayor Potoroka, seconded by Councillor Johnson that the agenda for Committee of the Whole meeting #CW21-03 be accepted as amended.  
Carried 5-0

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**Agenda Item:** Special Meeting, Committee and Departmental Reports

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a) Request for Decision RE: Rec Centre Location Geotechnical & Environmental Reports

**CW21-03-03** Moved by Councillor Kendrick, seconded by Mayor Potoroka that Committee of the Whole receive the Rec Centre Location Geotechnical and Environmental Draft Reports.  
Carried 5-0

Richard Trimble from Tetra Tech gave an overview of the two geotechnical reports:

In March of 2020 they submitted a desktop report to the Yukon Government which is basically an analysis of the two sites using existing information. They required more detailed information, so 3 holes were drilled at the campground site and 4 holes at the Dome Road site. The purpose of drilling at the campground site was to measure the thickness of the permafrost, organic silty sand over the gravel and secondly to measure the depth to bedrock. The purpose of the Dome Road site drilling was to measure the thickness of the tailings, if there were any soft areas and to measure the depth to bedrock.

There are two types of foundations, shallow and deep. Shallow foundations are basically concrete footings at or near the surface. Deep foundations are drilled or driven piles into bedrock. The first recommendation at the campground site was to excavate all permafrost out of the gravel and then backfill entire site with imported tailings. If all that work was done, then a building could be built on shallow concrete footings. A more extensive route would be to ignore the permafrost and drill right through it and anchor piles into the bedrock. There is lots of precedent for both types of foundations

throughout Dawson. At the campground site, you could build a rec centre on either shallow or deep foundations.

The Dome Road site is a bit easier to deal with as there is no permafrost anymore. To have a shallow foundation the tailing piles would have to be leveled out, the snow clearing debris would have to be removed and then raise the elevation by inputting gravel (packing). If a deep foundation was chosen, then it would require the site to be leveled, the addition of fill material, and then drilling through it and anchoring piles into bedrock. The consultant's opinion was that a deep foundation on the Dome Road site would be overkill. At the Dome Road site, you could build a rec centre on either shallow or deep foundations.

Committee held discussion regarding the Tetra Tech geotechnical reports.

- Question: Was EBA the company that drilled the holes for the current Rec Centre and if yes, were the site conditions similar to what was found at the Campground 20 years ago? From your years of knowledge and experience of drilling holes in Dawson, did you see degradation or melting of permafrost, in the new drills holes, compared to what was found in the past?
- Answer: They did not do the foundation design for the existing rec centre; it was their competition. Conditions north of Church Street are all the same, there is ice rich permafrost over the gravel that ranges in thickness from 3-6.5 meters. They haven't seen, over the decades of drilling, any climate related permafrost thaw issues.
  
- Question: At either site, will there be a need to excavate down to bedrock?
- Answer: Below the organic silty sand there is a layer of gravel which directly overlies bedrock. The gravel has permafrost but is considered thaw stable which means that if or when it thaws there is not enough ice in it to create any thaw issues with settlement. It's important during excavation to continue into the gravel to get that ice out of the top of the gravel.
- Question: What would be the recommended excavation depth for each site?
- Answer: The campground site has permafrost so the recommended excavation depth would be 4.5-5 meters. At the Dome Road site there is no permafrost so the recommendation is to level the tailings piles as they are, recompact the surface and then bring in enough white channel gravel on top of that to build the grade up for the building.
- Question: Is there a difference in quality of the bedrock between the two sites?
- Answer: No, they are basically the same.
  
- Question: In terms of common sense only, which of the two sites would be better for the construction of the new rec center?
- Answer: From a technical perspective, the Dome Road site is a better site.
- Question: Shoring at the campground site, what would the cost be, approximately?
- Answer: It's not common to do shoring at excavation sites in Dawson.
- Question: How much water would you expect to get at the campground site?
- Answer: They don't usually have a lot of problems with ground water; however, the campground site will be quite large so there is an expectation for a lot of water seepage.
- Question: The report recommends excavating to the property boundary at the campground site but according to the Zoning Bylaw there has to be a setback of 10ft from the property line for building construction. In terms of geotechnical considerations, will the building require a greater setback from the fill excavation total?
- Answer: No. The reason for the recommendation to excavate to the property line is because there is always stuff around the building, i.e., parking areas, ancillary buildings. If you don't excavate it out far enough then all the permafrost will melt and settle and you will end up with a trench around the building after a year or two. The other consideration is that they like to see a 1:1 slope out from the exterior edge of a loaded footing so that the soil will generate the required bearing resistance. If you go down 4 meters you should ideally go 4 meters out to maintain that 1:1 slope.

- Question: What was the rationale for recommending the Dome Road site as the better site to build the rec center?
- Answer: There is no permafrost and there is no big excavation required.
  
- Question: The preliminary report that was issued didn't say that rock socketed piles were a possible option at the Dome Road site. The most recent report says that it is an option. Why would it be an option in the first report but not the second?
- Answer: Not sure why. Will look into it and find out.
- Question: You talk about the bedrock being similar at both sites, but the earlier memo characterized the Dome Road site as highly weathered poor quality shist. Would you say that that is not something that you want to put a rock socketed pile into?
- Answer: Will look into it; however, there is usually always a layer of weathered rock.
- Question: How would having so much water flowing underneath the Dome Road site affect the construction? What would we have to do to deal with that? Is there anything about the variability of the level of water that we should be aware of in relation to construction at the site?
- Answer: Permafrost is so warm in Dawson that there is intermittent thawed zones everywhere and those are the conduits through which groundwater from further up the Dome comes down the hill and exits through these thawed zones. Ground water always finds it ways to an excavation. The only way to deal with it is to excavate and pump or only excavate in small sections and backfill right away.
- Question: If we are worried about water penetration in town what are the concerns with building on top of basically a river?
- Answer: The water under the Dome Road site is basically the water elevations of the Klondike River. It's important to site the building and do a hydro technical flood study to determine what the elevation of the Klondike River could be and make sure you build above that.
- Question: In the recent field report you noted that you didn't encounter permafrost at the Dome Road site but last March you did. So, is there permafrost in the unmined areas?
- Answer: Sometimes seasonal frost gets confused with permafrost but yes there is probably permafrost in the unmined areas. Those areas should be avoided for foundation/construction purposes.
- Question: In orders of magnitude what make something significant as opposed to not?
- Answer: Basically, at the Dome Road site, there is no excavation you just have to level the tailings piles. At the campground site, there is a lot of excavation and a 15ft cut over the entire block or at least under a large building. Just trying to emphasize that there is more work at the campground site than the Dome Road site.
- Question: Thinking about the type of flooring for the new rec centre. As an example, if we wanted the ice rink facility to be concrete, how would that actually happen on the tailing piles?
- Answer: When you prepare the site for the building foundation you're not only preparing the footings to support the load of the building but you also prepare for the interior slabs. If you chose the Dome Road site you could level it out, pack it and add a cushion of white channel on top. It's basically a non permafrost site with a compacted granular foundation and you could cast your concrete slabs right on the white channel.
- Question: You did some work on the Dome Road site previously, probably because it was being considered as a location for the lagoon. At that time you said that shallow ground water and perch ponds located between the tailing piles are consistent throughout and will be a development issue? Is that still a relevant take on that site about some of the challenges associated with building there?
- Answer: Perched ponds is actually the Klondike River, and in that context, the term perched water is incorrect for the description of the Dome Road site. It wouldn't be a problem anyways as the Klondike River is well below the elevation of the Klondike Highway and Dome Road.
- Question: When you were drilling this last time, you didn't see permafrost or were you not looking for it?

- Answer: The drill we planned to use for both these programs is called a sonic drill and it takes core samples, but it wasn't available. Instead, an air rotary drill was used which drills down and chews everything up and spits it back out. The only samples that you get are rock chips and soil clumps, so it's not really a good drill for core and permafrost logging. We know there is permafrost at the campground site because anything north of Church Street that has been excavated contains permafrost.
- Question: What would the difference be between digging out everything and putting it back in and sinking rock socketed piles?
- Answer: We called different contractors in Dawson and got an estimated price of \$22 per cubic meter for excavation and \$22 per cubic meter for backfill, so basically \$44 per cubic meter. Then add in others costs that you may need i.e., water treatment, shoring etc. Rock socketed piles generally use 10ft spacing so you'd have to determine how under your building you would need. The most recent experience, Ruby's Place, cost \$20,000 per installed pile.
- Question: In the soil analysis, it identifies certain metals that exceed the standards that are set by higher levels of government. Do you know anything about the mineral profile of Dawson, has it come up in other programs?
- Answer: No, the only thing that we've seen in Dawson is lots of serpentines which is related to asbestos.
  
- Question: To summarize, are you saying that as you go north from Church Street you've got more requirements and additional costs?
- Answer: Yes, that's a pretty good summary.
  
- Question: If we build at the Dome Road site it sounds like the Klondike River is a concern and we would have to investigate flood levels. What is the industry standard? Is it 100-year flood levels or 500-year flood levels?
- Answer: I'm not a hydro technical person but my understanding is that every building has a life to it and it's engineered as such. If you were anticipating that the rec center was going to last for 100 years, then at a minimum you would want to have a 100-year flood level and probably something greater. It depends on how much risk you want to assume for the building.
- Question: Do you think that conducting a drill core analyses for both these sites would give you any more insight or other critical information? Is there any value in expanding the research on the sties with the drill cores?
- Answer: If we were going to use the permafrost as a foundation and bearing layer, we would definitely not have taken that drill and we definitely would have gone with the coring program. We went into these investigations knowing that you don't just build otop of permafrost in Dawson.

Committee requested to have a meeting with Golder to review the Environmental Site Assessment reports.

b) Request for Decision- CBC Building Update

**CW21-03-04** Moved by Mayor Potoroka, seconded by Councillor Kendrick that Committee of the Whole review and provide comments on the Draft Project Plan for the CBC building.  
Carried 5-0

Brodie Klemm gave an overview of the Draft Project Plan for the CBC Building.

- Navigating Covid
- Bankruptcy of company hired to do the wall cladding and roof repair
- Looking for direction on end use of the building
  - o Seasonal vs year round
  - o Ground floor only vs ground floor and second floor

- Last year, when talking about wall cladding, roof repair and painting it led to conversations about windows, doors, insulation, etc.

Committee held discussion regarding the CBC building.

- Question: When are we expecting to have serious conversations regarding the end use of the building?
- Answer: We need to have them soon because we need that information when we talk about what to do with the building, i.e. is it seasonal or year-round, will there be public access just on the main floor or both floors. These decisions will make a big difference in how the building is designed and how it's accessed.
- Question: What is the status of finding an anchor tenant? Or are we looking to do a City of Dawson project there ourselves? What about YG?
- Question: What happened to the windows Jim Williams made?
- Answer: They are the storm windows currently in the building.
- There were suggestions of making the building a recreational and cultural space, a library/coffee shop, apartments, office spaces, meeting rooms, art gallery, indoor playground, dance/yoga/martial arts studio, World Heritage office space.
- Question: What is the square footage of the building?
- Answer: Will follow up and get that info.
- Question: So, is the idea not to use the second floor?
- Answer: That is an option. If it's a public access place then it needs to be accessible by everyone, which means an elevator.
- Year round and use of both floors would be preferred.

**CW21-03-05** Moved by Councillor Kendrick, seconded by Mayor Potoroka that Committee of the Whole forward to Council to direct administration to prepare an RFP for foundation drainage and insulation of the CBC building.  
Carried 5-0

**CW21-03-06** Moved by Councillor Johnson, seconded by Councillor Kendrick that Committee of the Whole forward to Council to direct administration to update the scope and prepare a new RFP for the Wall cladding and roof repair of the CBC building.  
Carried 5-0

**CW21-03-07** Moved by Councillor Ayoub, seconded by Councillor Kendrick that Committee of the Whole forward to Council to direct administration to prepare an RFP for design, build and installation of windows and doors of the CBC building.  
Carried 5-0

**CW21-03-08** Moved by Councillor Kendrick, seconded by Councillor Ayoub that Committee of the Whole forward to Council to approve administration to enter into a contract with Imperial Production for the restoration/replacement of 21 corbels and 8 roof finials for \$36,000 plus GST and shipping.  
Carried 5-0

**CW21-03-09** Moved by Councillor Ayoub, seconded by Councillor Kendrick that Committee of the Whole provide direction to administration on what is required to determine end use of the CBC building.  
Carried 5-0

c) Request for Decision- Rec Master Plan

**CW21-03-10** Moved by Mayor Potoroka, seconded by Councillor Kendrick that Committee of the Whole forward to Council for final approval of the Parks and Recreation Master Plan.  
Carried 5-0

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**Agenda Item:** In Camera

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**CW21-03-11** Moved by Mayor Potoroka, seconded by Councillor Kendrick that Committee of the Whole move into a closed session for the purposes of discussing a land related matter as authorized by section 213 (3) of the *Municipal Act*.  
Carried 5-0

**CW21-03-12** Moved by Mayor Potoroka, seconded by Councillor Johnson that Committee of the Whole reverts to an open session of Committee of the Whole and proceeds with the agenda.  
Carried 5-0

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**Agenda Item:** Adjournment

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**CW21-03-13** Moved by Mayor Potoroka, seconded by Councillor Johnson that Committee of the Whole meeting CW21-03 be adjourned at 10:57 p.m. with the next regular meeting of Committee of the Whole being March 3, 2021.  
Carried 5-0

**THE MINUTES OF COMMITTEE OF WHOLE MEETING CW21-03 WERE APPROVED BY COMMITTEE OF WHOLE RESOLUTION #CW21-06-04 AT COMMITTEE OF WHOLE MEETING CW21-06 OF MARCH 3, 2021.**

Original signed by:  
Wayne Potoroka, Chair

Cory Bellmore, CAO