CITY OF NORTH POLE
Regular Meeting
February 22, 2022
North Pole Council Chambers
125 Snowman Lane, North Pole, Alaska
www.northpolealaska.com

Tuesday, February 22, 2022
Cyber Security Workshop: 5:30-6:20 (not available to the public)
Committee of the Whole: 6:30 PM
Regular City Council Meeting: 7:00 PM

MAYOR	CITY CLERK
Michael Welch	Melissa Dionne
907-488-8584	907-488-8583

COUNCIL MEMBERS

Santa Claus – Mayor Pro Tem	907-388-3836
DeJohn Cromer – Deputy Mayor Pro Tem	907-347-2808
Aino Welch – Alt. Deputy Mayor Pro Tem	907-488-5834
David Skipps	907-750-5106
Anton Keller	907-987-2548

1. Call to Order/Roll Call
2. Pledge of Allegiance
3. Invocation
4. Approval of Agenda
5. Approval of the Minutes from 02/07/2022 (Pgs. 3-10)
6. Communications from the Mayor
    a. Student of the Month – Vincent Hooper (Pg. 11)
7. Council Members Questions of the Mayor
8. Communications from Department Heads, Borough Representative, and the City Clerk
9. Ongoing Projects Report
    a. Acceptance of Jeffrey James Jacobson to the City Council vacancy through October 17, 2022 (Pgs. 12-15)
10. Citizens Comments (Limited to five (5) minutes per Citizen)

11. **Old Business:**
    a. Ordinance 22-01, An Ordinance of the City of North Pole, Alaska, Amending the Travel Reimbursement and Per Diem for City Employees and Council (pgs. 16-18)
    b. Ordinance 22-02, An Ordinance of the City of North Pole, Alaska, to Amend Title 15, Building and Construction (Pgs. 19-121)
    c. Ordinance 22-03, An Ordinance of the City of North Pole, Alaska, to Purchase Loaders for the Utility and Public Works Dept. and a Skid Steer for the Public Works Dept. (Pgs. 122-128)

12. **New Business:**
    a. Ordinance 22-04, An Ordinance of the City of North Pole to Fund Preliminary Investigations and Design for the Replacement of Steel Water Mains (Pgs. 129-151)
    b. Ordinance 22-05, An Ordinance of the City of North Pole to Fund Updating the North Pole Utility Water and Sewer Standards of Construction (Pgs. 152-163)
    c. Ordinance 22-06, An Ordinance of the City of North Pole to Fund Preliminary Assessment and Design for the Remodel of the Old Water Treatment Plant as Office Space for the City Services Departments (Pgs. 164-213)
    d. NPFD Request to Purchase Radios (Pgs. 214-220)

13. **Council Comments**

14. **Adjournment**

How to Offer Public Testimony at Council Meetings

Written testimony is encouraged. You may submit your comments by calling the Clerk's Office at 907-488-8583 or by sending an email to MDionne@northpolealaska.org prior to 1:00 p.m. the day of the meeting. Please indicate which agenda item you are providing written testimony for. Examples: Ordinance or Resolution number, agenda item#, or description of subject.

To sign-up for **telephonic testimony** call the Clerk's Office at 488-8583 or email MDionne@northpolealaska.org prior to 1:00 p.m. the day of the meeting. Please indicate that you wished to be called, for what item you will provide testimony on, and what number you can be reached at.

All NPCC meetings are held virtually. If you would like to attend the meeting, please contact the Clerk's Office at 488-8583 or email at MDionne@northpolealaska.org for the link.

Inquiries concerning ADA compliance or accommodations should be directed to the City Clerk.

Committee of the Whole – 6:30 P.M.
Regular City Council Meeting – 7:00 P.M.

A regular meeting of the North Pole City Council was held on Monday, February 7, 2022, via Zoom.

CALL TO ORDER/ROLL CALL

Mayor Welch called the regular City Council meeting of Monday, February 7, 2022, to order at 7:00 p.m.

Present:

Michael Welch – Mayor
Santa Claus - Mayor Pro Tem
DeJohn Cromer - Deputy Mayor Pro Tem
Aino Welch – Alternate Deputy Mayor Pro Tem
Anton Keller
David Skipps

PLEDGE OF ALLEGIANCE TO THE U.S. FLAG

Led by Melissa Dionne

INVOCATION

Given by Ms. Welch

APPROVAL OF AGENDA

Mr. Claus *moved to* approve the agenda of February 7, 2022

Seconded *by* Ms. Welch

Mr. Claus *moved* to amend the agenda of February 7, 2022 to consent the following items:

Old Business:

a. Resolution 22-05 A Resolution Establishing the City of North Pole's Legislative Priorities for the 32nd Legislature 2022 Regular Session (Pgs. 13-18)
b. b. MOU - DOL and NPPD Regarding Exculpatory Information in Personnel Files (Pgs. 19-57)

New Business:

a. Ordinance 22-01, An Ordinance of the City of North Pole, Alaska, Amending the Travel Reimbursement and Per Diem for City Employees and Council (Pgs. 58-60)
b. Ordinance 22-02, An Ordinance of the City of North Pole, Alaska, to Amend Title 15, Building and Construction (Pgs. 61-163)
c. Ordinance 22-03, An Ordinance of the City of North Pole, Alaska, to Purchase Loaders for the

Utility and Public Works Dept. and a Skid Steer for the Public Works Dept. (Pgs. 164-172)

d. Resolution 22-07, A Resolution of the City of North Pole, Alaska, to Appoint Mary K. Hamby to the FNSB Historic Preservation Commission (Pgs.173-175)
e. Approval of the Professional Services Agreement with NTL Alaska (Pgs. 176-179)
f. Request to Purchase Fire Department Vehicle (Pgs. 180-182)

Seconded *by* Ms. Welch

On the amendments

DISCUSSION

None

PASSED

Yes: 7 – A. Welch, Claus, Keller, Cromer, Skipps, Welch
No: 0

On the agenda as amended

DISCUSSION

None

PASSED

Yes: 7 – A. Welch, Claus, Keller, Cromer, Skipps, Welch
No: 0

APPROVAL OF MINUTES

Mr. Claus *moved* to approve the minutes from the 1/18/22 meeting
Seconded *by* Ms. Welch

DISCUSSION

None

PASSED

Yes: 7 – A. Welch, Claus, Keller, Cromer, Skipps, Welch
No: 0

COMMUNICATIONS FROM THE MAYOR

- The Mayor shared that on 1/24 he tested positive for COVID. He has been symptom free for 4 days and that his last COVID test was negative, and he will be back in the office tomorrow, Tuesday, February 8th. The Mayor talked about the fact that the borough and state have some of the highest number of COVID cases in the nation. He also said that due to being sick he has had to postpone his surgery at that will now be in the beginning of May, instead of March like was planned. He said he thought this was a good thing because while he was sick he really didn't get a lot done and has a lot to catch up on.
- He talked a little about the positions that the city is hiring for and the urgency of finding someone for Mr. Butlers position before he leaves at the end of the month. He also mentioned that we changed the direction of that position, instead of splitting it up, it has been changed back to the Director position as it

is now. He is also working on an interview panel so that we can start the interviews as soon as possible.

- Mayor Welch talked about the F35's that are continuing to arrive at EAFB, the remaining 5 will be arriving in April.
- He has also been working with the command at Eielson AFB to put together a bus tour for the new families that will be arriving. Showing them the highlights of the city and just giving them more info about the area.
- Mayor Welch said that he will not be going to the Winter AML conference due to his health.

COUNCIL MEMBER QUESTIONS OF THE MAYOR

- Mr. Claus asked about where we stand with applicants to fill the vacant Council seat.

The Mayor said that we have 2 applicants and one of them is not qualified due to the fact that he has not been living in the city for the required length of time. We will be setting up an interview with the other via Zoom soon and that all of the Council members should expect to be a part of it.

- Mr. Keller asked about the follow up for the snow removal contract.

The Mayor said that he would let Mr. Butler answer that question a little later. He also said that he would follow up with Mr. Keller with some information regarding the electrical generators and central heat plant that he is trying to get going in the city.

COMMUNICATIONS FROM DEPARTMENT HEADS, BOROUGH REPRESENTATIVE AND THE CITY CLERK

Police Department, Chief Dutra

- Chief Dutra reported that they have been having sewer back ups the last few weeks in the new building and this morning there was no hot water in the building. He said that he has been keeping the Mayor updated, and working with Mr. Butler, Design Alaska and our lawyers on how to fix the problems. He said that it looks like the water is freezing in the pipe by the manhole in the sewer system, they are trying to figure out what they did wrong and how they are going to fix it. He said that he would keep the Councill posted.
- Chief Dutra gave an update for the new hire, and they are working on some lateral moves within the department.
- They are putting a lot of resources into resolving the Wendy's shooter case and hope that will be wrapping that up soon.

Mr. Claus asked the Chief if he knew of the citizen complaining about the hospital bed that had been dumped by the transfer site.

- Chief Dutra said that he was unaware of the situation and believes that it would fall to the borough, but without knowing the exact location couldn't answer that. Mr. Butler jumped in to say that one of the adult care facilities is doing a renovation and that the bed was taken to the transfer site at some point during this renovation, but then someone drug it back out. Mr. Keller said that it was at the intersection of the transfer site and the Richardson.

Fire Department, Chief Heineken

- Chief Heineken talked about the open fire fighter position and that they will be wrapping up interviews this week. They have 3 qualified candidates and hope to job offer before the first of next week.
- The are currently accepting application for the Operations Training position. They have it advertised as 'open until filled' but plan on looking at who they have tomorrow, they have received 3 applications and will move the qualified candidates forward in the process.
- Chief wanted everyone to be aware that COVID testing is still available at the Fire Station for city employees. If you aren't feeling good or have been in close proximity with a positive person, just give them a call and let them know and they will have it ready within 30 minutes (call dependent) when you get there, they will run out to your car to administer the test.
- The last thing to report is that the road conditions have been not great and that they have been hard on vehicles. They had an ambulance that broke a shock mount, and it was most assuredly due to the bad road conditions.

Ms. Welch asked the Chief about some fire activity a few days ago on the southbound side of the highway and asked if our fire department was a part of that.

- Chief Heineken responded that yes, it was one of the buildings at the Pearson auto shop that his crew did respond to as part of the mutual aid agreement. Our engine was the first on scene, the fire was quickly taken care of and there was minimal damage to the building.

Mayor Welch asked the Chief to share what info he could about the shooting at Wendy's.

- Chief Dutra shared that someone went through the drive thru at the NP Wendy's and was angry about the bacon. He discharged a weapon at the building, and it lodged into the ceiling. He said there has been a suspect identified.

Director of City Services, Bill Butler

- Mr. Butler apologized for not have something sent to the Councill ahead of time, he was hoping that things would slow down a little and they just have not.

Building Department

- There have been no new building permits issued. Which is not unusual for this time of year. There was a submission to do a renovation of one building.

Public Works

- Has just been trying to keep up with the snow removal around the city. It is an ongoing chore along with keeping equipment running.
- Mr. Butler talked about the initial outreach to Hubbard for the removal of snow from some of the neighborhoods around the city and the cost was astronomical. He did send of an invitation out to the public to bid the project last week. They prioritized the neighborhoods that needed the snow removal the most – Stillmeyer Estates, the center of town, and Highway Park, plus a few other roads around the city. He worked with the Utility Supervisor to estimate the number of cubic yards of snow at 105,000 and then asked for the bid to be an all-inclusive price for that estimated number. The bid should include the price to pick up the snow and haul it away, along with the cost of the dump site as the city does not have a place to put the snow. One of the advantages to Hubbard was that they have a site right in the city where

they can haul the snow to, keeping the transportation costs down. He shared that he has provided the bid packet to 5 businesses so far. His last day with the city is soon and he has the bid deadline set up so that one of the last things that he does will be to gather those bids and put together a recommendation to the Council. Mr. Butler said that he consulted with his staff on the requirements needed for the bid including a bond, they must meet our insurance requirements and provided basic guidelines including the time frame and the hours that the work can be done in so not to disturb residents.

Utility

- Not a lot of major things going on. They are tying up the loose ends on the Moose Creek expansion project. The final report still needs to be complete, but that cannot be done until everything is complete and there will still be some activity come springtime. There is still some road resurfacing that needs to occur and up to half a dozen new connections that will still need to be completed.

The Mayor asked Mr. Butler if he had heard anything back from the State regarding the information and $ totals that we provided that from our expenses during the 2021 end of the year snow storm.

- Mr. Butler said that he has not. Ms. Dionne said that she also has not heard anything back from the State.

Mr. Keller asked Mr. Butler if he thought that the city should not go with the initial bid on the snow removal work from Hubbard.

- Mr. Butler said no that that cost quoted was just astronomical and he cannot offer the support of it to the Council.

Mr. Cromer asked when Mr. Butler's last day with the city was.

- Mr. Butler let everyone know that it was February 25th and that his last meeting will be the 22nd.

Finance, Tricia Fogarty

- Ms. Fogarty said that there has been a lot of working going on with the conversion between Caselle and Tyler and that because they are essential working in 2 systems there is double the work happening. They are doing this to double check that the balances of the accounts are correct. She said they have gone down the wrong road a couple of times and now are correcting what was done wrong. She reminded everyone that it is a learning curve and that the work is extremely cumbersome. She gave a shout out to Michelle Peede for all the extra work that she has been doing.
- She said that the update for the sales tax for December and January have been done, the accruals for the end of the year have not been done yet, but we are extremely above what we budgeted for.
- The letters for the auditors are done and stamped, there is one that needs a signature from the mayor still.
- She thanked Mr. Claus for checking on the office and getting things signed and approved for us while the Mayor was out sick.

Mr. Claus thanked Ms. Fogarty and Ms. Peede for the training that they gave him on the new electronic signing system that is in place with Tyler now.

- Ms. Fogarty did talk to the City of Fairbanks asking for pointers with the new system (theirs is similar) and they offered some advice moving forward. Ms. Fogarty informed the Councill that they may get some

emails in the new few weeks regarding check runs, etc and let them know if they had questions about any of it that they should call her. She said it is still a work in progress and encourages everyone to give their feedback on the process and thanked everyone for their patience with the process.

Mayor Welch recognized all the work that Ms. Fogarty and her staff have been putting into Tyler each week. The Mayor asked about the deadline for the audit and asked if we needed to change the deadline for it because she was really busy.

- Ms. Fogarty responded that they have and that she is worried because our fiscal audit is going to happen soon. She said that she has talked to the auditors and agreed that April 1 was the deadline, she said she believes that we can get some of the stuff to them by this date, but she said she wasn't sure about getting them everything. She asked if she could have a discussion with the Mayor about the audit and a letter that the City received regarding the audit.

Mayor Welch also brought up the Forbes Laundry business and the troubles that the city has had with paying their sales taxes for the last few years. He said that the Otis family has bought the business back. They have been closed a bit for repairs and refurbishing. The previous owner is still responsible for at least half a year's sales taxes. The Mayor said that if this isn't taken care of that the City will have to get CSG involved. Mayor Welch also took a moment to thank Mr. Claus for stepping up while he was out sick.

Borough Representative

- Ms. Welch said that there has not been a borough meeting since this last time to Council met. The regular scheduled meeting will be this Thursday, February 10.

City Clerk's Office, Melissa Dionne

- Ms. Dionne thanked Mr. Claus for coming into the office this last week and to Ms. Fogarty and Ms. Peede for all their hard work.
- Ms. Dionne shared that she had completed a couple of trainings this last week.
- She gave an update on the Director and HR positions that the city is trying to fill. For Mr. Butlers' she has received about 15 applications, however of those only about 5 are qualified. She said that she has not gotten the city application or the writing sample for a few of them and touched base with them to get those. There are 4 people identified for the HR position and interviews will be scheduled soon.

ON GOING PROJECTS

- None

CITIZENS COMMENTS – (Limited to Five (5) minutes per Citizen)

- Tammie Wilson, as part of her role with the Borough Assembly (not as the Director of the Governor's Office) wanted to talk to the Council about Borough Ordinance 2022-11 that is coming before the assembly for the second reading this Thursday, February 10. She apologized that she did not realize that the City of North Pole automatically exempted a property from taxes if the borough did. The ordinance gives a tax break to builders who are building new housing developments in the area. Builders building

new units of 4 or fewer will receive a 2-year exemption once the foundation is in and that it is before December 31, 2023, the 2 years will be cut short if the units are sold. If there are more then 5 units there can be up to a 10-year exemption, that could be transferable if sold, this exemption doesn't begin until the units are completed. Builders need to complete an application for these exemptions, show a map and it needs to go to the assembly. The borough is trying to give incentives to get housing built for the new F-35's at EAFB. If the Air Force is not satisfied that the economy can support the military families, they could decide to not let them bring their families and no one wants that to happen. The ordinance falls on the cities of Fairbanks and North Pole, nowhere else. Ms. Wilson wanted everyone to know about the ordinance and to give them an opportunity to read it and react.

Mayor Welch asked how this ordinance conflicts/works with what the City of North Pole already has in place as a Military Facility Zone. He also asked if the exemptions would work for someone buying/building the property as a rental investment. The Mayor also brought up the idea that the city will be losing a lot of revenue if we didn't get the property taxes for these large developments and that he would not want to have to raise rates for others to make up for the loss of revenue.

- In order for the City of Fairbanks to be included in this ordinance the borough wrote it under the Economic Development statue instead of the Military Facility Zone statue. Ms. Wilson said that the city has the option of giving a larger tax break if we choose. The tax breaks work for rental properties as well, with the same rules applying. Ms. Wilson told the Mayor that the NPCC could think about writing a new ordinance that stated that the City of North Pole would not automatically go with the boroughs exemptions. As well, if the people were unhappy with this ordinance, it could be repealed by the voters.

Mr. Claus thanked Ms. Wilson for keeping the Council in the loop.

NEW BUSINESS

d. Resolution 22-07, A Resolution of the City of North Pole, Alaska, to Appoint Mary K. Hamby to the FNSB Historic Preservation Commission

This Resolution was consented at the Meeting of the Whole, but the Council wanted an opportunity to thank Ms. Hamby for volunteering for the commission. Ms. Hamby gave a little background on her experience as an anthropologist. The Councill asked Ms. Hamby to please check in with the Council on the projects the commissions are working on.

g. Request for Customer Emergency Payment Fund

Mr. Butler spoke about this water customer that had a water line break during the winter storms at the end of the year, the heat went out in the house, and they could not stay there, so the home owners were not aware that the water line had broken. City Hall was closed that week and the leak wasn't discovered until the Utility biller came back to the office, she immediately notified the homeowner. The homeowner was given the City codes and was told what she could do to try and get the Council's approval to use the Customer Emergency Payment Fund. Mr. Butler said that the homeowner did not properly submit the paperwork. The code asks for supporting documents supporting the financial need. The homeowner was asked to resubmit the paperwork and that she was welcome to reapply for the emergency fund.

COUNCIL COMMENTS

- Mr. Cromer told everyone to be safe out there.
- Ms. Welch shared that she listened in to the recent school board meeting where they talked about the school closures in the borough. She said she found it interesting that the CFO pointed out the money spent on school support staff and the suggestion that money could be saved with the reduction of that support staff. She just wanted everyone to think about what kind of education we are offering our children and how these closures are going to affect the families. The schools are all going to be affected with the closures of a few schools and the movement of the 6th graders into the middle schools.
- Mr. Claus told everyone to be safe as well.
- Mayor Welch wanted to take his hat off to the State of Alaska DOT and all the hard work they are putting into keeping the roads safe for everyone. He said that he knows the City of Fairbanks public works is working just as hard and having their own struggles with the increased snow fall this year.

Ms. Welch *moved* to adjourn
Seconded *by* Mr. Claus

The regular meeting of Monday, February 7, 2022 adjourned at 8:20 p.m.

These minutes passed and approved by a duly constituted quorum of the North Pole City Council on Monday, February 7, 2022.

ATTEST:

_____
Melissa Dionne, City Clerk

Office of the Mayor
City of North Pole

Proclamation

WHEREAS, *Vincent Hooper is a senior at North Pole High School and is the son of Adina Johnson and Charles Hooper.*

WHEREAS, *Vincent plays Boys Soccer, is on the Student Council and the Yearbook Staff.*

WHEREAS, *Vincent volunteers his time with the Ignition Program and gives 8th grade tours for incoming students at North Pole High School, as well as with the Senior Ball Committee.*

WHEREAS, *the City of North Pole desires to recognize the outstanding students in the community.*

NOW, THEREFORE, I, *Michael W. Welch, Mayor of the City of North Pole, do hereby proclaim Vincent Hooper the:*

North Pole City Council
High School Student of the Month
For February 2022.

Michael W. Welch
Mayor, City of North Pole, Alaska

ATTEST:

Melissa Dionne
Melissa Dionne
City Clerk

THE CITY OF NORTH POLE INCORPORATED ON JANUARY 16, 1953 SEAL ALASKA

Jeffrey James Jacobson
391 Finell Drive
North Pole, Alaska 99705
907-460-7733
jjacobson57@gmail.com

Mayor Welch
North Pole City Councilmembers
125 Snowman Lane
North Pole, Alaska 99705

Honorable Mayor and Councilmembers,

I am once again interested in serving my community and city by filling the vacant City Council seat that runs through October 2022. This year is a very exciting and critical year as the City grows to meet the housing and service needs of civilian and military families associated with the two squadrons of F-35's. I want to be a team member using my years of public service and professional experience to help the City in any way possible. In fact, I believe that I could be a real asset sharing insight and best practices between the two great cities in the Fairbanks North Star Borough.

Even though I have a busy work and service schedule, I will dedicate the time needed to fulfill the important responsibilities of a councilmember. At times my duties as the Fairbanks Public Works Director requires me to attend and participate in the Fairbanks City Council meetings. These meeting times the second and fourth Mondays of the month do not conflict with the meetings times of the North Pole City Council meetings the first and third Mondays of the month.

I would consider it a great honor to serve as a North Pole City Councilmember.

Thank you for your consideration.

Sincerely,

Jeff Jacobson

Jeffrey James Jacobson

391 Finnel Drive
North Pole, Alaska 99705
907-460-7733
jjacobson57@gmail.com

Qualifications

- Skilled time manager, highly organized, detail oriented and internally motivated
- Cultivates a spirit of teamwork and trust between all levels of the organization
- Skilled relationship builder with diverse internal and external partners
- Skilled Union Negotiator
- Accomplished public speaker, adept at presenting complex information to large groups
- Experienced in developing and overseeing multi-million-dollar budgets

Education

B.Ed in Elementary Ed
University of Alaska, 1983

M.Ed, Curriculum and Instructional Design
Brigham Young University, 1988

M.Ed. in Educational Leadership, University of Alaska, Anchorage, 2010

Professional Experience

Public Works Director, *City of Fairbanks*

- Responsible for all planning, directing, and managing of maintenance and repair of city streets, storm drain system, buildings and grounds, city fleet and heavy equipment, supply warehouse and collection of residential garbage.
- Investigate all complaints from businesses or residents regarding services provided by Public Works
- Issue city code violation notices regarding snow removal, garbage, accumulation of junk, illegal camping
- Institute employee safety programs and OSHA compliance

Chief of Staff, *City of Fairbanks, Fairbanks North Star Borough*

- Responsible for planning, directing, supervising and evaluating, both directly and through Department Directors, the day-to-day administrative operations and performance of all City/Borough personnel.
- Review and approve all matters requiring consideration and approval by the Borough Assembly and coordinate with the Borough Clerk to ensure all material and information is provided to Assembly members as required.
- Ensure all City/Borough government policies are implemented and continually evaluate the effectiveness of adopted policies, procedures and programs making adjustments as needed to enhance efficiency and cost effectiveness.
- Provide policy guidance, direction and evaluation of the performance of each City/Borough department as each relates to the development and implementation of annual City/Borough goals, objectives and budget.
- Responsible, either directly or through Department Directors, for hiring, promoting, disciplining, terminating and directing all City/Borough personnel performance activities and for maintaining an effective staff development program that builds and sustains a competent workforce.
- Develop and monitor achievement of City/Borough goals and objectives and ensure that all internal and external stakeholders are informed of progress.
- Lead the bid and organizing committee for Fairbanks to host the 2014 Arctic Winter Games. Elected President of the Fairbanks 2014 Arctic Winter Games
- Create and organize the 50th Anniversary Celebrations and events for the Fairbanks North Star Borough.
- Testify before legislature, give speeches on behalf of the Mayor and provide staff reports to the City Council/Borough Assembly.

Jeffrey James Jacobson

Additional Professional Experience

Employment

- Public Works Director City of Fairbanks November 2016- present
- Chief of Staff City of Fairbanks January –November 2016
- Chief of Staff Fairbanks North Star Borough 2010-2015
- North Pole City Mayor April 1999- October 2006
- Denali Science Camp Director 1996-2013
- North Pole Middle School 6th Grade Teacher 1984-2010
- USPS Letter Carrier and Mail Clerk 1976-77, 1979-1982 1983-1984

Awards

- Explore Fairbanks Aurora Award 2016
- North Pole Community Winter Festival King 2006
- U.S. Fish & Wildlife Conservation Award 2005 for Beaver Springs Nature Trail Development
- North Pole Community Chamber of Commerce Citizen of the Year 2003
- Alaska State Teacher of the Year Alternate 1997
- Fairbanks North Star Borough School District Teacher of the Year 1996

Public Service - Present

- North Pole Area Housing Association Board President
- Festival Fairbanks Board President
- Fairbanks Parking Authority Board President
- Executive Secretary for North Pole Ward Bishop

Public Service – Past

- Fairbanks North Star Borough Library Commission 2016-2021
- Arctic Winter Games International Committee Director 2014 - 2018
- Fairbanks 2014 Arctic Winter Games Host Society Board President 2010-2015
- North Pole Rotary
- North Pole Community Chamber of Commerce Board President
- North Pole City Council October 1993-1999, 2006-2010
- Boys and Girls Club Board
- Alaska International Senior Games Board President
- State of Alaska Homeland Security Task Force
- 2005 BRAC Task Force
- Fairbanks North Star Borough Railroad 2100 Task Force
- Fairbanks Education Association Building Representative
- North Pole Middle School PTSA President
- Fairbanks International Airport Community Council Member
- Boy Scouts of America Scoutmaster
- Missionary in Santiago Chile

Sponsored by: Mayor Welch
Introduced & Advanced: February 7, 2022
Possible Adoption: February 22, 2022

CITY OF NORTH POLE
ORDINANCE NO. 22-01

AN ORDINANCE OF THE CITY OF NORTH POLE AMENDING THE TRAVEL REIMBURSEMENT AND PER DIEM FOR EMPLOYEES AND CITY COUNCIL

WHEREAS, changes to the North Pole Municipal Code are a continually changing requirement; and

WHEREAS, the City of North Pole wishes to remain competitive with its compensation for it's employees; and

NOW, THEREFORE, BE IT ORDAINED by the Council of the City of North Pole:

Section 1. This ordinance is of a general and permanent nature and shall be codified.

Section 2. Title 2 Chapter 36 section 220 Travel and Host Reimbursement are hereby amended in the North Pole Code of Ordinances as follows: [new text in red, deleted text in ~~strikethrough red~~]

B. Travel Reimbursement and Per Diem.

1. When employees or members of the City Council are required to travel for the City on official business, reimbursement or advance payment shall be in accordance with the following guidelines:

2. Reimbursement or advance payment for expenditures on official trips shall be ~~$51 (fifty-one dollars)~~ $72 (seventy two dollars) per day. ~~Partial days shall be reimbursed based on the daily increments listed in this section.~~ The first and last day of travel shall be reimbursed at 75% of the $72 per day or $54 per day.

~~Per Diem for Partial Days~~	-	~~Rates~~
~~Midnight to 9:59 a.m.~~	~~Breakfast (20%)~~	~~$10.00~~
~~10:00 a.m. to 2:59 p.m.~~	~~Lunch (30%)~~	~~$15.00~~
~~3:00 p.m. to Midnight~~	~~Dinner (50%)~~	~~$26.00~~
-	~~Total Daily Amount~~	~~$51.00~~

~~Meals that are included in a conference, seminar or meeting are not eligible for per diem reimbursement.~~

3. Per diem is only issued for travel that takes an employee or Council member outside of the regional area, defined as the Fairbanks North Star Borough (FNSB).

4. Claims for reimbursable lodging expenses and destination ground transportation shall be supported by actual receipts. All reimbursement requests must be submitted on a travel expense claim form within thirty days of travel. If the travel expense claims form is not turned in within thirty days the City will not reimburse any expenses, no exceptions.

5. An employee or member of the City Council may request an advance payment equal to one hundred percent of anticipated expenses covered under this section with the following constraints:

a. A completed travel authorization form, with proper approval, is submitted to the Accounts Payable Clerk five business days prior to travel.

b. Travel and lodging allowances paid in advance must be substantiated by receipts, invoices, ticket stubs, etc., within thirty days of the employee's return date and a travel expense claim form. Overpayments shall be returned to the City. If an employee or member of the City Council fails to submit documentation of expenses within thirty days of completion of travel for which advance payment was

made, the Chief Executive shall deduct from the employee's/Council member's pay the amount of the advanced funds for which no receipts are made available. All funds so deducted shall be paid to the employee or member of the City Council upon submission of all required documentation.

Section 3. Effective Date. This ordinance shall become effective at signing.

ADOPTED THE _____ DAY OF February 2022.

_____
Mayor: Michael W. Welch

ATTEST:

_____
Melissa Dionne
City Clerk

PASSED
Yes:
No:
Absent:

Sponsored by: Mayor Michael Welch
Introduced February 7, 2022
Possible adoption February 22, 2022

CITY OF NORTH POLE
ORDIANANCE 22-02

AN ORDINANCE OF THE CITY OF NORTH POLE, ALASKA, TO AMEND TITLE 15, BUILDING AND CONSTRUCTION

WHEREAS, changes to the North Pole Municipal Code is a continually changing requirement; and

WHEREAS, the City of North Pole Municipal Code should be amended to conform to the requirements of the City.

NOW, THEREFORE, BE IT ORDAINED by the Council of the City of North Pole:

Section 1. This ordinance is of a general and permanent nature and shall be codified.

Section 2. Amend Title 15, Building and Construction by adopting by reference the following national building codes as follows and with the attached amendments;

Chapter 15.12: Building Code; International Building Code, 2018 edition
Chapter 15.16 Existing Building Code 2018 edition.
Chapter 15.20: Residential Code; International Residential Code, 2018 edition
Chapter 15.28: Mechanical Code; International Mechanical Code, 2018 edition
Chapter 15.36: Electrical Code; National Electrical Code, 2020 edition
Chapter 15.42: Plumbing Code; Uniform Plumbing Code, 2018 edition
Chapter 15.50: Fire Code; International Fire Code, 2018 edition
Chapter 15.82: Fuel Gas Code; International Fuel Gas Code, 2018 edition
Chapter 15.90 Energy Code

Section 3. These changes shall become codified the next business day following adoption by the North Pole City Council.

PASSED AND FORWARDED by a duly constituted quorum of the North Pole City Council for possible adoption 22nd day of February 2022.

_____
MICHAEL WELCH, Mayor

ATTEST:

_____
Melissa Dionne, City Clerk

Chapter 15.12 Building Code

15.12.010 Adoption.

The International Building Code (IBC), ~~2015~~ **2018** Edition, as published by the International Conference of Building Officials, together with the local amendments as set forth in this chapter, shall constitute the laws of the City relating to building regulations. Where the IBC conflicts with this code this code shall prevail. An electronic copy of the IBC and referenced standards is retained at the City offices. (Ord. 17-12 § 2(A), 2017; Ord. 16-12 § 2, 2016; Ord. 12-07 § 2, 2012)

15.12.020 Modifications.

The Building Official shall have the power to modify any of the provisions of the International Building Code adopted by this chapter upon application in writing by the owner or lessee or his duly authorized agent, when there are practical difficulties in the way of carrying out the strict letter of the code; provided, that the spirit of the code is observed, public safety secured, and substantial justice done. The particulars of the modification, when granted or allowed, and the decision of the Building Official thereon shall be entered upon the records of the Department, and a signed copy shall be furnished the applicant. (Ord. 17-12 § 2(A), 2017; Ord. 12-07 § 2, 2012)

15.12.030 Appeals.

Whenever the Building Official disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of the code have been misconstrued or wrongly interpreted, the applicant may appeal from the decisions of the Building Official to an appeals board of five members to be appointed by the Mayor/City Manager within thirty days from the date of the decision. The appointment of the appeals board will be on a case-by-case basis with the members of said board comprised of local design professionals, contractors, inspectors or other members of the public deemed knowledgeable of the subject matter by the Mayor/City Manager. (Ord. 17-12 § 2(A), 2017; Ord. 12-07 § 2, 2012)

15.12.040 Building permits – Compliance with ordinances.

It is established that no permit will be issued for the construction of new buildings or building within the corporate limits of the City which is inconsistent with the current comprehensive plan of the City or any City ordinances and regulations. (Ord. 17-12 § 2(A), 2017; Ord. 12-07 § 2, 2012)

15.12.050 Moving buildings.

A. No building of any kind or nature shall be moved to a location in the City from outside the limits of the City without approval of the Building Official, and, in the event any persons move into the City a building from a location outside the City, he or they shall not be permitted

to use the building either for residential or business purposes until the Building Official has approved the building for the purpose intended.

B. No building which is more than eight feet six inches wide, more than thirteen feet six inches above the ground, more than seventy feet zero inches total length including trailer, more than four feet zero inches in rear overhang, more than three feet zero inches in front overhang or more than the allowable road weight limitations shall be moved upon the City streets without first obtaining a moving permit. Before a moving permit may be issued, the following items must be provided: a copy of the State transport permit, proof of insurance, the proposed route and time and a bond of $1,000 (one thousand dollars) in the form of a certified check payable to the City. The moving permit must have the written approval of both the Building Official and Chief of Police or their designee. The bond will be returned less any expenses incurred by the City repairing public facilities, utilities or roadways damaged during the move. (Ord. 17-12 § 2(A), 2017; Ord. 12-07 § 2, 2012)

15.12.060 Local amendments to the International Building Code, 2015 Edition.
The amendments to the International Building Code, ~~2015~~ **2018** Edition, as published by the International Conference of Building Officials ~~and the State of Alaska 13 AAC 50.020 Building Codes~~ are hereby adopted by the City of North Pole as follows:

15.12.060 Local amendments to the International Building Code, 2018 Edition.
The amendments to the International Building Code, 2018 Edition, as published by the International Conference of Building Officials hereby adopted by the City of North Pole as follows:

Chapter 1 Scope and Administration. Delete this chapter**,** except for Sections 101.2 and 101.2.1, and replace with the 1997 Uniform Administrative Code.

Section 101.2.1 Appendices. Amend this section to read as follows: Appendices E and H are hereby adopted.

Section 202 Definitions. Create the following new definitions:

Adaptable. The ability of certain building spaces and elements, such as kitchen counters, sinks, and grab bars, to be added or altered so as to accommodate the needs of either disabled or non-disabled persons, or to accommodate the needs of persons with different types or degrees of disability.

Conventional Industry Tolerances. Plus or minus ½ (one half) inch up to 36 (thirty-six) inches and plus or minus 1 (one) percent over 36 (thirty-six) inches. Slopes may be plus or minus 1 (one) percent.

Family Child Care Home. A licensed facility that is located within a single-dwelling unit dwelling in which personal care services are provided by the owner or tenant that normally occupies the residence on a twenty-four-hour basis.

Water Dispenser. A plumbing fixture that is connected to the potable water distribution system of the premises and manually controlled by the user for the purpose of dispensing potable drinking water into a receptacle such as a cup, glass, or bottle. Or, a freestanding apparatus that is manually controlled by the user for the purpose of dispensing potable water into a receptacle which is not connected to the potable water distribution system and supplied with potable water from a container, bottle, or reservoir.

Section 202 Definitions. Delete the following definitions and replace as follows:

Foster Care Facilities. Facilities that provide care on a 24 (twenty-four)-hour basis to more than five children 2 ½ (two and one-half) years of age or less, including children related to the staff, shall be classified as Group I-2.

Nursing homes. Facilities that provide care, including both intermediate care facilities and skilled nursing facilities, serving more than two persons and any of the persons are incapable of self-preservation.

Townhouse. A single-family dwelling unit constructed in a group of two or more attached units in which each unit extends from foundation to roof and with a yard or public way on at least two sides. Each townhouse shall be considered a separate building as recognized by a recorded lot line between such units. Each townhouse unit shall be provided with separate water, sewer, heating, and electrical services.

Section 305.2 Group E, day care facilities. Revise this section as follows:

This group includes buildings and structures or portions thereof occupied by more than five children older than 2½ (two and one-half) years of age, including children related to the staff, who receive educational, supervision, or personal care services for fewer than 24 (twenty-four) hours per day.

Section 305.2.3 Delete this section and replace as follows:

Section 305.2.3 Family childcare homes.

Family childcare homes operating between the hours of 6:00 am and 10:00 p.m. may accommodate a total of twelve children, provided that no more than 5 children are under the age of 2 ½ (two and one-half) years. Family childcare homes as defined are classified as an (R3) occupancy and shall comply with section 907.2.10 (smoke alarms), section 915 (carbon monoxide detection) and section 1030 (emergency escape and rescue openings) for napping and sleeping rooms. Fire extinguishers shall be provided in accordance with the International Fire Code.

Section 305.3 Day Care Hours of Operation. Create a new section title to read as follows:

Day care hours of operation. A Day Care that operates between the hours of 10:00 p.m. and 6:00 a.m. shall be equipped with an approved automatic sprinkler system throughout, designed and installed in accordance with NFPA Standard 13 or equivalent system as approved by the Fire Chief. An approved emergency escape or rescue window meeting the requirements of IBC Section 1030 shall be provided in each sleeping or napping room. Smoke alarms and carbon monoxide detection shall be installed in accordance with sections 907.2.10 and 915. Fire extinguishers shall be provided in accordance with the International Fire Code. A Family Child Care Home that operates between the hours of 10:00 p.m. and 6:00 a.m. shall be equipped with an approved automatic sprinkler system throughout, designed and installed in accordance with NFPA Standard 13D or equivalent system as approved by the Fire Chief.

Section 308.2 Institutional Group I-1. Delete sections 308.2.3 and 308.2.4 and replace with the following:

Section 308.2.3 Three to 16 persons receiving custodial care. A facility housing more than 2 (two) persons and no more than 16 persons receiving custodial care shall be classified as a Group R-4.

Section 308.2.4 Fewer than 3 (three) persons receiving custodial care. A facility with fewer than 3 (three) persons receiving custodial care shall be classified as a Group R-3 or shall comply with the International Residential Code, as amended by the City of North Pole.

Section 308.3 Institutional Group I-2. Revise the first sentence of this section to read as follows:

Institutional Group I-2 occupancy shall include buildings and structures used for medical care on a 24 (twenty-four)-hour basis for more than two persons who are incapable of self-preservation.

Section 308.3 Institutional Group I-2. Delete section 308.3.2 and replace with the following:

Section 308.3.2 Fewer than 3 persons receiving medical care. A facility with fewer than 3 (three) persons receiving medical care shall be classified as a Group R-3 or shall comply with the International Residential Code, as amended by the City of North Pole.

308.5 Institutional Group I-4, day care facilities. Revise the first sentence of this paragraph to read as follows:

Institutional Group I-4 shall include buildings and structures, or portions thereof occupied by more than five persons of any age, including persons related to the staff, receiving custodial care for fewer than 24 (twenty-four) hours per day.

Section 310.4 Residential Group R-3. Delete the following in this section.

Care facilities that provide accommodations for five or fewer persons receiving care.

Section 310.4.1 Care facilities within a dwelling. Delete this section in its entirety.

Section 310.5 Residential Group R-4. Delete this paragraph in its entirety and replace as follows:

Residential group R-4 occupancy shall include buildings, structures, or portions thereof for more than two but not more than 16 (sixteen) persons, excluding staff, who reside on a 24 (twenty-four) hour basis in a supervised residential environment and receive custodial care. Occupancies which include Individuals who are not capable of responding to an emergency situation or incapable of self-preservation shall be classified as an I occupancy. Group R-4 shall be classified as either, Condition 1, as specified in 310.5.1, and sprinklered throughout as required by 903.3.1.3, or Condition 2, as specified in 310.5.2, and sprinklered throughout as required by section 903.3.1.2. This group shall include, but not be limited to, the following:

Section 406.3.2 Separation. Delete sections 406.3.2.1-406.3.2.2 and replace as follows.

406.3.2.1 Dwelling Unit Separation. The private garage shall be separated from all dwelling units by a one-hour fire-resistive wall assembly. The fire-resistive wall may terminate at the ceiling provided: a) the ceiling framing construction is protected by a layer of 5/8 (five eights) inch thick type X gypsum board and the area above the ceiling is a non-habitable attic space. Garages located beneath habitable rooms or dwelling units shall be separated by an approved one-hour fire-resistive horizontal floor ceiling assembly and one-hour fire-resistive vertical wall assemblies. Penetrations of the fire-resistive assemblies shall be fire stopped with materials approved for the hourly rating. Door openings between a private garage and a dwelling shall be provided with a minimum rating of 45 (forty-five) minutes and be equipped with self-closing and self-latching doors. In addition these doors shall be provided with gasket seals on the top and sides including installation of a tight fitting threshold. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted.

406.3.2.2 Ducts. Ducts in a private garage and ducts penetrating the walls or ceilings separating the dwelling unit from the garage shall be constructed of a minimum 0.019-inch (0.48mm) sheet steel (28-gauge galvanized steel) and shall have no openings into the garage. The duct shall be firestopped with materials approved for a one-hour fire-resistive assembly.

Section 506.3 Frontage increase. Add the following sentence to the paragraph.

For the purposes of allowable area limitations, required yards shall be permanently maintained.

Table 509 Incidental Uses. Amend table by adding footnote (a) to the first two rows to read as follows:

footnote (a). Regardless of the Btu rating, psi rating or horsepower rating a one-hour separation or automatic fire–extinguishing system is required for furnace or boiler rooms providing heat for group E, R-1, R-2, I, and R-4 Occupancies

Table 601 Fire-resistance rating requirements for building elements. Add footnote (g) to Columns IIA, IIIA, and VA.

g. In group E Occupancies, an automatic sprinkler system may be substituted for 1-hour fire-resistance-rated-construction provided the system is designed in accordance with section 903.3.1.1. The 1-hour substitution for the fire resistance of exterior walls shall not be permitted.

Section 603.1 Allowable Materials. Add the following item to allowable materials.

1.5 Furring for exterior bearing and nonbearing wall construction provided the building is sprinklered throughout and the required fire rating of the wall is 2 (two) hours or less.

Section 708.4.2 Fireblocks and draftstops in combustible construction.

Delete exception 2 in its entirety.

Revise exception 4 to read as follows:

In R-2 occupancies that do not exceed four stories in height, the attic space shall be subdivided into areas not exceeding 3,000 (three thousand) square feet.

Section 718.4 Draftstopping in attics. Revise the second sentence as follows:

Draftstopping in attic spaces shall be installed to subdivide combustible attic spaces and combustible concealed roof spaces such that any horizontal area does not exceed 3,000 (three thousand) square feet, and the greatest horizontal dimension does not exceed 60 (sixty) feet.

Section 808.1.1.1 Suspended acoustical ceilings. Delete this section in its entirety and replace as follows:

Suspended acoustical ceiling systems shall be installed in accordance with the provisions of ASTM C635 and ASTM C636 and the following installation standards.

1. A heavy duty-rated grid system shall be used in all occupancies. The perimeter wall angle shall be deemed to provide structural support for the perimeter cross-tee and main runner intersections and the edge support for the ceiling tiles provided it is secured.
2. Exception: Intermediate duty rated systems may be used in R-3 Occupancies.
3. Changes in the ceiling plane elevation shall be provided with structural support or additional wires capable of maintaining a positive bracing system.
4. Cable trays and electrical conduits shall be independently supported and braced independently of the ceiling.
5. Compression posts are not required if the distance from the plane of the suspended ceiling and the lowest structural framing elements are 24 (twenty-four) inches or less.
6. Cross-tees, which are 8 (eight) inches or less in length and located at the perimeter of any room, do not require additional vertical 12 (twelve)-gauge support wires.
7. A 90 (ninety)-degree cross tee return system may be used to support the cross-tee to the perimeter wall angle. Rivets, zip-it wall anchors and/or screws may be used to positively attach the cross tee to the perimeter wall angle or wall substrate in lieu of

additional perimeter wires. The installation shall be in accordance with this suspended ceiling policy.

8. Lighting fixtures seismically supported in accordance with CISCA 3-4 are not required to be positively attached to the suspended grid members.
9. Recessed can or bullet type lighting fixtures weighing less than 20 (twenty) pounds shall be supported to the grid system and shall be positively attached to the structure above with a minimum of one 12 (twelve)-gauge wire or safety chain. Fixtures weighing more than twenty pounds shall be supported with a minimum of two 12 (twelve)-gauge wires or two safety chains attached to the fixture and secured to the structure above. These wires may be slack.
10. Suspended acoustical ceiling systems may not be used to provide lateral support for non-bearing partitions unless: a) designed by an engineer or b) installed in accordance with an approved evaluation report recognized by the International Building Code.
11. Ceiling mounted air terminals weighing less than 20 (twenty) pounds shall be positively attached to the ceiling suspension main runners or cross tees having the same carrying capacity as the main runners. Air terminals weighing more than twenty pounds shall be provided with a minimum of two 12 (twelve)-gauge wires, connected from the terminal to the structure above and shall be positively attached to the grid system.
12. Corridors which are 6 (six) feet in width or less may have the seismic splay wires installed in the direction of the long axis of the corridor. These splay wires shall be spaced 12 feet on center and splayed at a 45 (forty-five)-degree angle. Splay wires are not required in the short axis of the corridor.
13. When all ceiling tiles are replaced in an existing non-complying suspended ceiling, the lights and mechanical air terminals shall be upgraded and seismically braced prior to the new tile installation.
14. When lighting fixtures are replaced or relocated in an existing suspended ceiling, the new lights or relocated lights shall be seismically-braced in accordance with CISCA 3-4 and this section.
15. When mechanical ductwork or air terminals are altered or relocated in an existing suspended ceiling, those mechanical devices shall comply with the seismic requirements with CISCA and this section.
16. When 50% (fifty) or more of the grid system is replaced or altered, the entire grid system shall be upgraded to meet the current seismic standards in accordance with CISCA 3-4.
17. Two-inch-wide perimeter angles are not required.

Section 903.2.3Group E. Delete this section in its entirety and replace as follows:

An automatic sprinkler system shall be provided throughout all Group E occupancies. An automatic sprinkler system shall also be provided for every portion of educational buildings below the level of exit discharge. Day care uses that are licensed to care for more than 5 persons between the hours of 10 p.m. and 6 a.m. shall be equipped with an automatic sprinkler system designed and installed in accordance with Section 903.3.1.3, or an approved equivalent system. The use of a firewall or fire barrier does not establish a separate building or fire area for the purpose of this section.

Exceptions

1. Buildings with E occupancies having an occupant load of 49 (forty-nine) or less.
2. Day care uses not otherwise required to have automatic sprinkler system by other provisions of the code.

Section 903.2.8 Group R. Add the following Exception.

Exception: Group R Buildings and Dwellings with fewer than four dwelling units.

Section 903.2.8.4 Care facilities. Delete this section in its entirety.

Section 903.2.11.7. Pit Sprinklers. Add a new subsection and title to read as follows:

Pit Sprinklers. Sprinklers shall be installed in the bottom of all new and existing elevator pits below the lowest projection of the elevator car but no higher than 24 (twenty-four) inches from the bottom of the pit.

Section 903.3.1.1 NFPA 13 sprinkler systems is revised by adding a new Subsection 903.3.1.1.3 to read as follows:

Elevator Hoist ways and Machine Rooms. Where the provisions of this code require the installation of automatic sprinkler systems, such installation in Elevator hoist ways and machine rooms shall be in accordance with NFPA [13, Section 8.15.5] 13-2016 and ASME A17.1 Safety Code for Elevators and Escalators, 2016 edition.

Exceptions

Sprinklers may be deleted in an elevator machine room when such room is:

1. Separated from the remainder of the building in accordance with Section 3005.4.
2. Smoke detection is provided in accordance with NFPA 72
3. Notification of alarm activation is received at a constantly monitored location.

Section 903.4.2 Alarms. Amend this section by adding the following sentence to the paragraph:

Buildings equipped with a sprinkler system without an alarm system shall have at least one notification device (horn/strobe) located inside the building in a commonly occupied area to alert occupants of a sprinkler activation.

Section 907.2.3 Group E. Revise this section by adding a second paragraph to read as follows:

Rooms used for sleeping or napping purposes within a day care use for a Group E occupancy shall be provided with smoke alarms that comply with section 907.2.10 and carbon monoxide detection as specified in section 915.

Section 915.1 General. Revise the last sentence of this paragraph to read as follows.

Carbon monoxide detection shall be installed in existing buildings in accordance with Chapter 11 of the International Fire Code and this section.

Section 915.1.7 Vehicle parking. Add this subsection and the following.

Carbon monoxide detection shall be provided where there is located any vehicle parking within 25 (twenty-five) feet of any direct air intake openings.

Section 915.3 Carbon Monoxide Detection. Add a sentence to this section to read as follows.

In new construction, all carbon monoxide detectors and alarms located within a single dwelling unit shall be interconnected in such a manner that actuation of one alarm shall activate all of the alarms within the individual dwelling unit.

Table 1006.3.3(1) Stories with One Exit or Access to One Exit for R-2 Occupancies.
Remove the word Basement from the first row.

Table 1006.3.3(2) Stories with One Exit or Access to Other Occupancies. Revise the first row to read as follows:
First story above grade plane.

Section 1006.3.3.2 Exits from basements. Create a new subsection and title to read as follows:

Exits from basements.

Basements in all occupancies except Group R-3, shall be provided with a minimum of at least two independent exits.

Exceptions

Basements used exclusively for the service of the building.

1. Basements used exclusively for storage purposes and limited to 750 (seven hundred fifty) square feet.

2. Basements used for private offices, maintenance rooms or laundry rooms and similar uses limited to an aggregate floor area of 500 (five hundred) square feet, provided a hard-wired smoke detector is installed in the basement and interconnected to a smoke detector located on the level of discharge as approved by the City Fire Chief or designee.

3. Basements used for private offices, maintenance rooms or laundry rooms and similar uses which are provided with a direct exterior exit to grade shall be limited to an aggregate floor area of 750 (seven hundred fifty) square feet, provided a hard-wired smoke detector is installed in the basement and interconnected to a smoke detector on the level of exit discharge as approved by the City Fire Chief or designee.

4. Buildings which are sprinklered throughout and contain a basement may have one exit provided:

5.1 Basements are used exclusively for storage purposes and limited to 1500 (one thousand five hundred) square feet.

5.2 Basements are used for private offices, maintenance rooms, or laundry rooms and similar uses limited to an aggregate floor area of 1000(one thousand) square feet.

5.3 Basements are used for private offices, maintenance rooms or laundry rooms and similar uses and are provided with a direct exterior exit to grade shall be limited to an aggregate floor area of 1500 (one thousand five hundred) square feet.

Section 1010.1.9.4 Locks or Latches. Add condition 7 as follows:

7. In Groups B, F, M and S occupancies, a single thumb turn may be used in exit doors, where the occupant load is 100 (one hundred) or less, in conjunction with an approved lock set when the thumb turn requires no more than one-half turn to unlock.

Hardware height shall comply with Section 1010.1.9.2. This exception does not apply when panic hardware is required or installed.

Section 1010.1.9.4.1 Manual security bar for limited use. Create a new subsection and title to read as follows:

Manual security bar for limited use. Assembly occupancies such as restaurants, taverns and lounges and B, F, M, S occupancies with an occupant load of less than 100 (one hundred) may utilize a manual security bar for the second required exit when the building is not occupied by the public. The security bar shall be pre-approved by the fire marshal before installation. The bar must be easily removed and shall not be provided with padlocks, chains or other locking devices requiring special tools or knowledge. The bar shall be identified by a contrasting color. The exit door shall be provided with a sign stating, “This door to remain unlocked during business hours.” The use of this provision may be revoked by the fire marshal for non- compliance.

Assembly occupancies with an occupant load of 300 (three hundred) or less which are provided with an approved sprinkler system throughout may install a security bar on the second required exit as specified above. The conditions and approval of the security bar installation shall be kept on file with the fire marshal. The use of this provision may be revoked by the fire marshal for noncompliance.

Section 1011.5.2 Riser height and tread depth. Amend section by adding an exception #6 to read as follows:

Stairs or ladders used only to attend equipment are exempt from the requirements of Section 1011.

Section 1030.1 General. Revise the first sentence of the paragraph to read as follows:

In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue in Group R, I-1, and day care occupancies where napping or sleeping rooms are provided and in the following occupancies.

Section 1030.1 Delete exception 1 & 4

Section 1030.2 Minimum size. Delete the exception.

1102.1 Design. Add the following sentence:

The design and construction of buildings or portions of buildings to meet the requirements of the Americans with Disabilities Act and Fair Housing Act is the exclusive responsibility of the owner of the structure.

1103.1 Where required. Add the following sentence to this section:

Subject to the approval of the Building Official, areas where work cannot reasonably be performed by persons having a severe impairment (mobility, sight or hearing) need not have specific features which provide accessibility to such persons.

1103.2.3 Detached dwellings. Delete this paragraph as replace as follows:

Detached one- and two-family dwellings and three-unit dwellings, including accessory structures and their associated sites and facilities, are not required to be Accessible.

1108.2.7 Assistive listening systems. Add the following sentence to this section:

Assistive listening systems shall be required in groups B, E, and M occupancies which contain rooms of assembly.

1111.1 Signs. Delete the Exception to Item 1.

1111.3 Other signs. Add the following item to this section:

8. Building directories are required for the following occupancies as defined by the building code: Groups A, B, E, I, & M greater than 6000 (six thousand) sq. ft. or more than one story. Regardless of building size, directories shall be provided for governmental office buildings, medical care facilities, shopping malls, public transportation facilities, senior citizen housing and hotels. Directories shall be provided within or immediately adjacent to the main entrances as approved by the Building Official. Directory signage shall comply with ICC A117.1.

Section 1202.2 Roof Ventilation. Delete this section in its entirety and replace with the following:

Enclosed attics and enclosed rafter spaces formed where ceilings are applied direct to the underside of the roof rafters or trusses shall have cross ventilation for each separate space by ventilating openings protected against the entrance of snow and rain. The net free ventilation area for each space shall be not less than 1/150 (one, one hundred fifth) of that area of the space ventilated. One-half of this required ventilating area shall be provided in

the upper one-third portion of the space to be ventilated and the remaining required ventilating area shall be evenly distributed at eave vents. A minimum continuous opening of 1 ½ (one and one-half) inches in width shall be provided at the eave vents. The openings shall be covered with corrosion-resistant metal mesh covering.

Section 1202.4.1 Ventilation openings. Delete sections 1202.4.1 through 1202.4.4 in their entirety and replace with the following:

Each under-floor space shall be ventilated by an approved mechanical means or by openings in exterior foundation walls. Such openings shall have a net area of not less than 0.1 (one tenth) square foot for each 150 (one fifty) square feet of under-floor area. There shall be two openings located as close to corners as practical on opposite sides to provide cross ventilation. The openings shall be covered with corrosion resistant wire mesh approximately ¼ (one quarter) inch in size. All structures with a crawl space shall have a minimum 6 (six) mil ground vapor retarder to prevent the flow of water vapor from soils into the heated building interior.

Section 1204.2 Natural light. Delete the paragraph in its entirety and replace as follows:

Guest rooms and habitable rooms within a dwelling unit or congregate residence shall be provided with natural light by means of exterior glazed openings with any area not less than one twentieth of the floor area of such rooms with a minimum of 5 (five) square feet, except that minimum egress requirements shall govern.

1208.2 Attic Spaces. Add a sentence as follows:

Attic access shall not be located in a room containing bathing facilities.

1209.2.1 Floors and wall bases. Delete this paragraph and replace with the following:

In other than dwelling units, toilet and bathing room floors shall have a smooth, nonporous, non-absorbent surface such as non-cushioned sheet vinyl, sealed concrete or ceramic tile with sealed joints or other approved materials. Base shall be of similar materials, shall extend up the wall 4 (four) inches (127 mm) minimum, and shall be sealed to the flooring and wall surface and allowing differential movement without water penetration.

1209.2.2 Walls and partitions. Revise this section by renaming the section and delete the first paragraph to read as follows:

Walls and partitions wainscot.

Walls and partitions within 2 (two) feet (610 mm) of the front and sides of urinals, water closets, and lavatories shall have a smooth, non-porous, hard, non-absorbent surface such as non-cushioned sheet vinyl, sealed concrete, ceramic tile with sealed joints, approved plastic panels, or other approved materials, installed to a minimum height of 4 (four) feet above the finished floor and except for structural elements, the materials in such walls shall be of a type that is not adversely affected by moisture.

Delete exception 1 and 2 and replace as follows:

Exception

1. Dwelling Units

1209.2.2.1 Walls and partitions moisture resistive gypsum board application. Create a new subsection and title to read as follows:

In addition to the wainscot provisions as required by section 1210.2.2, moisture resistive gypsum board, cement board, or other approved material shall be applied to walls within two feet from the front and sides of urinals, water closets, tub, shower, lavatories, and service sinks. Moisture resistive gypsum board shall be applied on walls in the spaces as stated above in all occupancies up to a height of 4 (four) feet. Walls immediately adjacent to tub and shower areas shall be provided with moisture resistive gypsum board to a height of 7 (seven) feet above the drain inlet.

1209.3.3 Single-user Toilet Rooms, Urinal Rooms, and Bathing Rooms. Add this subsection and the following.

Single-user water closets, urinals, and bathing fixtures provided according to sections 2902.1.1 exception 2, 2902.1.2, and 2902.2 exception 6, shall occupy a separate room and include the following:

1. floor-to-ceiling walls,
2. door equipped with stops, privacy lock from inside, and occupancy indicator outside.
3. separate exhaust and lighting.

Chapter 13 ENERGY EFFICIENCY. Delete this chapter in its entirety and refer to the International Energy Conservation Code as amended.

Section 1503.6 Protection from falling snow and ice. Add a new section.

Where the accumulation of snow and/or ice on a structure creates a hazardous condition, the areas below the accumulation shall be protected from falling snow and/or ice. These areas shall include (but not be limited to) building entrances and exits, pedestrian, driveways, public right-of-way, and utility locations for gas meters, fire department connections, and electrical meters, services, and disconnects.

Section 1507.1.2 Ice barrier. Delete this section in its entirety and replace as follows:

Where a non-energy heel truss design is utilized, an approved self-adhering polymer modified bitumen sheet shall be installed on the roof deck extending from the eave up the roof to 36 (thirty-six) inches inside the exterior wall line of the building.

Exception

Detached accessory structures that contain no conditioned floor area.

Table 1507.1.1(2) Underlayment application. For Section 1507.2 In the first sentence, change “two units vertical” to “three units vertical”.

Section 1507.2.2 Slope. Delete this paragraph and replace as follows:

Asphalt shingles shall be used only on roof slopes of two units vertical in 12 (twelve) units horizontal or greater. Required underlayment shall be provided as follows: A roof slope of 2:12 shall be provided with an approved self–adhering polymer modified bitumen on the entire roof surface. A roof slope of 3:12 shall be provided with double underlayment in accordance with section 1507.2.8. Roof slopes of 4:12 or greater shall be provided with a single layer of underlayment in accordance with section 1507.2.8.

Section 1507.2.5 Fasteners. Add an exception to read:

Staples may be substituted for nails on new work only. They must be galvanized or stainless steel with a 1 (one) inch crown and of sufficient length to completely penetrate the shingle and roof sheathing. Staples must be straight and flush with the shingle surface.

Section 1608.4 Roof snow loads. Add a new section to read as follows:

In no case shall the roof design snow load be less than 50 (fifty) psf**.** There is no snow load duration increase allowed for wood framed or wood trussed roofs. A minimum ground snow load (P_g) of 60 (sixty) pounds per square foot shall be used in the determination of drift loads.

Section 1608.5 Sliding snow. Create a new subsection and title to read as follows:

Metal roofs with a slope greater than 1:12 shall have barriers installed to resist the sliding action and subsequent dumping of ice and snow on persons and property. These barriers shall be constructed to specifically protect required public parking areas, public walkways, entrances, and required exit discharge.

Section 1803.1 General. Add the following sentence to the paragraph.

The effects of soil densification and differential settlement shall also be considered in the investigation, reporting, and determination of potential soil strength loss when conditions warrant, also reference Sections 1803.5.11 and 1803.5.12.

Section 1803.5.2 Questionable soil. Add the following sentence to the paragraph.

In the event permafrost conditions are suspected, a soils investigation may be required**.**

Section 1804.4 Site grading. Add the following sentence to the last paragraph.

It shall be the responsibility of the building owner to assure that discharge of roof and surface runoffs disposed of without affecting adjacent property.

Section 1804.6 Compacted fill material. Delete the first sentence and replace with the following:

Where footings will bear on compacted fill material, the compacted fill shall, when required by the Building Official, comply with the provisions of an approved report, which shall contain the following:

Fill material used to support building foundations and/or floor slabs shall consist of not more than five percent by weight of particles passing the No. 200 (two hundred) sieve and shall be compacted to a minimum of 95 (ninety-five) percent of maximum density. The Building Official may require that verification of compaction be submitted in the event a site inspection reveals questionable soil conditions.

Section 1805.4.2 Foundation drain. Delete this section in its entirety.

Section 1806.2 Presumptive load-bearing values. Add a third paragraph to the section to read as follows:

Footings shall bear upon in-situ, coarse-grained soils as defined in ASTM 2487 with the exception of groups SM and SC. Soils grouped in the SM and SC classifications shall be acceptable provided the footings are at a depth as required above and placed upon a minimum of 1'-6" (one foot six) of compacted, clean gravel fill.

Section 1807.1.3 Rubble Stone Foundation Walls. Delete this section and referenced tables in its entirety.

Section 1807.1.6.2.1 Seismic requirements. Replace with:

Plain concrete foundation walls are prohibited in Seismic Design Category D.

Section 1807.1.6.3.1 Masonry foundation walls. Replace 1. with:

Table 1807.1.6.3(2), 1807.1.6.3(3), or 1807.1.6.3(4) for masonry walls with reinforcement. Plain masonry foundation walls are prohibited in seismic design category D.

Table 1807.1.6.3(1) Plain masonry foundation walls. Delete this section in its entirety.

Section 1807.1.6.3.1 Alternative foundation wall reinforcement. Delete this section in its entirety and replace as follows:

In lieu of the reinforcement provisions for masonry foundation walls in table 1807.1.6.3(2), 1807.1.6.3(3), or 1807.1.6.3(4), alternative reinforcing bar sizes and spacing having an equivalent cross-sectional area of reinforcement per linear foot of wall shall be permitted to be used, provided the spacing of reinforcement does not exceed 48 (forty-eight) inches and reinforcing bar sizes do not exceed No.11.

Section 1809.1 General. Delete this section and replace as follows:

Shallow foundations shall be designed by a registered engineer licensed by the State of Alaska. Such design shall comply with sections 1809.2 through 1809.13.

Section 1809.2. Supporting soils. Add the following sentence to the paragraph.

Shallow footings and foundations shall be built on unfrozen, undisturbed, non-frost susceptible soil, compacted unfrozen NSF fill, or controlled low-strength material (CLSM). Compacted fill material shall be placed in accordance with Section 1804.5. CLSM shall be placed in accordance with Section 1804.6.

Section 1809.4 Depth and width of footings. Delete this section in its entirety and replace as follows:

The minimum depth of footings below the undisturbed ground surface shall be 3'- 6"(three feet six inches) unless substantiated by a design prepared by a registered engineer licensed in the State of Alaska. The minimum width of footings shall be in accordance with a design prepared by a registered engineer licensed in the State of Alaska.

Section 1809.5 Frost protection. Delete item 1 and replace with the following:

1. The minimum depth of footings shall be 3'-6" (three feet six inches) below the ground surface.

Delete item 2 under the exceptions and replace with the following:

2. Area of 400 (four hundred) square feet (56 m^2) or less for light-framed construction.

Delete the last sentence of the paragraph and replace with the following:

Footings shall not bear on frozen soil.

Section 1809.7 Prescriptive footings for light frame construction. Delete this section in its entirety including table 1809.7 and replace as follows:

Where a specific design is not provided, concrete footings supporting walls of light-frame single family–duplex residential construction are permitted to be constructed in accordance with the City of North Pole Standard Foundation Details SFD1-SFD8. Commercial foundation designs shall be prepared by a registered engineer licensed by the State of Alaska.

Section 1809.8 Plain concrete footings. Delete this section in its entirety.

Section 1809.9 Masonry-unit footings. Delete this section and the exception in its entirety and replace as follows:

Masonry-unit footings shall be reinforced and shall be designed by a registered engineer licensed by the State of Alaska**.**

Section 1809.12 Timber footings. Add the following sentence to the end of the paragraph.

Timber footings shall be designed by a registered engineer licensed by the State of Alaska.

Section 1905.1.7 ACI 318, Section 14.1.4. Amend this section by revising paragraph 14.1.4 to read as follows:

14.1.4.1 - Structures assigned to seismic design category D, E or F shall not have elements of structural plain concrete**.**

Section 1905.1.7 ACI 318, Section 14.1.4. Amend this section by further deleting sub paragraphs (a), (b) and (c).

Section 2304.8.2 Structural Roof Sheathing. Add a new paragraph to read as follows:

Roof sheathing installed on structural supports spaced 2 (two) feet on center shall have a minimum 32/16 span rating with panel edge clips placed midway between such supports. Roof sheathing with a minimum 40/20 span rating may be applied to framing supports spaced at 2 (two) feet on center without panel edge clips**.**

Section 2304.8.2.1 Spaced lumber sheathing. Add a new subsection and exception to read as follows:

Spaced lumber sheathing installed on roofs located in seismic design category D shall be designed by a licensed engineer registered in the State of Alaska. Drawings and supporting calculations shall be submitted for review and approval. Truss design shall consider effects of spaced sheathing.

Exception

Detached residential garages, storage sheds green houses, and other non-habitable accessory structures. A shop building or warehouse does not qualify for the exception unless designed by an Engineer licensed by the State of Alaska. Truss design shall consider effects of spaced sheathing.

Section 2305.4. Framing connections. Create a new section and title to read as follows:

Framing connections. Framing connections shall be installed at each exterior bearing end of each truss or rafter and shall have a minimum lateral load capacity of not less than 400 pounds unless otherwise substantiated by design calculations provided by an engineer licensed in the State of Alaska**.**

Table 2306.2.(1) Allowable Shear. Add the following sentence to footnote (c.)

Where necessitated by sheathing fastener spacing, two 2 (two)-inch nominal members fastened together in accordance with section 2306.1 to transfer design shear value between the framing members is permitted.

Table 2306.2.(2) Allowable Shear. Add the following sentence to footnote (e).

Where necessitated by sheathing fastener spacing, two 2 (two)-inch nominal members fastened together in accordance with section 2306.1 to transfer design shear value between the framing members is permitted.

Section 2306.3 Wood-frame shear walls Amend this section by adding a last sentence of the paragraph to read as follows:

Shear walls sheathed with Portland cement plaster, gypsum lath, gypsum sheathing, or gypsum board shall not be used to resist seismic forces in structures assigned to seismic design category D, E or F.

Table 2306.3(1) Allowable Shear. Add the following sentence to footnoted.

Where necessitated by sheathing fastener spacing, two 2 (two)-inch nominal members fastened together in accordance with section 2306.1 to transfer design shear value between the framing members is permitted.

Section 2308.2.3 Allowable loads. Amend this section by revising item 3 to read as follows:

Ground snow loads shall not exceed 60 (sixty) psf.

Section 2308.3.1. Foundation plates or sills. Amend this section by adding the following sentence to the end of the paragraph to read as follows:

A minimum washer of 2 (two) inch by 2 inch by 3/16 (three-sixteenth) inch is required for each sill plate bolted connection unless an alternate design is provided by a registered engineer licensed by the State of Alaska.

Section 2509.3 Limitations. Delete item 1 in its entirety.

Chapter 27 ELECTRICAL. Delete this chapter in its entirety and replace with the National Electric Code as adopted and amended by the City of North Pole.

Section 2901.1 Scope. Revise this section by deleting the reference to the International Plumbing Code and International Private Sewage Disposal Code.

Add the following note to the beginning of this paragraph:

Where reference to any Plumbing Code is made in this Code it shall be taken to mean the *Uniform Plumbing Code* as adopted and amended by the City of North Pole.

Table 2902.1 Minimum Number of Required Plumbing Fixtures. Revise the fourth column heading as follows: Water Closets

Table 2902.1 Minimum Number of Required Plumbing Fixtures. Revise the seventh column heading as follows: Drinking Fountains

Table 2902.1 Minimum Number of Required Plumbing Fixtures. Delete the footnotes to the table and replace as follows:

Add footnotes (f) and (h) in the "*water closet*" column heading; add footnote (h) in the *"other"* column heading. Add footnote (g) at row 4 under the Factory and Industrial heading and under the Bathtubs and Showers column.

a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by the *International Building Code*.
b. Toilet facilities for employees shall be separate from facilities for inmates or care recipients.
c. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient rooms shall be permitted where such room is provided with direct access from each patient room and with provisions for privacy.
d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
e. For business and mercantile occupancies with an occupant load of 15 (fifteen) or fewer, service sinks shall not be required.
f. In each bathroom or toilet room, urinals shall not be substituted for more than 67 (sixty-seven) percent of the required water closets in assembly and educational occupancies. Urinals shall not be substituted for more than 50 (fifty) percent of the required water closets in all other occupancies.
g. Emergency showers and eyewash stations shall conform to ISEA Z358.1.
h. Floor drains shall be installed in Toilet rooms containing two or more water closets or a combination of at least one water closet and one urinal, except in a dwelling unit. Floor

drains shall also be installed in commercial kitchens, laundry rooms in commercial buildings, and common laundry facilities in multi-family dwelling buildings.

2902.1.1 Fixture calculations. Number the Exception and add two exceptions as follows.

Exceptions

1. The total occupant load shall not be required to be divided in half where approved statistical data indicates a distribution of the sexes of other than 50 (fifty) percent of each sex.
2. Where multiple-user facilities are designed to serve all genders, the minimum fixture count shall be calculated 100 percent, based on total occupant load. In such multiple-user facilities, each fixture type shall be in accordance with ICC A117.1 and each toilet, urinal, bath, and shower that is provided shall be located in a separate room in accordance with 1209.3.3.
3. Distribution of the sexes is not required where single-user water closets and bathing room fixtures are provided in accordance with Section 2902.1.2.

2902.1.2 Single-user toilet and bathing room fixtures. Delete this section and replace with the following.

2902.1.2 Single-user toilet and bathing room fixtures.

The plumbing fixtures in single-user toilet and bathing rooms, including family or assisted-use toilet and bathing rooms that are required by Section 1110.2.1, shall contribute toward the total number of required plumbing fixtures for a building or tenant space. Single-user toilet and bathing rooms, and family or assisted-use toilet rooms and bathing rooms shall be identified as being available for use by all persons regardless of their sex.

The total number of fixtures shall be permitted to be based on the required number of separate facilities or based on the aggregate of any combination of single-user or separate facilities.

2902.2 Separate facilities. Add the following exceptions.

5. Separate facilities shall not be required to be designated by sex where single-user toilet rooms are provided in accordance with Section 2902.1.2.
6. Separate facilities shall not be required where rooms having both water closets, urinals, and lavatory fixtures are designed for use by both sexes and privacy for water closets and urinals are installed in accordance with Section 1209.3.3 as amended.

Section 2902.5 Drinking fountains. Delete sections 2902.5 and 2902.6 and replace with the following.

2902.5 Drinking fountains. Drinking fountains shall be provided according to Table 2902.1 and this section.

2902.5.1 Location. Drinking fountains shall not be required to be located in individual tenant spaces provided that public drinking fountains are located within a travel distance of 500 feet from the most remote location in the tenant space and not more than one story above or below the tenant space. Where the tenant space is in a covered or open mall, such distance shall not exceed 300 (three hundred) feet. Drinking fountains shall be located on an accessible route.

2902.5.2 Prohibited location. Drinking fountains, water coolers, and water dispensers shall not be installed in public restrooms.

2902.5.3 Small occupancies. Drinking fountains shall not be required for an occupant load of 15 or fewer.

2902.5.4 Provide high and low drinking fountains. Where drinking fountains are required, not fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair and one drinking fountain shall comply with the requirements for standing persons.

Exception

A single drinking fountain with two separate spouts that complies with the requirements for people who use a wheelchair and standing persons shall be permitted to be substituted for two separate drinking fountains.

2902.5.5 Substitution. Where restaurants provide drinking water and container free of charge, drinking fountains shall not be required in those restaurants. In other occupancies, excluding A and E occupancies, water dispensers shall be permitted to be substituted for not more than 50 (fifty) percent of the required drinking fountains. In B occupancies with fewer than 75 (seventy-five) occupants, water dispensers or sinks shall be permitted to be substituted for the required drinking fountains.

Section 3002.1 Hoistway Enclosure Protection. Add the following:

Elevator hoistway shaft enclosure walls not required to have a fire resistive rating may be constructed with glass. Such glass shall be laminated glass that passes the requirements of ANSI A17.1.

Chapter 35 Referenced Standards. Revise the following Standard reference, and add the code section to those listed under ICC section.

ICC A117.117: Accessible and Usable Buildings and Facilities

2902.1.1

Chapter 15.16 Existing Building Code

15.16.010 Adoption.

The Existing Building Code (IBC), 2018 Edition, as published by the International Conference of Building Officials, together with the local amendments as set forth in this chapter, shall constitute the laws of the City relating to building regulations. Where the IBC conflicts with this code this code shall prevail. An electronic copy of the IBC and referenced standards is retained at the City offices. (Ord. 17-12 § 2(A), 2017; Ord. 16-12 § 2, 2016; Ord. 12-07 § 2, 2012)

15.16.020 Modifications.

The Building Official shall have the power to modify any of the provisions of the International Building Code adopted by this chapter upon application in writing by the owner or lessee or his duly authorized agent, when there are practical difficulties in the way of carrying out the strict letter of the code; provided, that the spirit of the code is observed, public safety secured, and substantial justice done. The particulars of the modification, when granted or allowed, and the decision of the Building Official thereon shall be entered upon the records of the Department, and a signed copy shall be furnished the applicant. (Ord. 17-12 § 2(A), 2017; Ord. 12-07 § 2, 2012)

15.62.030 Appeals.

Whenever the Building Official disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of the code have been misconstrued or wrongly interpreted, the applicant may appeal from the decisions of the Building Official to an appeals board of five members to be appointed by the Mayor/City Manager within thirty days from the date of the decision. The appointment of the appeals board will be on a case-by-case basis with the members of said board comprised of local design professionals, contractors, inspectors or other members of the public deemed knowledgeable of the subject matter by the Mayor/City Manager. (Ord. 17-12 § 2(A), 2017; Ord. 12-07 § 2, 2012)

15.16.040 Building permits – Compliance with ordinances.

It is established that no permit will be issued for the construction within existing buildings or building within the corporate limits of the City which is inconsistent with the current comprehensive plan of the City or any City ordinances and regulations. (Ord. 17-12 § 2(A), 2017; Ord. 12-07 § 2, 2012)

15.16.060 Local amendments to the Existing Building Code, 2018 Edition.

The amendments to the Existing Building Code, 2018 Edition, as published by the International Conference of Building Officials are hereby adopted by the City of North Pole as follows:

Chapter 1, Scope and Administration. Delete Chapter 1 in its entirety and refer to the City of Fairbanks Administrative Code, as amended.

Section 302.1 Applicability. Add the following at the end of this paragraph.

The design and construction of buildings or portions of buildings to meet the requirements of the Americans with Disabilities Act and Fair Housing Act is the exclusive responsibility of the owner of the structure.

Section 302.3 Additional codes. Delete this paragraph and substitute the following:

Alterations, *repairs*, *additions*, and *changes of occupancy* to, or relocation of, existing buildings and structures shall comply with the provisions for alterations, repairs, additions and changes of occupancy or relocation, respectively, in this and the International Energy Conservation Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, Uniform Plumbing Code, International Residential Code, NFPA 70, and the City of Fairbanks Administrative Code. Where provisions of the other codes conflict with provisions of this code, the more restrictive shall govern.

Section 505.3 Replacement window emergency escape and rescue openings. Delete the first paragraph and conditions 1 and 2**.**

Section 702.5 Replacement window emergency escape and rescue openings. Delete the first paragraph and conditions 1 and 2.

Chapter 15.20 Residential Code

15.20.010 Adoption.

The International Residential Code, ~~2015~~ **2018** Edition, as published by the International Conference of Building Officials, and every part thereof, together with the local amendments as set forth in NPMC 15.20.040, shall constitute the laws of the City relating to the construction of one- and two-family housing. An electronic copy of the International Residential Code is retained at the City offices. (Ord. 17-12 § 2(B), 2017; Ord. 12-08 § 2, 2012)

15.20.020 Modifications.

The Building Official shall have the power to modify any of the provisions of the International Residential Code adopted by this chapter upon application in writing by the owner or lessee or his duly authorized agent, when there are practical difficulties in the way of carrying out the strict letter of the code; provided, that the spirit of the code is observed, public safety secured, and substantial justice done. The particulars of the modification, when granted or allowed, and the decision of the Building Official thereon shall be entered upon the records of the Department, and a signed copy shall be furnished the applicant. (Ord. 17-12 § 2(B), 2017; Ord. 12-08 § 2, 2012)

15.20.030 Appeals.

Whenever the Building Official disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of the code have been misconstrued or wrongly interpreted, the applicant may appeal from the decisions of the Building Official to the Mayor/City Manager within thirty days from the date of the decision. The appointment of the appeals board will be on a case-by-case basis with the members of said board comprised of local design professionals, contractors, inspectors or other members of the public deemed knowledgeable of the subject matter by the Mayor/City Manager. (Ord. 17-12 § 2(B), 2017; Ord. 12-08 § 2, 2012)

15.20.040 Local amendments to the International Residential Code, ~~2015~~ **2018** Edition.

The amendments to the International Residential Code, ~~2015~~ **2018** Edition, as published by the International Conference of Building Officials, are hereby adopted by the City of North Pole as follows:

Chapter 1 Scope and Administration

Section R101.2 Scope. Delete Exception 5 and Revise Exceptions 3 and 4 as follows:

3. A facility with fewer than 3 persons receiving custodial care within a dwelling unit.

4. A facility with fewer than 3 persons receiving medical care within a dwelling unit.

Delete the following sections: R103 and R104.10.1, and refer to the City of North Pole Administrative Code.

Section R105.2 Work exempt from permit. Amend this section by deleting items 1, 2, and 10 and replace as follows: Further amend this section by adding the following item #11.

1. One story detached structures used as garages, tool and storage sheds, playhouses, and similar uses, provided the floor area does not exceed 200 square feet. Separate permits are required for any electrical, plumbing, or mechanical work.

2. Fences.

10. Uncovered Decks which are constructed not more than 30 inches above grade at any point.

11. Replacement of exterior siding, doors, and windows; excluding required egress windows and enlarged openings.

Section R105.3.1.1 Determination of substantially improved or substantially damaged existing buildings in flood hazard areas. Delete this section in its entirety and refer to Title 15 Fairbanks North Star Borough Flood Plain Management Regulations.

Section R106.1.4 Information for construction in flood hazard areas. Delete this section in its entirety and refer to Title 15 Fairbanks North Star Borough Flood Plain Management Regulations.

Section R107.1 General. Revise this section by amending the second sentence to read as follows:

Such permits shall be limited as to time of service but shall not be permitted for more than 360 (three hundred and sixty) days.

Section R108 Fees. Delete this section in its entirety and replace with the 1997 Uniform Administrative Code.

Section R109 Inspections. Delete this section in its entirety and replace with the 1997 Uniform Administrative Code.

Chapter 2 Definitions

Amend section R202 Definitions by adding the following definition:

Duplex Dwelling: Buildings which contain not more than 2 (two) dwelling units which are not otherwise distinguished or separated by a recorded lot line.

Amend Section R202 Definitions Townhouse by the deleting the definition and replace as follows:

Townhouse: A single-family dwelling unit constructed in a group of 2 (two) or more attached units in which each unit extends from foundation to roof and with a yard or public way on at least two sides. Each townhouse shall be considered a separate building as recognized by a recorded lot line between such units. Each townhouse unit shall be provided with separate water, sewer, heating, fuel gas, and electrical services.

Table R301.2(1) Climatic and Geographic Design Criteria. Amend this table to read as follows:

Table R301.2(1) Climatic and Geographic Design Criteria:

Roof Snow load: .....50 psf
Wind speed: ..... 90 mph
Seismic Design Category:.....D1
Weathering:.....Severe
Frost line depth: ..... 42” below finished grade
Termite:.....None to slight
Decay: .....None to slight
Winter Design Temp.....- 47°
Flood Hazards:..... Refer to Fairbanks North Star Borough Title 15

Section R301.2.2.1.1 Alternate determination of seismic design category.
Add the following sentence to the end of the paragraph to read as follows:

The seismic design category for the City of North Pole shall be D1.

Section R301.2.4 Floodplain Construction. Delete this section in its entirety.

Table R301.5 Minimum Uniformly Distributed Live Loads. Amend this table by deleting the live load value of 30 (thirty) psf live load for sleeping rooms and replace with 40 (forty) psf.

Section R302.2.2 Common walls. Revise Items 1 and 2 to read as follows:

1. Where an approved fire sprinkler system is provided, the common wall shall be not less than a 1 (one) hour fire-resistance-rated wall assembly tested in accordance with ASTM E119, UL 263, or Section 703.3 of the International Building Code.

2. Where an approved fire sprinkler system is not provided, the common wall shall be not less than a 2 (two) hour fire-resistance-rated wall assembly tested in accordance with ASTM E119, UL 263, or Section 703.3 of the International Building Code.

Section R302.3 Two – family dwellings. Revise the last of exception #2 to read as follows:

The structural framing supporting the ceiling shall be protected by not less than 5/8 (five eighths) inch thick type X gypsum board or equivalent.

Section R302.5.1 Opening protection. Add the following sentences to this section:

Doors between the garage and residence shall be self-closing and latching. Doors shall be equipped with tight fitting smoke gasket seals installed along the top and sides of doors. A tight-fitting threshold seal shall also be installed.

Table R302.6 Dwelling/Garage Separation. Amend this table as follows:

Revise all references in the table to ½ (one half) inch gypsum board and replace with 5/8 (five eighths) inch thick type X gypsum board.

Revise line two of the Material column to read as follows:

Not less than 1 (one) layer 5/8 (five eighths) inch Type X gypsum board for nominal dimensional lumber or two layers of gypsum board as required by ICC report ESR 1336 or as required by other proprietary research reports for specific engineered I Joists which achieve a one hour rated assembly.

Section R303.1 Habitable Rooms (Light and Ventilation). Replace this section and the exceptions with the following:

All habitable rooms shall be provided with natural light by means of exterior glazed openings with an area of not less than 5 (five) percent of the floor area of such rooms with a minimum area of 5 square feet, except that minimum egress requirements shall govern. Natural ventilation shall be provided by openings to the exterior of not less than 4 percent of the floor area of habitable

rooms. Such openings shall be openable and readily controllable by the building occupants. In lieu of required exterior openings for natural ventilation, a mechanical ventilating system may be provided. Such system shall be capable of providing air changes in accordance with the 2018 IECC as adopted and amended.

Section R303.3 Bathrooms. Delete this section in its entirety, rename and replace with the following:

Section R303.3 Bathrooms and Kitchens. Bathrooms, water closet compartments, and similar rooms shall have a mechanical ventilating system connected directly to the outside capable of providing five air changes per hour. Moisture exhaust ducts shall be smooth and rigid. All moisture exhaust ducts located in an unconditioned space shall be insulated with a minimum R-11 and installed so as not to create low points where condensation may collect. All exhaust ducts shall be equipped with a back-draft damper.

Kitchens shall have mechanical exhaust ventilation provided directly above or immediately adjacent to the primary cooking appliance. All vents shall be connected directly to the exterior. A total exhaust ventilation rate for the structure shall be a minimum of 80 (eighty) cfm per 1000 (one thousand) square feet of habitable floor space. All exhaust ducts shall be equipped with a back draft damper.

Structures of unusually tight construction containing fuel-burning appliances, including fireplaces and mechanically exhausted range-top cooking appliances shall be provided with supplemental supply air in accordance with the Mechanical Code. A draft activated damper allowing air to flow into the structure when depressurization exceeds 10 pascals may be installed within a supply air duct.

Section R309.3 Flood hazard areas. Delete this section and refer to Title 15 Fairbanks North Star Borough Flood Management Regulations

Section R310.1 Emergency escape and rescue opening required. Delete Exception 2 in its entirety.

Section R310.2.1 Minimum opening area. Delete the exception.

Section R313 Automatic Fire Sprinkler Systems. Delete this section in its entirety.

Section R318 Protection against subterranean termites. Delete this section in its entirety.

Section R322. Flood – Resistant Construction. Delete this section in its entirety and refer to Title 15 Fairbanks North Star Borough Flood Plain Management Regulations

Section R323 Storm Shelters. Delete this section in its entirety.

Section R328 Moisture Vapor Retarders. Create a new section and title to read as follows:

Section R328.1 Moisture control.

The building design shall not create conditions of accelerated deterioration from moisture condensation. All exterior wall, ceiling, roof, and floor assemblies which enclose heated spaces and which are exposed to outdoor ambient temperatures shall be protected against water vapor transmission. Assemblies not otherwise of impermeable construction shall have installed, on the heated side of the insulation or air spaces, vapor retarders having a perm rating of 0.06 (six one hundredths) minimum (equivalent to 6 mils polyethylene sheeting) or other material approved by the Building Official. All seams shall be lapped a minimum of one stud or joist bay or sealed with an approved tape or sealant. All voids between joists and studs shall be insulated and sealed in an approved manner.

Exceptions

1. In construction where moisture or its freezing will not damage materials.
2. A maximum of 1/3 (one-third) of the total installed insulation may be installed on the warm side of approved vapor retarders.

Section R327~~8~~.2 Crawl space moisture protection. Create a new sub section and title to read as follows:

Crawl space moisture protection.

Exposed earth in crawl space foundations shall be covered with a continuous vapor retarder. All joints of the vapor retarder shall be overlapped by 6 (six) inches or shall be sealed or taped in approved manner. The edges of the vapor retarder shall extend to the concrete footing and be secured in an approved manner.

Section R401.3 Drainage. Delete the section and the exception and replace with the following:

Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection so as to not create a hazard. Lots shall be graded to drain surface water away from foundation walls. The grade shall be sloped a minimum of 2 (two) percent within the first 10

(ten) feet. It shall be the responsibility of the owner or contractor to assure that discharge of roof and surface runoff is disposed of without affecting the adjacent property. Surface drainage across lot lines is prohibited.

Section R403.1 General. Delete the reference to “wood foundations” in the first sentence and add the following sentence to the end of the section to read as follows:

Wood footings shall be designed and stamped by a registered engineer licensed in the State of Alaska.

Section R 403.1.1 Minimum size. Delete this section in its entirety and replace as follows:

The footing width shall be based on the load-bearing value of the soil in accordance with Table R401.4.1. All footing and foundation systems shall comply with standard foundations details (SFD1-SFD9). In no case shall the minimum size for concrete and masonry footings be less than 1 (one) foot, 4 (four) inches. The size of footings supporting piers and columns shall be based on the tributary load and allowable soil pressure in accordance with table R401.4.1.

Table R403.1 Minimum width of concrete or masonry footings. Delete the table in its entirety and reference standard foundation details (SFD1-SFD9).

Section R403.1.2 Continuous footing in Seismic Design Categories D_0, D_1, and D_2 Delete this section in its entirety and replace as follows:

Seismic reinforcing shall be provided in accordance with standard foundation details SFD1 through SFD9 unless reinforcing is specifically designed by a registered engineer licensed by the State of Alaska. Bottom reinforcement shall be located a minimum of 3 inches clear from the bottom of the footing.

Section R403.1.3 Footing and Stem wall reinforcing in Seismic Design Categories D_0, D_1, and D_2 Delete this section in its entirety and replace as follows:

Foundations with stem walls shall have installed a minimum of two #4 bars within 6 inches of the top of the wall and one #4 bar located 3 (inches) inches to 4 (four) inches above the top of the footing unless otherwise noted on SFD. All reinforcing steel shall comply with standard foundation details SFD1, 2, 4, 5, 7, 8 unless specifically designed and stamped by a registered engineer licensed by the State of Alaska.

Section R403.1.3.3 Slabs-on-ground with turned-down footings. Delete this section and the exception in its entirety and replace as follows:

Slabs-on-ground with turned-down footings shall be designed in accordance with standard foundation detail SFD #9 or stamped by a registered engineer licensed by the State of Alaska. Insulation for such slabs and footings shall be in accordance with section 403.3, figure 403.3(1), and table R403.3(1).

Section R403.1.4 Minimum depth. Delete this section in its entirety and replace as follows:

All exterior footings shall be placed at least 42 (forty-two) inches below finished grade unless the foundation system is designed by a registered engineer licensed by the State of Alaska. Where applicable the depth of footings shall also conform to sections R403.1.4.1 through R403.1.4.2.

Exception

1. Non habitable detached single story accessory structures less than 480 (four hundred eighty) square feet.

Section R403.1.4.1 Frost protection. Amend this section by deleting the exceptions and replace as follows:

Exceptions

1. Protection of non-habitable freestanding accessory single story structures with an area of 480 (four hundred eighty) square feet or less shall not be required.
2. Decks not covered with a roof and decks which are not more than 30 (thirty) inches above grade at any point need not be provided with footings that extend below the frost line.

Section R403.2 Footings for wood foundations. Delete this section in its entirety including references to figures R403.1(2) and R403.1(3) and replace as follows:

Wood foundations shall comply with standard foundation details SFD3 and SFD6 or the wood foundation system shall be specifically designed and stamped by a registered engineer licensed by the State of Alaska**.**

Section R403.3 Frost protected shallow foundations. Delete the first sentence and replace with the following:

Frost protected shallow foundations shall be designed in accordance with standard foundation detail SFD9 or stamped by a registered engineer licensed in the State of Alaska. The design must

be in constructed in accordance with Sections R403.3.1 thru R403.3.3, including Figures R403.3(1), R403.3(3), or R403.3(4) and Table R403.3 (1).

Section R403.3.3 Drainage. Delete this section in its entirety and replace with the following:

Final site drainage shall be in accordance with Section R401.3

Section R403.3.4 Termite damage. Delete this section in its entirety.

Section R403.4.1 Crushed stone footings. Delete this section in its entirety.

Table R403.4 Minimum Depth of Crushed Stone footings. Delete this table in its entirety.

Section R404.1.2 Design of Masonry foundation walls. Delete this section in its entirety and all references to tables R404.1.1(1), R404.1.1(2), R404.1.1(3), R404.1.1(4) and replace as follows:

The minimum design for masonry foundation walls shall comply with The City of North Pole Standard Foundation Details (SFD) #1, #4 or #7 unless an alternate foundation design has been prepared and stamped by a registered engineer licensed by the State of Alaska.

Section R404.1.3 Concrete foundation walls. Add the following sentence to the end of the paragraph.

The minimum design for concrete foundation walls shall comply with The City of North Pole Standard Foundation Details (SFD) #2, #5 or #8 unless an alternate foundation design has been prepared and stamped by a registered engineer licensed by the State of Alaska.

Table R404.1.2(1). Delete the table in its entirety and replace as follows:

Two horizontal #4 bars are required to be installed within the top 6 (six) inches of the wall and one #4 bar shall be provided near mid-height of the wall story where the maximum unsupported height of the basement wall is greater than 4 feet and less than or equal to 8 (eight) feet. When the maximum unsupported height of the basement wall is greater than 8 (eight) feet the required reinforcing shall be installed in accordance with a design provided by a registered engineer licensed by the State of Alaska.

Table R404.1.2(2). Delete this table in its entirety and replace as follows:

Minimum vertical reinforcement shall be installed in accordance with Standard foundation Details SFD1, 2, 4, 5, 7, 8 or shall be installed in accordance with a design provided by a registered engineer licensed by the State of Alaska.

Table R404.1.2(3). Delete this table in its entirety and replace as follows:

Minimum vertical reinforcement shall be installed in accordance with Standard foundation Details SFD1, 2, 4, 5, 7, 8 or shall be installed in accordance with a design provided by a registered engineer licensed by the State of Alaska.

Table R404.1.2(4). Delete this table in its entirety and replace as follows:

Minimum vertical reinforcement shall be installed in accordance with Standard foundation Details SFD1, 2, 4, 5, 7, 8 or shall be installed in accordance with a design provided by a registered engineer licensed by the State of Alaska.

Table R404.1.2(5). Delete this table in its entirety and replace as follows:

Vertical wall reinforcement shall be installed in accordance with the manufacturer's installation instructions or a design provided by a registered engineer licensed by the State of Alaska.

Table R404.1.2(6). Delete this table in its entirety and replace as follows:

Minimum vertical reinforcement shall be installed in accordance with the manufacturer's installation instructions or shall be installed in accordance with a design provided by a registered engineer licensed by the State of Alaska.

Table R404.1.2(7). Delete this table in its entirety

Table R404.1.2(8). Delete this table in its entirety and replace as follows:

Minimum vertical reinforcement shall be installed in accordance with Standard foundation Details SFD1, 2, 4, 5, 7, 8 or shall be installed in accordance with a design provided by a registered engineer licensed by the State of Alaska.

Section R404.1.3.2 Reinforcement for foundation walls. Delete this section in its entirety and replace as follows:

Concrete foundation walls shall be laterally supported at the top and bottom. Horizontal reinforcement shall be provided in accordance with table R404.1.2(1) as amended. Vertical

reinforcement shall be provided in accordance with Standard foundation Details SFD1, 2, 4, 5, 7, 8. In buildings assigned to Seismic Design Category D1, concrete foundation walls shall also comply with Section R404.1.4.2.

Section R404.1.4.1 Masonry foundation walls. Delete this section in its entirety and replace as follows:

Foundation walls in buildings assigned to seismic Design Category D1 as established in Table R301.2(1), supporting more than 4 feet of unbalanced backfill or exceeding 8 (eight) feet in height shall be constructed in accordance with SFD 1, 2, 4, 5, 7, 8 or a design shall be provided by a registered engineer licensed by the State of Alaska. Masonry foundation walls shall have 2 (two) horizontal #4 bars located in the upper 6 (six) inches of the wall.

Section R404.1.4.2 Concrete foundation walls. Delete this section in its entirety and replace as follows:

In buildings assigned to Seismic Design Category D1 as established in table R301.2(1), concrete foundation walls that support light–frame walls shall comply with this section and concrete foundation walls that support above-grade concrete walls shall comply with ACI 318, ACI 332 or PCA 100 (see section R404.1.2). In addition to the horizontal reinforcement by table R404.1.2(1) as amended concrete foundation walls shall comply with standard foundation details SFD1, 2, 4, 5, 7, 8.

Section R404.2 Wood foundations. Delete this section in its entirety and replace as follows:

Wood foundation walls shall be constructed in accordance with the provisions of sections R404.2.1 through R404.2.6 and standard foundation details SFD 3 & 6 as adopted by the City of North Pole. An alternate design may be submitted for review and approval if the design is prepared and stamped by a registered engineer licensed by the State of Alaska.

Section R404.2.5 Drainage and Dampproofing. Delete this section in its entirety and replace as follows:

Wood foundation basements shall be drained and dampproofed in accordance with Standard Foundation Details SFD3 and SFD6.

Section R405.1 Concrete or masonry foundations. Delete this section in its entirety and replace as follows:

Concrete and masonry foundations shall be installed in compliance with Standard foundation details SFD1, 2, 4, 5, 7, 8. A drainage system is not required when the foundation is installed on well-drained ground or sand gravel mixture soils according to the Unified Soil Classification System, Group I soil, as detailed in Table R405.1.

Section R405.2 Wood foundations. Delete this section in its entirety and replace as follows:

Wood foundations shall comply with Standard foundation details SFD 3 & 6.

Section R405.2.1 Base. Delete this section in its entirety.

Section R405.2.3 Drainage system. Delete this section in its entirety.

Section R406.1 Concrete and Masonry Foundation Dampproofing. Amend this section by revising the first sentence to read as follows:

Except where required by section R406.2 to be water proofed, foundation walls that retain earth and enclose interior spaces and floors below grade shall be dampproofed from the top of the footing to 6 inches above finished grade.

Section R406.1. Amend this section by adding exception #2 to read as follows:

2. Crawl space foundation walls or walls backfilled on both sides, such as those used in conjunction with a “slab on grade”, do not require damp-proofing.

Section R406.3 Dampproofing for wood foundations. Amend this section by adding the following sentence to the end of the paragraph.

Foundation foundations shall comply with Standard foundation details SFD 3 & 6.

Section R406.3.2 Below-grade moisture barrier. Delete the first sentence and replace with the following:

A double layer of 6 (six) mil polyethylene film shall be applied over the below-grade portion of the exterior foundation walls prior to backfilling. A single layer of self-adhering polymer modified bitumen sheet material may be used in lieu of the polyethylene film**.**

Section R406.3.2 Below- grade moisture barrier. Delete the last sentence of the paragraph and replace with the following:

The moisture barrier shall overlap onto the footing.

Section R408.1 Ventilation. Delete this section in its entirety and replace with the following:

Each under-floor space shall be ventilated by an approved mechanical means or by openings in exterior foundation walls. Such openings shall have a net area of not less than 0.1 (one tenth) square foot for each 150 (one hundred fifty) square feet of under-floor area. There shall be two openings located as close to corners as practical on opposite sides to provide cross ventilation. The openings shall be covered with corrosion resistant wire mesh approximately ¼ (one quarter) inch in size. All structures with a crawl space shall have a minimum 6 mil ground vapor retarder to prevent the flow of water vapor from soils into the heated building interior.

Section R502.1.1 Sawn Lumber. Add the following exception:

Exception

Rough sawn, ungraded, dimensional lumber may be used for framing materials in floors, walls and roofs of detached garages, utility buildings and other unheated accessory building and other applications where approved by the Building Official.

Section R601.3 Vapor retarders. Add new section

Continuous vapor retarders are required to be installed on the exterior envelope. The vapor retarder shall be installed such that not less than 2/3 of the total wall R-value is placed on the cold side of the vapor retarder.

Exception: Construction where moisture or its freezing will not damage the materials.

Section R602.11.1 Wall anchorage. In the second sentence, replace “3 inch by 3 inch” with the following:

“2 (two) inch by 2 (two) inch”

Section R703.2 Water-resistive barrier. Delete this section in its entirety**.**

Section R802.10.2 Design. Add the following sentence to end of paragraph:

A 15 (fifteen) percent load duration increase shall not be utilized for wood trusses where the live load considered is snow.

Section 806.2 Minimum area. Amend this section by deleting the exception and replace as follows:

As an alternative, the net free cross-ventilation area may be reduced to 1/300 (one three hundredths) when a class I vapor barrier is installed on the warm–in-winter side of the ceiling.

Section 806.5 Unvented attic and unvented enclosed rafter assemblies. Delete this section in its entirety.

Section R807.1 Attic access. Add the following sentence to the end of the 2nd paragraph:

Attic access shall not be located in a room containing bathing facilities. Access may be located in closets with minimum depth of 23 (twenty three) inches and minimum width of 48 (forty eight) inches.

Exception

Attic access may be provided from the exterior gable vent in accordance with size and opening requirements of this section. The gable vent must be readily accessible.

Section R903.1 General. Add the following sentence to the end of section:

1. All valleys shall have a modified bitumen ice barrier lapped eighteen inches minimum each side of valley centerline. No penetrations shall be located in required valley ice barrier.

Section R903.4 Roof drainage. Add the following to the end of the paragraph:

Roof drainage shall be diverted to a storm sewer conveyance or other approved point of collection so as to not create a hazard. Lots shall be graded to drain surface water away from foundation walls. The grade shall be sloped a minimum of 2 (two) percent within the first 10 (ten) feet. It shall be the responsibility of the owner or contractor to assure that discharge of roof and surface runoff is disposed of without affecting the adjacent property. Water drainage which migrates across property lines is strictly prohibited.

Table 905.1.1(2) Underlayment Application. Amend the Asphalt shingles section by deleting the first sentence up to the ":" and replace as follows:

A roof slope of 2:12 shall be provided with an approved self-adhering polymer modified bitumen on the entire roof surface. A roof slope of 3:12 shall be provided with double underlayment in the following manner.

Section R905.1.2 Ice Barriers. Delete this section in its entirety and replace with the following:

Where a non-energy heel truss design is utilized, an approved self-adhering polymer modified bitumen sheet shall be installed on the roof deck extending from the eave up the roof to 36 (thirty-six) inches inside the exterior wall line of the building.

Exception:

Detached accessory structures that contain no conditioned floor area.

Section R905.2.2 Slope. Delete the section and replace with the following:

Asphalt shingles shall be used only on roof slopes of two units vertical in 12 (twelve) units horizontal or greater. Required underlayment shall be provided as follows: A roof slope of 2:12 shall be provided with an approved self-adhering polymer modified bitumen on the entire roof surface. A roof slope of 3:12 shall be provided with double underlayment in accordance with section R905.2.7. Roof slopes of 4:12 or greater shall be provided with a single layer of underlayment in accordance with section R905.2.7.

Section R905.2.5 Fasteners. Add an exception to read as follows:

Staples may be substituted for nails on new work only. They must be galvanized or stainless steel with a 1 (one) inch crown and of sufficient length to completely penetrate the shingle and the roof sheathing. Staples must be straight and flush with the shingle surface.

Section R905.14 Sprayed polyurethane foam roofing. Delete this section in its entirety.

Chapter 11 Energy Efficiency. Delete this chapter in its entirety and reference the International Energy Conservation Code as currently adopted and amended.

MECHANICAL

Chapters 12-23. Delete these chapters and reference the Mechanical Code as currently adopted and amended by the City of North Pole.

FUEL GAS

Chapter 24. Delete this chapter and reference the Fuel Gas Code as currently adopted and amended by the City of North Pole.

PLUMBING

Chapters 25-~~31~~33. Delete these chapters and reference the Plumbing Code as currently adopted and amended by the City of North Pole.

APPENDICES

Appendix K Sound Transmission. Adopt Appendix K Sound Transmission and revise section AK 102 AIR-BORNE Sound and section AK 103 Structural-Borne Sound to read as follows:

Section AK 102 AIRBORNE SOUND

Airborne sound insulation for a wall and floor-ceiling assemblies shall meet a Sound Transmission Class (STC) rating of 50 (fifty) when tested in accordance with ASTM E90. Penetrations or openings in construction assemblies for piping, electrical devices, recessed cabinets, bathtubs soffits or heating ventilating or exhaust ducts shall be sealed, lined, insulated, or otherwise treated to maintain the required ratings. Dwelling unit entrance doors, which a share a common space shall be tight fitting to the frame and sill and shall be provided with gasket seals at the top and sides of such doors.

Section AK 103 Structural–Borne Sound

Floor/ceiling assemblies between a dwelling unit and public space or service area within the structure shall have an impact insulation class (IIC) rating of not less than 50 (fifty) when tested in accordance with ASTM E 492.

Chapter 15.28 Mechanical Code

15.28.010 Adoption.

The code known as the International Mechanical Code, 2015 **2018** Edition, as published by the International Conference of Building Officials, together with the local amendments as set forth in NPMC 15.28.040, shall constitute the laws of the City relating to building regulations. Where the International Mechanical Code conflicts with this code, this code shall prevail. An electronic copy of the International Mechanical Code is retained at the City offices. (Ord. 17-12 § 2(C), 2017; Ord. 12-09 § 2, 2012)

15.28.020 Modifications.

The Building Official shall have the power to modify any of the provisions of the International Mechanical Code adopted by this chapter upon application in writing by the owner or lessee or his duly authorized agent, when there are practical difficulties in the way of carrying out the strict letter of the code; provided, that the spirit of the code is observed, public safety secured, and substantial justice done. The particulars of the modification, when granted or allowed, and the decision of the Building Official thereon shall be entered upon the records of the Department, and a signed copy shall be furnished the applicant. (Ord. 17-12 § 2(C), 2017; Ord. 12-09 § 2, 2012)

15.28.030 Appeals.

Whenever the Building Official disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of the code have been misconstrued or wrongly interpreted, the applicant may appeal from the decisions of the Building Official to the Mayor/City Manager within thirty days from the date of the decision. The appointment of the appeals board will be on a case-by-case basis with the members of said board comprised of local design professionals, contractors, inspectors or other members of the public deemed knowledgeable of the subject matter by the Mayor/City Manager. (Ord. 17-12 § 2(C), 2017; Ord. 12-09 § 2, 2012)

15.28.040 Local amendments to the International Mechanical Code, ~~2015~~ 2018 Edition.

The amendments to the International Mechanical Code, ~~2015~~ **2018** Edition, as published by the International Conference of Building Officials, are hereby adopted by the City of North Pole as follows:

The International Mechanical Code, 2018 Edition, is hereby amended as follows**:**

Section 101.2.1 Appendices. Add the following to this section.

Appendix A as amended by the combustion air provisions of chapter 7 is hereby adopted.

Except for sections 101, 102, and the following amendments, delete Chapter 1 in its entirety and refer to the City of North Pole Administrative Code.

Section 102.8 Referenced codes and standards. Revise and add four subsections at the end of this section as follows:

102.8.3 Plumbing. Where reference to any Plumbing Code is made in this Code it means the *Uniform Plumbing Code* as adopted and amended by the City of North Pole.

102.8.4 Electrical. Where reference to any Electrical Code is made in this Code it means the *National Electrical Code* as adopted and amended by the City of North Pole.

102.8.5 Administrative. The provisions of the 1997 Uniform Administrative Code apply to the administration and enforcement of this code. Where provisions of the Administrative Code and this code conflict, the more restrictive text shall apply.

102.8.6 Energy. Where reference is made in this Code to the *International Energy Conservation Code* it means the *IECC* as currently adopted by the City of North Pole.

Section 201.3 Terms defined in other codes. Revise this section as follows.

Where terms are not defined in this code and are defined in the *International Building Code, National Electrical Code, International Fire Code, International Fuel Gas Code,* or *Uniform Plumbing Code,* such terms shall have meanings ascribed to them in those codes.

Section 201.4 Terms not n o t defined. Amend this section by adding the following sentence.

Webster's Third New International Dictionary of the English Language, Unabridged shall be considered as providing ordinarily accepted meanings.

Section 301.2 Energy utilization. Delete this section in its entirety.

Section 301.10 Electrical. Add the following sentence to the end of this subsection.

When an existing fuel-fired appliance is not equipped with the required manual disconnect and the appliance is replaced, an approved manual disconnect within clear view of the appliance shall be installed.

Section 301.19 Carbon Monoxide Alarm. Add this section numbering, title, and the following after section 301.18.

Where a fuel-fired appliance is installed or replaced in an existing dwelling an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms. A single station, battery-operated carbon monoxide alarm shall be listed as complying with UL 2034 and shall be installed according to the manufacturer's installation instructions.

Section 302.1.1 Pipe and Tubing embedded in concrete. Add this subsection with the following text.

Pipe and tubing embedded in concrete slabs or footings, including sleeves, shall not be placed at a depth below the top surface of the concrete of less than 1½ (one and one half) inch for concrete exposed to earth or weather or ¾ (three quarter) inch for concrete not exposed to earth or weather. They shall not be spaced closer than 3 (three) diameters or widths from structural steel elements.

Section 302.6 Penetration Weatherproofing. Add this section and the following after section 302.5.3.

Joints at roofs and exterior walls around pipes, ducts, appurtenances, or equipment shall be made watertight by the use of approved materials.

Section 303.4 Protection from damage. Add the following at the end of Section 303.4.

Fuel-fired equipment and appliances located within the direct perpendicular path of a garage door opening of eight foot or less in height shall comply with Section 303.4.1

303.4.1 Fuel-fired appliance protection. Fuel fired appliances and equipment located in the direct path of vehicles as described in 303.4 shall be protected from impact with one of the following methods.

1. A minimum schedule 40 (forty) nominal 3 (three) inch diameter steel pipe 30 (thirty) inches high, with a vertical face of the pipe at least 6 (six) inches in the direction of vehicle approach and:

1.1 Buried a minimum 2 (two) feet deep in compacted soil and imbedded in at least 4 (four) inches nominal concrete slab, or

1.2 Set in a minimum one foot by one foot by one foot block of concrete (slab included).

2. A platform on which the equipment sits, at least 24 (twenty four) inches high, extended at least 6 (six) inches greater than the equipment footprint (including attachments such as burners and controls) in the direction of vehicle approach and in contact with the structure opposite the direction of vehicle approach.
3. An approved system of equivalent resistance to vehicle impact extending at least 6 (six) inches ahead of the equipment's footprint in the direction of vehicle approach, including attachments such as burners and controls.

Section 303.8 Elevator Shafts. Delete this section in its entirety and replace as follows.

Mechanical systems shall not be located in an elevator shaft except mechanical equipment and devices exclusively serving the elevator. Discharge piping from any sump pump shall exit the hoist way as low as practicable. Sump pumps shall be sized per the Uniform Plumbing Code as amended.

Section 304.1.1 Fuel-fired equipment startup report. Add this subsection as follows.

A startup report is required for all fan-assisted or power-burner fuel-fired equipment indicating the following conditions and others which the manufacturer recommends in their installation instructions. A non-returnable copy must be provided to the inspector for insertion in the Building Department project files.

1. Company, Name, address, & Phone Number of Startup Technician Manufacturer and Model No. of Equipment
2. Date and Time of Startup and Noted Readings Net Stack Temperature
3. Over fire Draft
4. Breech Draft Stack Draft CO or Smoke CO2 or O2
5. Actual Rate of fuel input

Section 312.1 Load calculations. Delete the last sentence of this section and substitute the following.

Alternatively, design loads shall be determined by an approved equivalent computation procedure.

Section 401.4 Intake Openings. Add the following exception.

Exception

Passive Outdoor Air intake openings, including opening doors and windows, shall not be located closer than 3 (three) feet horizontally to any gas pressure regulator vent opening, unless such vent opening is located at least 3 (three) feet above the air intake opening.

Section 401.5 Intake opening protection. Add an exception at the end of this section as follows:

Exception: HRV weather hoods as provided by the respective unit's manufacturer may be used for its Intake and Exhaust Air openings.

TABLE 401.5 OPENING SIZES IN LOUVERS, GRILLES AND SCREENS PROTECTING OUTDOOR EXHAUST AND AIR INTAKE OPENINGS

Delete Table 401.5 and replace with the following.

OUTDOOR OPENING TYPE	MINIMUM AND MAXIMUM OPENING SIZES IN LOUVERS, GRILLES AND SCREENS MEASURED IN ANY DIRECTION
Exhaust & Intake openings in residential occupancies	½ (one half) inch
Intake openings in other than residential occupancies	Not < ½ (one half) inch and not > 1 (one) inch

Section 403.3.1.1 Outdoor airflow rate. Amend this section by revising the first sentence to read as follows.

Ventilation systems shall be designed to have the capacity to supply the minimum outdoor airflow rate determined in accordance with Table 403.3.1.1 based on the occupancy of the spaces and the occupant load or in accordance with the latest edition of ASHRAE Standard 62

Section 501.3 Exhaust discharge. Delete the exceptions to this section.

Section 502.21. Manicure and Pedicure Stations Add this section.

The permit holder shall verify capture and containment performance of the exhaust system. This field test shall be conducted with all sources of outdoor air providing makeup air operating and with all sources of recirculated air operating which provide conditioning for the

space in which the capture & containment is required. Capture and containment shall be verified visually by observing smoke simulating contaminant emission.

Section 505.2 Domestic cooking exhaust. Delete the first paragraph of this section and substitute the following.

Built-in Cook-top or Range-top domestic cooking appliances located within dwelling units and within areas where domestic cooking appliance operations occur shall be listed and labeled as household-type appliances for domestic use. A ventilating hood above, or an approved downdraft exhaust, shall be provided for a cook-top or range-top domestic cooking appliance, and shall discharge to the outdoors through a single-wall duct. The duct shall be sheet metal, of galvanized steel, stainless steel, aluminum or copper, airtight, and equipped with a backdraft damper. A microwave or cooking appliance that exhausts to the outdoors according to this section, is listed and labeled for installation over a cooking appliance and conforms to the terms of the upper appliance's listing and label, shall be approved.

Section 505.3 Exhaust ducts. Delete exception #1.

Section 506.3.11 Grease duct enclosure. Add the following sentence at the end of this section's paragraph.

Duct enclosures penetrating wall assemblies shall have a fire-resistance rating of not less than that required for the wall assembly, but not less than 1-hour nor more than 2-hour.

506.3.11.1 Shaft enclosure. Delete and replace the second sentence of this subsection with the following.

Such grease duct systems and exhaust equipment shall have a clearance to combustible construction of not less than 18 inches and shall have a clearance to noncombustible construction and gypsum wallboard attached to noncombustible structures of not less than 3 inches.

Section 507.1 General. Amend this section by adding the following sentence.

Design documents for commercial hoods, commercial ventilation, and makeup air systems shall be designed by and bear the stamp of a professional mechanical engineer currently registered in the State of Alaska.

Section 508.1 Makeup air. Amend this section by adding the following sentence.

Design documents for commercial hoods, commercial ventilation, and makeup air systems shall be designed by and bear the stamp of a professional mechanical engineer currently registered in the State of Alaska.

Section 601.4 Contamination prevention. Amend this section numbering the published Exception as noted and adding Exception 3 as follows.

Exception 1. Exhaust systems Exception 3.
Environmental air exhaust ducts under positive pressure may extend into or through ducts or plenums if one of the following design approaches is used.

1. Route environmental air exhaust ducts inside a shaft when passing through a duct or plenum. Install a second duct around the environmental air exhaust duct where passing through ducts and plenums to minimize leakage to the duct plenums. Seal both ends of the outer duct to the outside.
2. Install a second duct around the environmental air exhaust duct where passing through ducts and plenums to minimize leakage to the duct or plenum. Seal both ends of the outer duct to outside.
3. Seal the environmental air exhaust ducts along all seams and joints using a listed low to medium pressure duct sealant which is typically applied by brush, trowel, or caulking gun.
4. Provide flexible duct with no seams in the duct or plenum. The maximum length of the flexible duct is limited to 8 feet due to high static loss. A metal duct may be sleeved by the flexible seamless duct.

Section 602.1 General. Revise this section as follows.
Supply, return, exhaust, relief, and ventilation air plenums shall be limited to areas above a ceiling or below the floor, attic spaces, and mechanical equipment rooms. Plenums shall be limited to one fire area. Fuel-fired appliances shall not be installed within a plenum.

Exception

Underfloor crawlspaces shall not be used as plenums.

Section 604.1 General. Revise this section as follows.

Duct insulation shall conform to the requirements of sections 604.2 through 604.13.and the *International Energy Conservation Code*. All supply, return, and exhaust ducts and plenums shall be insulated with a minimum of R-11 insulation when located outside the building envelope. When located within a building envelope assembly, the duct or plenum shall be

separated from the building exterior or unconditioned space or exempt spaces by a minimum of R-11 insulation.

Exceptions

1. When located within equipment.
2. When the design temperature difference between the interior and exterior of the duct or plenum does not exceed 15 (fifteen) degrees F 8 (eight) degrees C.
3. When located within the under-floor crawlspace of a one- or two-family dwelling unit.

Section 607.4 Access and identification. Add the following between the 1st and 2nd sentences of this Section.

Access doors for fire dampers & smoke dampers shall be located as close as practicable to the dampers and also sized so fire damper spring catch and fusible links are accessible with two hands when the damper is closed. Duct access doors shall be a minimum size of 18 (eighteen) inches by 16 (sixteen) inches where the size of the duct permits, and a minimum size of 24 (twenty-four) inches and 16 (sixteen) inches where entry of an individual is needed for the required minimum access.

CHAPTER 7 COMBUSTION AIR

Section 701.1 Scope. Delete this section in its entirety and substitute the following.

The provisions of this chapter shall govern the requirements for combustion and dilution air for fuel-burning appliances other than gas-fired appliances. Solid fuel- burning appliances shall be provided with combustion air in accordance with the appliance manufacturers' instructions. Oil-fired appliances shall be provided with combustion air in accordance with this chapter and, where not modified by this chapter, with Chapter 5 of NFPA 31. The methods of providing combustion air in this chapter do not apply to fireplaces and fireplace stoves.

Add the following after Section 701.1

701.1.1Combustion and dilution air required. Every room or space containing fuel-burning appliances shall be provided with combustion air, including both air for complete fuel combustion and draft dilution, as required by this code. An approved engineered system may be used to provide combustion air as an alternative to the requirements of this chapter. An approved method shall be utilized to control the temperature of the room or space containing fuel-burning appliances. The room or space shall be maintained between 40 (forty) degrees F and 120 (one hundred) degrees F. The requirements for Combustion

Air in this chapter do not include what might be needed for maintaining the ambient temperature of the room or space containing the fuel-burning equipment. Exhaust fans that create a negative draft in the room or space, or other fans that might create conditions of unsatisfactory combustion or venting, are not permitted unless electrically interlocked with the fuel-burning appliances to prevent simultaneous operation.

701.1.2 Prohibited sources. Combustion air shall not be obtained from a hazardous location, except where the fuel-fired appliances are located within the hazardous location and are installed in accordance with this code. Combustion air shall not be taken from a refrigeration machinery room, except where a refrigerant vapor detector system is installed to automatically shut off the combustion process in the event of refrigerant leakage. Combustion air shall not be obtained from any location below the design flood elevation, a crawlspace, or an attic.

701.3 Outdoor openings. Combustion air outdoor openings shall be located and protected according to Sections 401.4 and 401.5, as amended and located at least 18 inches above grade.

702.0 Outdoor Air

702.1 Outdoor Air is required provided for combustion air. Combustion air as required by this chapter shall not be supplied by infiltration.

702.2 Indirect-Connection, Passive-flow Combustion Air. A minimum of one combustion air opening is required. The opening shall be sized with an effective opening to the outdoors of 1 (one) square inch per 6000 (six thousand) BTU/hour of the combined input rating of the fuel-burning appliances or according to Table 7-1. The opening into the enclosure containing the appliances shall be located no lower in elevation than 2/3 (two thirds) the distance from the top of the finished floor to the bottom of the finished ceiling in the enclosure.

TABLE 7-1 OIL-FIRED APPLIANCE COMBUSTION AIR DUCT SIZING

Appliance Size (Btu/hr. Input)	GPH Input at 140,000 Btu/gallon	Combustion Air Duct Minimum Free Area (sq. in.)	Minimum Round Duct Size (sq. in.)
<120,000	<.85	12	4
120,000 -155,000	.85 – 1.10	19	5
155,000 – 175,000	1.10 – 1.25	28	6

703.3 Indirect-Connection, Forced-flow Combustion Air. Where combustion air is provided by a mechanical forced-air system, it shall be supplied at the minimum rate of 1 (one) cfm per 3500 (three thousand five hundred) BTU/hour of the combined input rating of all the fuel-burning appliances served. Each of the appliances served shall be electrically interlocked to the mechanical forced-air system to prevent operation of the appliances when the mechanical system is not in operation. Where combustion air is provided by the building's mechanical ventilation system, the system shall provide the specified combustion air rate in addition to the required ventilation air.

704.4 Direct-Connection. Fuel-burning appliances that are listed and labeled for direct combustion air connection to the outdoors shall be installed in accordance with the manufacturer's installation instructions.

7-3.0 Combustion Air Ducts.

703.1 General. Indirect-Connection Combustion air ducts shall:

1. Be of galvanized steel complying with Chapter 6 or of equivalent rigid, corrosion-resistant material approved for this application.

2. Have a minimum cross-sectional dimension of 3 (three) inches.

3. Terminate in an unobstructed space allowing free movement of combustion air to the appliances.

4. Have the same cross-sectional areas as the free area of the openings to which they connect. Each combustion air inlet shall only open into the appliance space with one, separate ducted opening of the required free area opening.

5. Serve a single appliance enclosure.

6. Any dampers installed within any part of a combustion air duct or opening shall be electrically interlocked with the firing cycle of the appliance served, to prevent operation of any appliance when the dampers are closed.

Section 801.21 Location and support of venting systems other than masonry chimneys. Add this new section with the following text.

Vent terminations that penetrate a metal roof with a slope greater than 1:12 shall be protected by a snow guard or deflector of a type and design approved by the Code Official.

Section 923.2 Small ceramic kilns-ventilation. Add this new section with the following text.

A canopy-hood shall be installed directly above each kiln. The face opening area of the hood shall be equal to or greater than the top horizontal surface area of the kiln. The hood shall be constructed of not less than No. 24 (twenty four) U.S. gauge galvanized steel or equivalent and be supported at a height of between 12 (twelve) inches and 30 (thirty) inches above the kiln by noncombustible supports.

Exception: Each hood shall be connected to a gravity ventilation duct extending in a vertical direction to outside the building. This duct shall be of the same construction as the hood and shall have a minimum cross-sectional area of not less than one fifteenth of the face opening area of the hood. The duct shall terminate a minimum of 12 (twelve) inches above any portion of a building within 4 (four) feet and terminate no less than 4 (four) feet from the adjacent property line or any open able window or other openings into the building. The duct opening to the outside shall be shielded, without reduction of duct area, to prevent entrance of rain into the duct. The duct shall be supported at each section by noncombustible supports. Provisions shall be made for air to enter the room in which a kiln is installed at a rate at least equal to the air being removed through the kiln hood.

Section 1001.1 Scope. Amend exception #7 as follows.

1. Any boiler or pressure vessel subject to inspection by federal inspectors.

Section 1005.2 Potable water supply. Delete this section and its title in their entirety and substitute the following.

Section 1005.2 Water Supply. An automatic means of water or heat transfer liquid makeup supply is required connected to all boilers. Connections to the potable water piping system shall be in accordance with the *Uniform Plumbing Code* as amended.

Section 1006.6 Safety and relief valve discharge. Delete this section and substitute the following:

Safety and relief valve discharge piping shall be of rigid pipe or tube that is approved for the temperature of the system. High-pressure-steam safety valve shall be vented to the outside of the structure. The discharge piping serving pressure relief valves, temperature

relief valves, and combinations of such valves shall b e separately piped to its outlet according to manufacturer's instructions, in a manner that does not cause personal iinjury or structural damage, and without obstruction or connection to piping serving any other relief device or equipment. The discharge piping s hall be at least the size of the valve outlet served, sloped downward full sized toward its outlet, and terminate through an air gap not more than 18 (eighteen) inches above the floor, or above the flood rim of an approved pan or waste rreceptor. The termination shall be readily observable and located in the same room as the appliance. The discharge piping shall have no tees or outlet threads and as few elbows as possible.

Section 1006.7 Boiler safety devices. Amend this section by adding the following and Table 1003.2.1 of the *2018 Uniform Mechanical Code.*

Automatic boilers shall be equipped with controls and limit devices as set forth in Table 1003.2.1

TABLE 1003.2.1
Controls and Limit Devices for Automatic Boilers

Boiler Group	Fuel	Fuel Input Range (Inclusive), Btu/h	Type of Pilot[2]	Safety Control Timing (Nominal Maximum Time In Seconds)				Assured Fuel Supply Control[4]	Assured Air Supply Control[5]	Low Fire Start Up Control[6]	Pre-purging Control[7]	Hot Water Temperature and Low Water Limit Controls[8]	Steam Pressure and Low Water Limit Controls[9]	Approved Fuel Shutoff[10]	Control and Limit Device System Design[11]
				Trial for Pilot	Trial for Main Burner Flame		Main Burner Flame Failure[3]								
					Direct Electric Ignition	Flame Pilot									
A	Gas	0-400,000	Any type	90	Not Required	90	90	Not required	Required	Not required	Not required	Required	Required	Not required	Required
B	Gas	400,001-2,500,000	Interrupted or intermittent	15	15	15	2-4	Not required	Required	Not required	Not required	Required	Required	Not required	Required
C	Gas	2,500,001-5,000,000	Interrupted or intermittent	15	15	15	2-4	Required	Required	Required	Required	Required	Required	Required	Required
D	Gas	Over 5,000,000	Interrupted	15	15	15	2-4	Required	Required	Required	Required	Required	Required	Required	Required
E	Oil	0-400,000	Any type	Not Required	90	90	90	Not required	Required	Not required	Not required	Required	Required	Not required	Required
F	Oil	400,001-1,000,000	Interrupted	Not Required	30	30	2-4	Required	Required	Not required	Not required	Required	Required	Not required	Required
G	Oil	1,000,001 3,000,000	Interrupted	Not Required	15	15	2-4	Required	Required	Not required	Not required	Required	Required	Not required	Required
H	Oil	Over 3,000,000	Interrupted	15	15	60	2-4	Required	Required	Required	Required	Required	Required	Required	Required
K	Electric	All	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Not required	Required	Required	Not required	Required
L	Gas, Oil and/or Coal	12,500,000 or more	Any	10 sec per NFPA 85	Per NFPA 85	Per NFPA 85	Per NFPA 85	Per NFPA 85	Per NFPA 85	Per NFPA 85	Per NFPA 85	Per ASME Power Boiler Code Section I and NFPA 85	Per ASME Power Boiler Code Section I and NFPA 85	Per NFPA 85	Per NFPA 85
M	Heat Recovery Steam Generator	Any	None	Per NFPA 85	Per NFPA 85	Per NFPA 85	Per NFPA 85	Per NFPA 85	Per NFPA 85	Per NFPA 85	Per NFPA 85	Per ASME Boiler & Pressure Code & NFPA 85	Per ASME Boiler & Pressure Code & NFPA 85	Per NFPA 85	Per NFPA 85

FOOTNOTES FOR TABLE 1003.2.1

1. Fuel input shall be determined by one of the following:

- The burner input shall not exceed the input as shown on the burner nameplate or as otherwise identified by the manufacturer.
- The nominal boiler rating, as determined by the building official, plus 25 (twenty-five) percent.

2. Automatic boilers shall have one flame failure device on each burner, which shall prove the presence of an ignition source at the point where it will reliably ignite the main burner, except that boiler groups A, B, E, F, and G, which are equipped with direct electric ignition, shall monitor the main burner, and boiler groups using interrupted pilots shall monitor the main burner after the prescribed limited trial and ignition periods. Boiler group A, equipped with continuous pilot, shall accomplish 100 (one hundred) percent shutoff within 90 (ninety) seconds upon pilot flame failure. The use of intermittent pilots in boiler group C is limited to approved burner units.

3. In boiler groups B, C, and 0 a 90 (ninety) second main burner flame failure limit shall be permitted to be applied where continuous pilots are provided on manufacturer assembled boiler-burner units that have been approved by an approved testing agency as complying with nationally recognized standards approved by the building official. Boiler groups F and G equipped to re- energize their ignition systems within 0.8 (eight tenths) second after main burner flame failure will be permitted 30 (thirty) seconds for group F or 15 (fifteen) seconds for group G to reestablish their main burner flames.

4. Boiler groups C and D shall have controls interlocked to accomplish a nonrecycling fuel shutoff upon high or low gas pressure, and boiler groups F, G, and H using steam or air for fuel atomization shall have controls interlocked to accomplish a nonrecycling fuel shutoff upon low atomizing steam or air pressure. Boiler groups F, G, and H equipped with a preheated oil system shall have controls interlocked to provide fuel shutoff upon low oil temperature.

5. Automatic boilers shall have controls interlocked to shut off the fuel supply in the event of draft failure where forced or induced draft fans are used or, in the event of low combustion airflow, where a gas power burner is used. Where a single motor directly driving both the fan and the oil pump is used, a separate control is not required.

6. Boiler groups C, D, and H, when firing in excess of 400,000 (four hundred thousand) BTU per combustion chamber, shall be provided with low fire start of its main burner

system to permit smooth light-off. This will normally be a rate of one-third of its maximum firing rate.

7. Boiler groups C, D, and H shall not permit pilot or main burner trial for ignition operation before a purging operation of sufficient duration to permit not less than 4 (four) complete air changes through the furnace, including combustion chamber and the boiler passes. Where this is not readily determinable, 5 (five) complete air changes of the furnace, including combustion chamber up to the first pass, will be considered equivalent. An atmospheric gas burner with no mechanical means of creating air movement or an oil burner that obtains two-thirds or more of the air required for combustion without mechanical means of creating air movement shall not require purge by means of four air changes, so long as its secondary air openings are not provided with means of closing. Where such burners have means of closing secondary air openings, a time delay shall be provided that puts these closures in a normally open position for four minutes before an attempt for ignition. An installation with a trapped combustion chamber shall, in every case, be provided with a mechanical means of creating air movement for purging.

8. In automatic hot-water-heating boiler, low-pressure hot-water-heating boiler, and power hot water boiler shall be equipped with two high-temperature limit controls with a manual reset on the control, with the higher setting interlocked to shut off the main fuel supply, except that manual reset on the high-temperature limit control shall not be required on any automatic package boiler not exceeding 400,000 (four hundred thousand) BTU/hour (117kW) input and that has been approved by an approved testing agency. Every automatic hot-water heating, power boiler, and package hot-water supply boiler shall be equipped with one low-water level limit control with a manual reset interlocked to shut off the fuel supply, so installed as to prevent damage to the boiler and to permit testing of the control without draining the heating system, except on boilers used in Group R Occupancies of less than six units and in Group U Occupancies and further, except that the low-water level limit control is not required on package hot-water supply boilers approved by a nationally recognized testing agency. However, a low-water flow limit control installed in the circulating water line shall be permitted to be used instead of the low-water level limit control for the same purpose on coil-type boilers.

9. An automatic low-pressure steam-heating boiler, small power boiler, and power steam boiler shall be equipped with two high-steam pressure limit controls interlocked to shut off the fuel supply to the main burner with manual reset on the control, with the higher setting and two low- water-level limit controls, one of which shall be provided with a manual reset device and independent of the feed water controller. Coil-type

flash steam boilers shall be permitted to use two high-temperature limit controls, one of which shall be manually reset in the hot water coil section of the boiler instead of the low-water level limit control.

10. Boiler groups C, D, and H shall use an approved automatic reset safety shutoff valve for the main burner fuel shutoff, which shall be interlocked to the programming control devices required. On oil burners where the safety shutoff valve will be subjected to pressures in excess of 10 (ten) (69kPa) psi when the burner is not firing, a second safety shutoff valve shall be provided in series with the first. Boiler groups C and D using gas in excess of 1 (0ne) psi (7 kPa) pressure or having a trapped combustion chamber or employing horizontal fire tubes shall be equipped with two approved safety shutoff valves, one of which shall be an automatic reset type, one of which shall be permitted to be used as an operating control, and both of which shall be interlocked to the limit-control devices required. Boiler groups C and D using gas in excess of 1 psi (7 kPa) pressure shall be provided with a permanent and ready means for making periodic tightness checks of the main fuel safety shutoff valves.

11. Control and limit device systems shall be grounded with operating voltage not to exceed 150 (one hundred fifty) volts, except that, upon approval by the building official, existing control equipment to be reused in an altered boiler control system shall be permitted to use 220 (two hundred twenty) volt single phase with one side grounded, provided such voltage is used for all controls. Control and limit devices shall interrupt the ungrounded side of the circuit. A readily accessible means of manually disconnecting the control circuit shall be provided with controls so arranged that when they are de-energized, the burner shall be inoperative.

1006.8 Electrical requirements. Add the following sentence and exception to this subsection.

The required means of disconnect shall be within clear view of the boiler burner.

Exception

Where it is not possible for personnel to position themselves out of clear view of the means of disconnect while maintaining the boiler, the capability of being locked in the off position shall not be required of the means of disconnect.

Section 1007 Boiler low-water cutoff. Delete this section in its entirety and refer to Section 1006.7 as amended.

Section 1101. 11 Installation Identification. Add this subsection with the following text.

Each refrigerating system erected on the premises shall be provided with legible permanent signage, securely attached and easily accessible, as required in sections 1101.11.1 – 1101.11.3. If the type or amount of refrigerant or other indication is changed, the signs must be changed or replaced to indicate the new conditions.

1101.11.1 Each system shall be provided a sign indicating:

a. the name and address of the installer,
b. the refrigerant number and amount of refrigerant,
c. the lubricant identity and amount, and
d. the field test pressure applied

1101.11.2 Systems containing more than 110 (one hundred ten) pounds of refrigerant and consisting of controls and piping shall be provided signs having letters at least ½ (one half) inches in height indicating:

a. Each valve or switch that controls the refrigerant flow, the machinery room ventilation, and the compressors
b. The specific fluid, whether a refrigerant or secondary coolant, that is contained in exposed piping outside of the refrigerating machinery room. Valves or the piping adjacent to the valves shall be labeled in accordance with ANSI A13.1.

1101.11.3 Each Refrigeration Machinery Room entrance must have in clear view a sign reading: "Machinery Room – Authorized Personnel Only. – Only those trained in emergency procedures if the Refrigerant alarm is activated."

Section 1105.3 Refrigerant detector. Amend this section by adding a second sentence to read as follows.

Refrigerant detectors shall alarm both inside and outside the machinery room and refrigerated space.

Section 1105.6.2 Makeup air. Amend this section as follows.

Provisions shall be made for makeup air to replace that being exhausted. Openings for makeup air shall be located to avoid intake of exhaust air. Supply and exhaust ducts to the machinery room shall serve no other area, shall be constructed in accordance with Chapter 5, and shall be covered with corrosion- resistant screen of not less than ½ (one half) inch mesh.

Section 1205.1.3 Pressure vessels. Add the following exception to this subsection.

Exception: Shutoff valves for diaphragm-type expansion tanks in systems installed with a single expansion tank of 12 (twelve) gallon water volume or smaller shall not be required.

Section 1205.1.6 Expansion Tanks. Delete this subsection in its entirety.

Section 1301.1 Scope. Amend this section as follows.

The design, installation, construction, and repair of fuel oil and waste oil storage and piping shall be in accordance with this chapter and NFPA 31. The storage of fuel oil and flammable and combustible liquids shall be in accordance with the *International Fire Code*.

Section 1301.4 Fuel tanks, piping, and valves. Amend and add to this section as follows.

The tank, piping, and valves for appliances burning oil shall be installed in accordance with the requirements of this chapter. The oil supply line is required to be taken from the top of the tank only, and where the level of fuel within the tank may be above the inlet port of the appliance served an approved method to prevent siphoning from the tank must be provided. If the tank is located inside a building, emergency pressure relief venting is required to the exterior.

1**301.4.1 Day tanks or supply tanks**. Day tanks shall be installed in accordance with this code and NFPA 31.

1301.4.1.1 A day tank or supply tank of 60 (sixty) gallons or less may be installed for generators, boilers and water heaters within a boiler or mechanical room provided a 1-hour fire-resistive occupancy separation is constructed around the room containing the equipment being served and the day tank or supply tank.

1301.4.1.2 Day tanks or supply tanks which exceed 60 (sixty) gallons shall be installed in accordance with the following requirements:

a. A sprinkler system as approved by the Fire Department is required for the mechanical room.
b. The room containing the day tank or supply tank shall be located on an exterior wall.
c. Two exits shall be provided from the boiler room or mechanical room. One exit shall open directly to the exterior and be accessible to fire-fighting personnel.

d. A 2 (two) hour fire resistive occupancy separation shall be provided around the boiler room or mechanical room.

1301.4.2 Waste oil tanks. Tanks installed inside buildings for the collection of class IIIB motor vehicle waste oil and connected to listed oil-burning appliances shall be restricted to Group S-1 and motor vehicle related occupancies as referenced by the *International Building Code*. Waste oil tanks located outside of central heating enclosures shall be limited to 500 (five hundred) gallon cumulative capacity, be provided with approved emergency pressure relief venting, and shall be equipped with a hinged cap. All oil lines shall be equipped with a spring-loaded fusible valve located immediately adjacent to the tank shell.

Waste oil tanks exceeding 500 (five hundred) gallon capacity and connected to waste oil-burning appliances shall be enclosed in a separate one-hour fire-resistive occupancy separation, be provided with approved emergency pressure relief venting, and shall be surrounded by a 4 (four) inch high non-combustible curb.

Waste oil tanks located inside of central heating plant enclosures or generator mechanical rooms shall conform to section 1301.4.1 as amended. Upon approval of the Fire Chief, listed waste oil heaters may be located in other occupancy groups provided the tanks are installed outside of the building in accordance with Chapter 15 of the International Mechanical Code and NFPA 31 Chapter 12, or installed in compliance with IMC section 1301.4.1.

Chapter 15.36 Electric Code

15.36.010 Adoption.

The code known as the National Electrical Code, ~~2014~~ **2020** Edition, of the National Fire Protection Association, and every part thereof, together with the local amendments as set forth in NPMC 15.36.040, shall constitute the laws of the City relating to electrical installations. An electronic copy of the National Electrical Code is retained at the City offices. (Ord. 17-12 § 2(D), 2017; Ord. 12-10 § 2, 2012)

15.36.020 Modifications.

The Building Official shall have the power to modify any of the provisions of the National Electrical Code adopted by this chapter upon application in writing by the owner or lessee or his duly authorized agent, when there are practical difficulties in the way of carrying out the strict letter of the code; provided, that the spirit of the code is observed, public safety secured, and substantial justice done. The particulars of the modification, when granted or allowed, and the decision of the Building Official thereon shall be entered upon the records of the Department, and a signed copy shall be furnished the applicant. (Ord. 17-12 § 2(D), 2017; Ord. 12-10 § 2, 2012)

15.36.030 Appeals.

Whenever the Building Official disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of the code have been misconstrued or wrongly interpreted, the applicant may appeal from the decisions of the Building Official to the Mayor/City Manager within thirty days from the date of the decision. The appointment of the appeals board will be on a case-by-case basis with the members of said board comprised of local design professionals, contractors, inspectors or other members of the public deemed knowledgeable of the subject matter by the Mayor/City Manager. (Ord. 17-12 § 2(D), 2017; Ord. 12-10 § 2, 2012)

15.36.040 Local amendments to the National Electrical Code, 2014 Edition.

The amendments to the National Electrical Code, ~~2014~~ **2020** Edition, as published by the National Electrical Code Committee, are hereby adopted by the City of North Pole as follows:

Article 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel. Add subsection (G) to read as follows:

(G) Day Care Facilities.

In all day care facilities as defined by the current building codes adopted by the City of North Pole, all 125 (one hundred twenty-five)-volt, single phase, 15 (fifteen) and 20 (twenty) ampere

receptacles installed where accessible to children shall have ground-fault circuit-interrupter (GFCI) protection.

Article 210.52 Dwelling Unit Receptacle Outlets. Add subsection (J) to read as follows:

(J) Parking spaces.

For each dwelling unit and mobile home, there shall be at least one exterior weatherproof duplex receptacle on a separate 20 (twenty)ampere circuit adjacent to on-site parking locations.

Article 220.52 Change title to read as the following:

Article 220.52 Small-Appliance, Laundry, and Car Head bolt Heater Loads - Dwelling Unit.

Add subsections (C) and (D) to read as follows:

(C) Car Head bolt Heater Loads.

A feeder load of not less than 1500 (one thousand five hundred) volt-amperes shall be included for each individual 20 (twenty) ampere branch circuit required by Article 210.52(e). This requirement also applies to Article 220.30, 220.31, 220.32, 220.33.

(D) Commercial Parking Areas.

The minimum calculated load for each car head bolt heater receptacle is 1200 (one thousand two hundred) volt-amperes. If the service, feeder, and branch circuit overcurrent protective devices are located outside then 1200 (one thousand two hundred) volt-amperes for the first 30 (thirty) spaces, 1000 (one thousand) volt-amperes for the next 30 thirty) spaces, and 800 (eight hundred) volt-amperes for each space over 60 (sixty) will be allowed.

Article 230.9(A) Clearances. Amend as follows:

Service conductors installed as open conductors or multi-conductor cable without an overall outer jacket shall have a clearance of not less than 900 (nine hundred) mm (three feet) from windows that are designed to be opened, doors, porches, balconies, ladders, stairs, fire escapes, building attic gable vents, or similar locations.

Article 230.11 Service Detail Requirements. Add a new section as follows:

Service installations shall comply with the details of Exhibit #1 Residential Service.

Article 230.12 Temporary Power Service. Add a new section as follows:

Temporary Services shall comply with the details of Exhibit #2 Temporary Service.

Article 230.24(B) Vertical Clearance for Overhead Service Conductors. Amend as follows:

(1) 3.81 m (twelve and one half-foot) at the electrical service entrance to buildings, also at the lowest point of the drip loop of the building electrical entrance, and above areas or sidewalks accessible only to pedestrians, measured from final grade or other accessible surface only for

overhead service conductors supported on and cabled together with a grounded bare messenger where the voltage does not exceed 150 (one hundred fifty) volts to ground

(2) 3.81 m (twelve and one half-foot) over residential property and driveways, and those commercial areas not subject to truck traffic where the voltage does not exceed 300 (three hundred) volts to ground.

Article 230.26 Point of Attachment. Amend as follows:

In no case shall this point of attachment be less than 4.27 m (fourteen feet) above finished grade.

Article 230.28 Service Masts as Supports. Add subsections (C), (D), (E), (F) to read as follows:

(C) General.

When the overhead service is installed on the eave side of a structure with a pitched roof, the service mast conduit shall extend through the roof.

(D) Conduit Size.

The conduit size shall be a minimum of two inches rigid metal or intermediate metal conduit and must extend at least three feet above the roof surface. If couplings are used in the installation, they must be located below the roof overhang.

(E) Guyed Support.

The service mast conduit when installed through the roof shall be guyed to the roof with a minimum 5/8 inches galvanized closed eyebolt using a minimum of 1/8 (one eighth) inches stranded stainless steel wire aircraft cable with four approved clamps. If the service mast conduit extends above the roof over four feet in length, then a double V-guy installation is required.

(F) Protection of Meter.

When the eave overhang is less than eighteen inches, additional protection shall be required to protect the meter from snow and ice damage by a minimum of an 18 gauge galvanized metal hood or equivalent extending over the meter.

Article 230.41 Insulation of Service-Entrance Conductors. Add the following:

Individual ungrounded service entrance conductors shall be XHHW, RHW, or R-Type insulation approved for exterior use. No other insulation is acceptable.

Article 230.54(F) Drip Loops. Add the following:

For 100 (one hundred) ampere service, leave 18 (eighteen) inches of conductors, for 200 (two hundred) ampere and larger, leave 24 (twenty four) inches of conductors extending out of the weather head.

Article 230.70(A)(1) Location. Add the following:

If installed inside, a means to disconnect all conductors in the building from the service entrance conductors shall be provided on the building exterior

Article 230.70(A)(3) Remote Control. Add the following subsections:

(a) The remote-control device shall be a key switch approved by the Fire Department.

(b) The key switch shall shut down the electrical power for the entire building.

(c) If a facility is equipped with a generator, a key switch shall be installed to shut down the generator in the event of an emergency. This switch shall be located adjacent to the electrical service remote control key switch or the electrical service disconnect.

(d) Key switch locations shall be marked with a visible sign indicating “Fire Department Use Only” and “Generator Disconnect”.

Article 230.70(A)(4) Add subsection (4):

(4) Natural and Liquid Petroleum Gas. Electrical equipment (i.e.: service disconnect, electrical meters, receptacles, etc.) shall be installed not less than 5 (five) feet from any LPG tank installation and related regulators, etc. or NG meter and regulators. If the gas equipment is installed less than 5 (five) feet to the electrical equipment, then the electrical equipment shall meet the requirements of Article 500 and 501 of the National Electrical Code.

Article 230.70(B) Marking. Add the following:

When there is more than one meter on any single service, they shall be permanently identified with numbers painted on the meter base at least one inch in height or identified by other approved means that corresponds to the number on the unit served.

Article 250.66(B) Connections to Concrete Encased Electrodes. Amend the following**:**

Where the grounding electrode conductor is connected to a concrete encased electrode as permitted in 250.52(A)(3) a #4 AWG bare copper conductor consisting of at least 6.0 m (twenty feet) in length shall be installed in the footing for a 100-200 (one hundred to two hundred) ampere service. A #2 AWG bare copper conductor shall be installed in the footing for 225-300 ampere service. A 1/0 AWG bare copper conductor is required for a 350-400 (three hundred fifty to four hundred) ampere service. A 2/0 AWG bare conductor is required for a 450-500 (four hundred fifty to five hundred) ampere service and 3/0 AWG bare conductor is required for services greater than 500 (five hundred) amperes.

Article 410.36(B) Suspended Ceilings. Add the following exception:

Exception: When the light fixtures are supported seismically in accordance with the current building codes adopted by the City of North Pole the above supports are not required.

Article 700.12(D) *Generator Set.* Add subsection (6):

(6) The generator shall have an exterior disconnect complying with Article 230.70(A)(3) located adjacent to service disconnect to prevent the generator from starting when the normal power is turned off in case of an emergency or fire. A weatherproof sign shall be installed adjacent to the service disconnect that reads: Emergency Generator Disconnect Switch.

Chapter 15.42 Plumbing Code

15.42.010 Adoption.

The code known as the Uniform Plumbing Code, ~~2015~~ **2018** Edition, of the International Association of Plumbing and Mechanical Officials, and every part thereof, together with the local amendments as set forth in NPMC 15.42.040, shall constitute the laws of the City relating to plumbing. An electronic copy of the Uniform Plumbing Code is retained at the City offices. (Ord. 17-12 § 2(E), 2017; Ord. 12-11 § 2, 2012)

15.42.020 Modifications.

The Building Official shall have the power to modify any of the provisions of the Uniform Plumbing Code adopted by this chapter upon application in writing by the owner or lessee or his duly authorized agent, when there are practical difficulties in the way of carrying out the strict letter of the code; provided, that the spirit of the code is observed, public safety secured, and substantial justice done. The particulars of the modification, when granted or allowed, and the decision of the Building Official thereon shall be entered upon the records of the Department, and a signed copy shall be furnished the applicant. (Ord. 17-12 § 2(E), 2017; Ord. 12-11 § 2, 2012)

15.42.030 Appeals.

Whenever the Building Official disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of the code have been misconstrued or wrongly interpreted, the applicant may appeal from the decisions of the Building Official to the Mayor/City Manager within thirty days from the date of the decision. The appointment of the appeals board will be on a case-by-case basis with the members of said board comprised of local design professionals, contractors, inspectors or other members of the public deemed knowledgeable of the subject matter by the Mayor/City Manager. (Ord. 17-12 § 2(E), 2017; Ord. 12-11 § 2, 2012)

15.42.040 Local amendments to the Uniform Plumbing Code, ~~2015~~ 2018 Edition.

The amendments to the Uniform Plumbing Code, ~~2015~~ **2018** Edition, as published by the International Association of Plumbing and Mechanical Officials, are hereby adopted by the City of North Pole as follows:

CHAPTER 1 ADMINISTRATION

Section 101.3 Purpose. Add subsections to read as follows:

101.3.1 Referenced Codes. The technical codes as referenced elsewhere in this code shall be considered part of the requirements of this code to the prescribed extent of each reference.

References to *NFPA 54* and the *Uniform Mechanical Code* shall be replaced with adopted codes specified in sections 101.3.1.1 and 101.3.1.2

101.3.1.1 Gas. The provisions of the *International Fuel Gas Code* shall apply to the installation of fuel gas piping from the point of delivery, gas appliances and related accessories as covered in this code. These requirements apply to gas piping systems extending from the point of delivery to the inlet connections of appliances and installation and operation of residential and commercial gas appliances and related accessories.

101.3.1.2 Mechanical. The provisions of the *International Mechanical Code* shall apply to the installation, alterations, repairs, and replacement of mechanical systems, including equipment, appliances, fixtures, fittings, and/or appurtenances, including ventilating, heating, cooling, air-conditioning and refrigeration systems, incinerators, and other energy-related systems.

101.3.1.3 Administrative. The provisions of the 1997 Uniform Administrative Code shall apply to the administration and enforcement of this code. Where provisions of the City of North Pole Administrative Code and this code conflict, the more restrictive test shall apply.

101.3.1.4 Building. The provisions of the *International Building Code* shall apply where reference is made to the Building Code in this document.

Section 102.1 Conflicts Between Codes. Delete this section in its entirety and replace with the following:

When conflicts occur between this code and other technical codes, those provisions providing the greater safety to life shall govern. In other conflicts, between this code and other codes or laws, where sanitation, life safety, or fire safety are not involved, the most restrictive provisions shall govern.

Where in a specific case different sections of these codes specify different materials, methods of construction or other requirements, the most restrictive shall govern. When there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

Section 104.1 Permits required. Add the following subsection.

Section 104.1 Emergency Repairs. Where equipment or piping system replacement must be performed in an emergency situation, the permit application shall be submitted to the building official within 72 (seventy two) hours of such emergency. All required inspections shall be conducted.

104.3.2 Plan Review Fee. Delete Section 104.3.2 in its entirety and reference the 1997 Uniform Administrative Code as amended by the City of North Pole.

204.0 Building Thermal Envelope. Add the following definition to this section.

Building Thermal Envelope – For purposes of the plumbing code: the basement walls, exterior walls, floors, roofs, and any other building elements that enclose conditioned spaces, and frost-protected foundations. For frost-protected foundations with required horizontal insulation, the thermal envelope shall be considered to extend from the warm-in-winter side, to the projection of the vertical insulation, cold-in-winter exterior surface. For thermal envelope assemblies enclosing conditioned spaces, the thermal envelope assembly includes any vapor retarders.

205.0 Conditioned Space – Add the following Definition to this section.
Conditioned Space -- For purposes of the plumbing code, space within a building that is provided with heating equipment or systems capable of maintaining, through design or heat loss, 50 (fifty) degrees F during the heating season, or communicates directly with a conditioned space.

210.0 Hot Water - Delete this definition and substitute the following.
Hot Water – Water at a temperature exceeding or equal to 110 (one hundred ten) degrees F.

303.0 Disposal of Liquid Waste. Add the following sentence to this section.

Pit privies (outhouses), as defined by Alaska D.E.C. 18 AAC 72.030 & 7 AAC 10.9990(46)(B), are prohibited.

Section 312.6 Freezing Protection – Delete 312.6 in its entirety and substitute the following.
All water, soil, waste, vent, or roof drainage piping shall be installed on the warm-in-winter side of the Building Thermal Envelope assembly, including any vapor retarders.

Exception 1.

Vent piping above the roof.

Exception 2.

Vent piping, other than wet vents, may be installed within exterior walls or above the roof/ceiling assembly where enclosed within at least R-8.8 insulation. This insulation must be continuous from the piping penetration of the warm-in-winter surface of the thermal envelope to

the underside of the piping's roof sheathing penetration. The insulation of the Building Thermal Envelope assembly may be used to meet this requirement.
Exception 3. Underground Building Drain or Water Distribution piping outside the Building Thermal Envelope installed according to the circulation and insulation provisions of the latest revised standards of North Pole Utility for water and sewer services.
Exception 4. A system of frost protection that, is designed & sealed by a currently registered engineer or architect, including but not limited to heat trace installed according to Sections 301.2 & 309.4; and provided it is accessible for repair or replacement without excavation or removal of elements of construction.

Section 312.9 Steel Nail Plates. Delete 312.9 and its exception in their entirety and substitute the following.

In concealed locations where piping, other than cast-iron or steel, is installed through holes or notches in studs, joists, rafters or similar members less than 1½ (one and one half) inches from the nearest edge of the member, the pipe shall be protected by shield plates having a minimum thickness of 0.0575 inch (No. 16 gage) shall cover the area of the pipe where the member is notched or bored, and shall extend a minimum of 2 inches above sole plates and below top plates.

Section 312.12. Rodent proofing. Delete 312.12 in its entirety.

Section 402.5 Setting. Delete the Exception and substitute the following.
Exception: The installation of paper dispensers, sanitary napkin receptacles, or accessibility grab bars shall not be considered obstructions if located such that a minimum of 7 (seven) inches clearance is maintained in any direction from the outside surface of the usable portion of the fixture.

Section 403.2 Fixtures and Fixture Fittings for Persons with Disabilities. Delete this section in its entirety and refer to Chapter 11 of the 2018 IBC and ICC A117.1- 2017.

Section 411.3 Water Closet Seats. Delete the second sentence and substitute the following: Water closet seats for public use shall be of the elongated and open-front type.

Section 422.0 Minimum Number of Required Fixtures. Delete this section in its entirety and refer to Chapter 29 and Table 2902.1 as amended of the 2018 IBC.

Table 422.1 Minimum Plumbing Facilities. Delete this Table in its entirety and refer to table 2902.1 as amended of the 2018 IBC.

Section 501.0 General. Delete this section and substitute the following.
The regulations of this chapter shall govern the construction, location, and installation of fuel-burning and other water heaters heating potable water. All fuel and combustion air systems, chimneys, vents, and their connectors shall be regulated by the respective sections of the locally amended 2018 International Mechanical Code and the 2018 International Fuel Gas Code. The minimum capacity for water heaters shall be in accordance with the first hour rating listed in Table 501.1(1). All design, construction, and workmanship shall be in conformity with accepted engineering practices, manufacturer's installation instructions, and applicable standards and shall be of such character as to secure the results sought to be obtained by the respective Codes.

Section 502.1 Permits General. Add the following exception.
Exception: Replacement of an existing, approved, non-fuel-fired electric water heater with one of like size, type, and rating in a manner that maintains its approval shall not require a permit.

Section 503.2 Final Water Heater Inspection. Delete this section and substitute the following.
A final water heater inspection shall be made after all work requiring a permit has been installed in addition to inspections required for other work regulated by the mechanical code and fuel gas code.

Section 505.4.1 Single Wall Heat Exchangers. Delete part 2 (b) of this subsection and substitute the following.
(b) The pressure of the heat-transfer medium must be limited to a maximum of (labeled by installer and equal to the system safety or relief valve rating) psig by an approved safety or relief valve and the potable water system must be maintained at a normal minimum operating pressure of at least (labeled by installer and 5 psig greater than the heat-transfer medium safety or relief valve rating).

Section 603.5.10 Steam or Hot Water Boilers. Add the following exception.
Exception: Potable water makeup connections to boilers containing only heat-transfer mediums of water or other nontoxic fluid having a toxic rating or Class of 1 as listed in Clinical Toxicology of Commercial Products, 5th edition shall be permitted to be provided with a listed Backflow Preventer with Intermediate Atmospheric Vent.

603.5.16 Special Equipment. Add the following to this subsection.
Chemical Dispensers otherwise approved for connection to the potable water piping system shall not be connected to an Atmospheric Vacuum breaker hose thread in such a way that the Atmospheric Vacuum breaker is able to be pressurized, e.g. with a valve in the discharge piping.

Section 609.4 Testing. Delete the third sentence and substitute the following.
A 100 (one hundred) pound per square inch air pressure test may be substituted for the water test.

Section 612 Residential Fire Sprinkler Systems. Delete this section in its entirety.

Section 712.1 Media. Delete the first sentence and replace with the following.
The piping of the plumbing, drainage, and venting systems shall be tested with water or air.

Section 719.1 Cleanout Location. Delete the first paragraph in its entirety and replace with the following:

Cleanouts shall be placed at the connection of the building sewer and building drain outside the building and extend to grade.

Section 719.2. Delete this section in its entirety.

Section 807.3 Domestic Dishwashing Machines. Add the following subsection.

Section 807.3.1 When a compartment or space for a domestic dishwasher is provided, an approved dishwasher airgap fitting shall be installed.

812.2 Elevator Pits. Add this new Subsection.

812.2 Elevator Pits. Where drains are not provided to prevent the accumulation of water in elevator pits, sumps are required. Drains connected directly to the sanitary system shall not be installed in elevator pits. Sumps in elevator pits, where provided, shall be covered and the cover shall be level with the pit floor. The pump shall be of sufficient capacity to prevent the accumulation of water in the pit. If the building is fire-sprinklered, the pump shall be sized of at least the capacity of one energized sprinkler head.

Section 906.7 Frost or Snow Closure. Replace the first sentence with the following.
Vent terminals shall be a minimum of 3 (three) inches in diameter, but in no event smaller than the required vent pipe.

1002.2 Fixture Traps. Add the following exception to this section.
Exception: The developed length of a trap arm from a 2 (two) inch outlet private floor drain in a garage bay serving a single dwelling unit shall be permitted to exceed the distances given in Table 1002.2 if the floor drain trap and trap arm are increased to 3 (three) inch nominal size. When installed according to this exception the trap arm is required without any offsets or changes in direction and the vent shall be connected below and extend vertically into or adjacent to the first garage wall under which the trap arm passes.

Section 1101.4.6 Subsoil Drains. Delete 1101.4.6

Section 1101.6 Subsoil Drains. Delete 1101.6

Section 1101.12.1 Primary Roof Drainage. Delete the last sentence of this section and replace with the following.
Unless otherwise required by the Authority Having Jurisdiction, roof drains, gutters, vertical conductors or leaders, and horizontal storm drains for primary drainage shall be sized based on a maximum rainfall of 1 (one) inch per hour per square foot of roof area.

Section 1101.12.2.2.2 Combined System. Delete the second sentence in this subsection and replace with the following:

When the combined secondary and primary roof drain system connects to a building storm drain that connects to an underground storm sewer, a relief drain shall be installed to ensure positive common roof drain flow. The connection of this relief drain to the common drain shall not divert or obstruct the primary drain.

Section 1107.2 Methods of Testing Storm Drainage Systems. Delete the first sentence of this section and substitute the following.
The piping of storm drain systems shall be tested upon completion of the rough piping installation by water or air and proved tight.

Chapter 12 Fuel Piping. Delete this chapter in its entirety and refer to the 2018 *International Fuel Gas Code* as amended.

Chapter 14 Firestop Protection. Delete this Chapter in its entirety and refer to the *International Building Code* as amended.

Appendix C
Section C 101.3 Authority Having Jurisdiction. Add the following to this section.
For the plumbing systems in Appendix C, other than those of C301.0, C302.0, & C501.0, the design by a registered professional engineer is required where the work is not exempted by AS 08.48.331. A riser diagram or isometric indicating the provisions of Appendix C intended to be installed shall be submitted for review and approval by the Building Department prior to the work being commenced. The riser diagram or isometric is in addition to the other details or data that may be required by the Building Official.

Section C 302.2 Single-wall heat exchangers. Delete part (3) of this subsection and substitute the following.

(3) The equipment is permanently labeled according to Section 505.4.1 (3) as amended.

Section C 601.0 Single-Stack Vent System. Delete the 1st sentence of this subsection.

Appendix H Private Sewage Disposal Systems. Delete this section in its entirety and replace with the following:

Private Sewage Disposal Systems shall be designed and installed in accordance with the current standards as published by the State of Alaska Department of Environmental Conservation (D.E.C.). Written verification from D.E.C. or a State of Alaska-certified Septic System Installer of the D.E.C.'s approved installation shall be submitted to the Building Department. A Certificate of Occupancy shall not be issued until this written verification is submitted to the Building Department.

Chapter 15.50 Fire Code

15.50.010 Adoption.

The code known as the International Fire Code, ~~2009~~ **2018** Edition, as published by the International Conference of Building Officials, together with the local amendments as set forth in NPMC 15.50.040, shall constitute the laws of the City relating to conditions hazardous to life and property from fire or explosion. An electronic copy of the International Fire Code is retained at the City offices. (Ord. 12-12 § 2, 2012)

15.50.020 Modifications.

The Chief of the Fire Department shall have the power to modify any of the provisions of the International Fire Code adopted by this chapter upon application in writing by the owner or lessee or his duly authorized agent, when there are practical difficulties in the way of carrying out the strict letter of the code; provided, that the spirit of the code is observed, public safety secured, and substantial justice done. The particulars of the modification, when granted or allowed, and the decision of the Chief of the Fire Department thereon shall be entered upon the records of the Department, and a signed copy shall be furnished the applicant. (Ord. 12-12 § 2, 2012)

15.50.030 Appeals.

Whenever the Building Official after consultation with the Chief of the Fire Department disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of the code have been misconstrued or wrongly interpreted, the applicant may appeal from the decisions of the Building Official to the Mayor/City Manager within thirty days from the date of the decision. The appointment of the appeals board will be on a case-by-case basis with the members of said board comprised of local design professionals, contractors, inspectors or other members of the public deemed knowledgeable of the subject matter by the Mayor/City Manager. (Ord. 12-12 § 2, 2012)

15.50.040 Local amendments to the International Fire Code, ~~2009~~ 2018 Edition.

The amendments to the International Fire Code, ~~2009~~ **2018** Edition, as published by the International Conference of Building Officials, are hereby adopted by the City of North Pole as follows:

SECTION 105 PERMITS

105.6 Required operational permits. is amended by deleting all required operational permits except:

105.6.14 Explosives.

105.6.47 Temporary membrane structures and tents.

105.7 Required construction permits. is amended by deleting all the required construction permits except:

105.7.1 Automatic fire-extinguishing systems is amended by adding the following new section:

105.7.1.1 A person and/or company designing, installing, testing, or maintaining automatic fire extinguishing systems is required to be NICET certified and provide a current permit issued by the Alaska State Fire Marshal's Office.

105.7.7 Fire alarm and detection systems and related equipment is amended by adding the following new section:

105.7.7.1 A person and/or company designing, installing, testing, or maintaining fire alarm and detection systems and related equipment is required to be NICET certified and provide a current permit issued by the Alaska State Fire Marshal's Office.

105.7.8 Fire pumps and related equipment.

105.7.24 Standpipe systems.

105.7.25 Temporary membrane structures and tents. A construction permit is required to operate an air-supported temporary membrane structure, a temporary stage canopy, or tent having an area in excess of 400 (four hundred) square feet (37 m2).

Exceptions

1. Tents used exclusively for recreational camping purposes.
2. Fabric canopies and awnings open on all sides which comply with all the following:

2.1. Individual canopies shall have a maximum size of 700 (seven hundred) square feet (65 m2).

2.2. The aggregate area of multiple canopies placed side by side without a fire break clearance of 12 (twelve) feet (3658 mm) shall not exceed 700 (seven hundred) square feet (65 m2) total.

2.3. A minimum clearance of 12 (twelve) feet (3658 mm) to structures and other tents shall be provided.

SECTION 106
FEES

Add subsection 106.6 as follows:

106.6 Inspections. All buildings and structures subject to the authority of this code are subject to inspection pursuant to a duly adopted inspection program. In cases where the Alaska Department of Public Safety, Division of Fire and Life Safety has jurisdiction within the city limits of the City of North Pole, all inspections provided will subject the owner and/or operator to payment of fees as set forth by the Division of Fire and Life Safety. In cases where the Division of Fire and Life Safety has jurisdiction within the City of North Pole, the City cannot issue any City building permits prior to the issuance of a State Fire Marshal Permit.

Add subsection 106.7 as follows:

106.7 False and nuisance alarms. The owner of an alarm is subject to a false and nuisance alarm charge in accordance with the City of North Pole Schedule of Fees and Charges for Services.

SECTION 201
GENERAL

201.3 Terms defined in other codes. Is amended to read: Where terms are not defined in this code and are defined in the International Building Code, International Fuel Gas Code, International Mechanical Code, or Uniform Plumbing Code, as adopted by, and amended by the City of North Pole, such terms shall have the meanings ascribed to them in those codes. Where reference to any electrical code is made in this code, it means the National Electrical Code as adopted and amended by the City of North Pole.

SECTION 202
GENERAL DEFINITIONS

Educational Group E.

Group E, daycare facilities. is revised to read: This group includes buildings and structures, or portions thereof, occupied by more than five children older than 2 ½ (two ans one half) years of age, including children related to staff, who receive educational, supervision, or personal care services for less than 24 (twenty-four) hours per day.

Family Child Care Home. is added and defined as follows: A family childcare home is a licensed facility that is located within a single-family home in which personal care services are

provided by the owner or tenant that normally occupies the residence on a 24 twenty-four)-hour basis.

Exceptions

Family childcare homes operated in a primary residence (R-3) and operating between the hours of 6:00 a.m. and 10:00 p.m. may accommodate a total of twelve children, including children related to staff, provided that no more than 5 children are under the age of 2 ½ (two and one half) years, without conforming to the requirements of a Group E occupancy except for:

1. Smoke alarms as described in Subsection 907.2.11
2. General means of egress requirements of Section 1003, including emergency escape and rescue openings, as required by Section 1030, in napping or sleeping rooms,
3. Accessibility requirements as outlined in Chapter 11
4. Portable fire extinguisher requirements as described in Section 906
5. CO detection as required in IFC Section 915 and AS 18.70.095

Family childcare homes operated in a primary residence (R-3) and operating between the hours of 10:00 p.m. and 6:00 a.m. with more than 5 (five) children, including children related to staff shall be equipped with an approved automatic sprinkler system throughout, designed and installed in accordance with IFC Section 903.3.1.3 and NFPA Standard 130 (one hundred thirty) or an approved equivalent system as approved by the Fire Chief; emergency escape and rescue openings, as required by Section 1030, in napping or sleeping rooms; portable fire extinguisher requirements as described in Section 906, smoke detection as required in Subsection 907.2.11, and CO detection as required in IFC Section 915.

Foster Care Facilities. is added and defined as follows: Facilities that provide care on a 24-hour basis to more than five children 2 ½ (two and one half) years of age or less, including children related to the staff, shall be classified as Group 1-2.

Institutional Group I.

Institutional Group I-1. Amend the second paragraph of Condition 2 to read:

Three to 16 persons receiving custodial care. A facility housing more than two and not more than 16 persons receiving custodial care shall be classified as Group R-4.

Amend the third paragraph of Condition 2 to read:

Two or fewer persons receiving custodial care. A facility with two or fewer persons receiving custodial care shall be classified as Group R-3.

Institutional Group I-2. is revised to read: Institutional Group I-2 occupancy shall include buildings and structures used for medical care on a 24 (twenty-four)-hour basis for more than two persons who are not capable of self-preservation.

A childcare facility that provides care on a 24 (twenty-four)-hour basis to more than 5 (five) children who are 2 ½ (two and one half) years of age or less, including children related to staff, shall be classified as Group I-2.

Institutional Group I-4, daycare facilities. is revised to read: Institutional Group I-4 shall include buildings and structures occupied by more than five children of any age, including persons related to the staff, receiving custodial care for less than 24 (twenty-four) hours.

Nursing Home. is added and defined as follows: Facilities that provide care, including both intermediate care facilities and skilled nursing facilities, serving more than two persons, where any of the persons are incapable of self-preservation.

Residential Group R.

Residential Group R-4. Delete this paragraph in its entirety and replaced as follows: Residential Group R-4 shall include buildings, structures, or potions thereof for more than two but not more than 16 (sixteen) persons, excluding staff, who reside on a 24 (twenty-four) hour basis in a supervised residential environment and receive custodial care. This group shall include, but not be limited to, the following:

- Alcohol and drug centers
- Assisted living facilities
- Congregate care facilities
- Group homes
- Halfway houses
- Residential board and care facilities
- Social rehabilitation facilities

Occupants of residential care/assisted living facilities are capable of responding to an emergency situation without physical assistance from the staff. Occupancies which include individuals who are not capable of responding to an emergency situation or are incapable of self-preservation shall be classified as a Group I occupancy. R-4 occupancies shall be sprinklered throughout as required by section 903.2.8.2-903.2.8.4.

Evacuation Capability. is added and defined as follows: The ability of occupants, residents, and staff as a group either to evacuate a building or to relocated from the point of occupancy to a point of safety.

Impractical evacuation capability. is added and defined as follows: A group does not have the ability to reliably move to a point of safety in a timely manner. Evacuation capability of 14 (fourteen minutes) or more indicates impractical evacuation capability. Impractical evacuation capability is not allowed and must be corrected immediately with additional staff, or relocation of residents to an appropriate facility that can meet the level of care required.

Townhouse. is deleted and replaced as follows: A single-family dwelling unit constructed in a group of two or more attached units in which each unit extends from the foundation to roof and with open space on not less than 2 (two) sides. Each townhouse shall be considered a separate building as recognized by a recorded lot line between such units. Each townhouse unit shall be provided with separate water, sewer, heating, and electrical services.

SECTION 307
OPEN BURNING, RECREATIONAL FIRES AND PORTABLE OUTDOOR FIREPLACES

307.2 Permit required. is deleted and replaced with the following: A permit is required to be obtained for any open burning of brush or other organic plant material that does not create black smoke, toxic gases, or odors which may affect nearby persons as prescribed by the ADNR/ Forestry Division. Burning of other material must be approved/permitted by ADEC and FNSB Air Quality.

SECTION 405
EMERGENCY EVACUATION DRILLS

Section 405 is amended with the addition of a subsection:
405.10 False Alarms. False alarms may not be counted as a fire drill for the purposes of Section 405.

SECTION 507
FIRE PROTECTION WATER SUPPLIES

507.5.4 Obstruction. is deleted in its entirety and replaced as follows: Unobstructed access to fire hydrants, fire department inlet connections (FDC), or fire protection system control valves shall be maintained at all times. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants. Posts, fences, vehicles, growth, trash, storage, and other materials or objects shall not be placed or kept near fire hydrants, FDC, or fire protection system control valves in a manner that would prevent such equipment from being immediately discernible. No vehicle shall be parked within 15 (fifteen)

feet in front of, and 10 (ten) feet to the side of a fire hydrant, FDC, or fire protection control valve on private or public property.

SECTION 705
DOOR AND WINDOW OPENINGS

Add subsection 705.2.4.1 as follows:

705.2.4.1 Operation. Fire rated assemblies may not be obstructed or otherwise impaired from their proper operation at any time. When 2 (two) or more self-closing fire assemblies within a building have been documented as having been obstructed or impaired during 3 (three) or more consecutive inspections, the fire code official may order the installation of automatic closing devices meeting the requirements of section 716.2.6.4 of the International Building Code.

SECTION 901
GENERAL

901.3 Permits. is revised to read: Permits shall be required as set forth in section 105.7. Any company installing and/or performing maintenance on sprinkler systems shall have at least 1 (one) individual on site that holds a permit issued by the State Fire Marshal's Office.

901.6 Inspection, testing maintenance.

901.6.3 Records. is amended to read: Records of all system inspections, tests, and maintenance required by the referenced standards shall be maintained on the premises for a minimum of 3 (three) years. Copies of all inspection and service reports shall be sent to the fire code official within 30 (thirty) days of inspection, testing, and maintenance.

901.6.3.1 Records information. Initial records shall include the name of the installation contractor, type of components installed, manufacturer of the components, location and number of components installed per floor. Records shall include the manufacturers' operation and maintenance instruction manuals. Such records shall be maintained on the premises for the life of the installation. A copy of all inspection and service reports shall be sent to the fire code official within 30 (thirty) days of the install.

Add subsection 901.11 as follows:

901.11 Damage protection. Where exposed to probable vehicular damage due to proximity to alleys, driveways, or parking areas, standpipes, post indicator valves, sprinkler or standpipe

connections, and private and public fire hydrants shall be protected in an approved manner as outlined by the North Pole Utility.

SECTION 903
AUTOMATIC SPRINKLER SYSTEMS

903.2 Where required.

903.2.3 Group E. Delete this section in its entirety and replace as follows: An automatic sprinkler system shall be provided throughout all Group E occupancies. An automatic sprinkler system shall also be provided for every portion of educational buildings below the level of exit discharge. Daycare uses that are licensed to care for more than 5(five) persons between the hours of 10:00 pm and 6:00 am shall be equipped with an automatic sprinkler system designed and installed in accordance with Section 903.3.1.3 or an approved equivalent system. The use of a fire wall or barrier does not establish a separate building or fire area for purposes of this section.

Exceptions

1. Buildings with E occupancies having an occupant load of 49 (forty-nine) or less.
2. Daycare uses not otherwise required to have automatic sprinkler systems by other provisions of the code.

903.2.11 Specific buildings areas and hazards. Is revised by adding the subsection:

903.2.11.7 Pit sprinklers. Sprinklers shall be installed in the bottom of all new and existing elevator pits below the lowest projection of the elevator car but no higher than 24 (twenty-four) inches from the bottom of the pit.

903.3 Installation requirements.
A new subsection is added to read as follows:

903.3.1.1.3 Elevator hoist ways and machine rooms. When the provisions of this code require the installation of automatic sprinkler systems, the installation in elevator hoist ways and machine rooms must occur as described in IBC Chapter 30 (Elevators & Conveyer Systems) and NFPA 13, (Elevator Hoist ways and Machine Rooms) and adopted by reference, and the American Society for Mechanical Engineers (A.S.M.E.) A17.1 Safety Code for Elevators and Escalators (as adopted by the State of Alaska Dept. of Labor Standards and Safety) and adopted by reference. The sprinkler head at the top of the elevator shaft must have an isolation valve so the single head can be shut off in the event of an emergency. The valve must be marked and sealed or locked in the open position.

Exceptions

Sprinklers are not required in elevator machine rooms where the machine room is:

1. Separated from the remainder of the building as described in IBC Section 3006.4
2. Smoke detection is provided in accordance with NFPA 72 and adopted by reference
3. Notification of alarm activation is received at an approved central station alarm.

903.4 Sprinkler system supervision and alarms.

903.4.2 Alarms. is amended to by adding the following sentence to the end of the paragraph: Buildings equipped with a sprinkler system but without an alarm system shall have at least one notification device (horn/strobe) located inside the building in a commonly occupied area(s) to alert occupants of a sprinkler activation.

SECTION 907
FIRE ALARM AND DETECTION SYSTEMS

907.2 Where required – new buildings and structures

907.2.3 Group E. is revised by adding a second paragraph to read: rooms used for sleeping or napping purposes within a daycare use of Group E occupancy must be provided with smoke alarms that comply with Section 907.2.10 and Carbon Monoxide detection as required by Section 915.

907.7 Acceptance tests and completion. is amended by adding a new sentence to read: A copy of the acceptance test certificate shall be forwarded to the fire code official by the firm conducting the test within 30 (thirty) days of the completion of the installation.

907.8 Inspection, testing and maintenance.

907.8.5 Inspection, testing and maintenance. is amended by changing the last sentence to read: Records of inspection, testing, and maintenance shall be maintained, and a copy shall be delivered within 30 (thirty) days to the fire code official.

SECTION 915
CARBON MONOXIDE DETECTION

915.1 General. Revise the last sentence of this paragraph to read: Carbon monoxide detection shall be installed in existing buildings in accordance with Chapter 11 of the International Fire Code and this section.

915.1.7 Vehicle Parking. Is added as follows: Carbon monoxide detection shall be provided where there is located any vehicle parking within 25 (twenty-five) feet of any direct air intake openings.

915.4.1 Power source. Is revised by adding the following sentence to the end of the paragraph: Carbon monoxide detectors shall be permitted to be cord-and-plug type with battery backup, or battery powered in existing construction.

SECTION 1006
NUMBERS OF EXITS AND EXIT ACCESS DOORWAYS

1006.3.3.2 Exits from basements. Create a new subsection and title to read as follows: Basements in all occupancies except Group R-3 shall be provided with a minimum of at least two independent exits.

Exceptions

1. Basements used exclusively for the service of the building.
2. Basements used exclusively for storage purposes and limited to 750 (seven hundred) square feet.
3. Basements used for private offices, maintenance rooms, or laundry rooms and similar uses limited to an aggregate floor area of 500 (square feet), provided a hard-wired smoke detector is installed in the basement and interconnected to a smoke detector located on the level of discharge as approved by the City of North Pole.
4. Basements used for private offices, maintenance rooms, or laundry rooms and similar uses which are provided with a direct exterior exit to grade shall be limited to an aggregate floor area of 750 (seven hundred fifty) square feet, provided a hard-wired smoke detector is installed in the basement and interconnected to a smoke detector on the level of exit discharge as approved by the City of North Pole.
5. Buildings which are sprinklered throughout and contain a basement may have one exit, provided:

5.1 Basements are used exclusively for storage purposes and limited to 1,500 (one thousand five hundred) square feet.

5.2 Basements are used for private offices, maintenance rooms, or laundry rooms and similar uses limited to an aggregate floor area of 1,000 (one thousand) square feet.

5.3 Basements are used for private offices, maintenance rooms, or laundry rooms and similar uses and are provided with a direct exterior exit to grade shall be limited to an aggregate floor area of 1,500 (one thousand five hundred) square feet.

SECTION 1010
DOORS, GATES, AND TURNSTILES

1010.1.9 Door operation.

1010.1.9.4 Locks and Latches. is amended by adding Conditions 7 and 8 as follows:

7. In Groups B, F, M, and S occupancies, a single thumb turn may be used in exit doors, where the occupant load is 100 (one hundred) or less, in conjunction with an approved lock set when the thumb turn requires no more than one-half turn to unlock. Hardware height shall comply with Section 1010.1.9.2. This exception does not apply when panic hardware is required or installed.
8. Manual security bars for limited use may be used under the provisions and in the areas specified by section 1010.1.9.13 of this code.

Create a new subsection and title as follows:

1010.1.9.13 Manual security bar for limited use. Assembly occupancies such as restaurants, taverns, and lounges, and Group B, F, M, and S occupancies with an occupant load of less than 100 (one hundred) may utilize a manual security bar for limited use at the second required exit when the building is not occupied by the public. Assembly occupancies with an occupant load of 300 (three hundred) or less and are provided with an approved sprinkler system throughout may install a security bar on the second required exit. The manual security bar for limited use shall meet the following requirements:

1. The security bar shall be pre-approved by the City of North Pole before installation.
2. The bar shall be easily removed and shall not be provided with padlocks, chains, or other locking devices requiring special tools or knowledge.
3. The bar shall be identified by a contrasting color.
4. The door shall be provided with a sign stating, “This door is required to remain unlocked during business hours.”

The conditions and approval of the security bar installation shall be kept on file with the fire marshal. The use of this provision may be removed by the City of North Pole for non-compliance.

SECTION 1011
STAIRWAYS

1011.5 Stair treads and risers.

1011.5.2 Riser height and tread depth. is amended by adding Exception 6 to read as follows: Stairs or ladders used only to attend equipment are exempt from the requirements of Section 1011.

SECTION 1030
EMERGENCY ESCAPE AND RESCUE

1030.1 General. Revise the first sentence of the paragraph to read as follows: In addition to the means of egress required by this chapter, emergency escape and rescue openings shall be provided in Group R, I-1, and Daycare occupancies where napping or sleeping rooms are provided.

1030.1 General. is amended by deleting Exception 1.

1030.2 Minimum size. is amended by deleting Exception.

SECTION 1031
MAINTENANCE OF THE MEANS OF EGRESS
Add subsection as follows:

1031.11 Protection from falling snow and ice. Where the accumulation of snow and/or ice on a structure creates a hazardous condition, the areas below the accumulation shall be protected from falling snow and/or ice. These areas shall include (but not be limited to) building entrances and exits, pedestrian, driveways, public right-of-way, and utility locations for gas meters, fire department connections, and electrical meters, services, and disconnects, etc.

APPENDIX B
FIRE-FLOW REQUIREMENTS FOR BUILDINGS

SECTION B103
MODIFICATIONS

Add new subsections as follows:

B103.4 For buildings requiring a fire flow of 1,500 (one thousand five hundred) gallons per minute or less, located in areas not served by water mains, the Fire Chief may waive or reduce the fire flow requirements and/or may require a fire alarm system, if the cost of installing water

mains or reservoirs exceeds 5 (five percent) of the total cost of the structure(s) and improvement(s) as determined by the architect's or engineer's estimate.

B103.5. Table B105.1 is modified as follows for buildings located in areas not served by water mains:

a. Floor areas for buildings may be increased by 100 (one hundred) percent of the basic floor area without an increase in fire flow, provided that an automatic, central station, or remote station supervised smoke or heat detection system is installed throughout the structure in accordance with NFPA 72. For the purposes of this subsection, such an installation may allow type V-8 construction to be increased to 10,000 (ten thousand) square feet in area.
b. Separate fire areas within a building may be created by the construction of concrete or concrete block walls having minimum fire duration of 2 (two) hours, with no openings permitted, and extending to the outer edges of horizontal projecting elements. Full height parapets are required above the roof line.
c. Sprinkler systems installed to reduce fire flow requirements (by 75 (seventy-five) percent in accordance with the exception to section B105.2) and not otherwise required by the International Building or Fire Codes, 2018 editions, may be supplied from either pressure tanks or tanks with a listed fire pump, sized in accordance with the following criteria:

Classification	**Design Area (x1,500 sq. ft.)**	**Tank with fire pump**	**Pressure tank**
Light Hazard	0.10 gal/sq. ft.	2,000 gal.	3,000 gal.
Ordinary Hazard 1	0.15 gal/sq. ft.	2,500 gal.	3,750 gal.
Ordinary Hazard 2	0.20 gal/sq. ft.	3,000 gal.	4,500 gal.
Extra Hazard 1 & 2	Not Permitted	Not Permitted	Not Permitted

d. Sprinkler systems specifically required by the 2018 editions of the International Building Code or Fire Code shall be installed in accordance with Chapter 9 of the International Fire Code, 2018 edition. An approved water supply capable of providing ten minutes of the sprinkler system design discharge, not including hose stream allowances, shall be provided. The system must be monitored by an approved central or remote station alarm system. At such time that a water utility main is laid in front of, alongside of, or adjacent to the improved property, the owner of the property must connect the sprinkler system to the water utility main in an approved manner within one year and thirty days from the date such water service is declared available.
e. A tract of land or subdivision which has been surveyed and divided into residential lots for purpose of sale shall meet fire flow requirements as determined by Section B105.1 of this Appendix.

f. A tract of land, which, by means of incremental development, becomes similar to a tract of land or subdivision, which has been surveyed and divided into residential lots for purpose of sale, shall meet fire flow requirements as determined by Section B105.1 of this Appendix.

g. Once an approved water main system is installed, subsequent additions to existing buildings, and all new construction, shall meet the required fire flow.

h. Multiple structures on a single lot shall be individually evaluated for fire flow requirements.

Chapter 15.82 Fuel Gas Code

15.82.010 Adoption.

The code known as the International Fuel Gas Code, ~~2015~~ **2018** Edition, as published by the International Conference of Building Officials, together with the local amendments as set forth in NPMC 15.82.040, shall constitute the laws of the City relating to building regulations. Where the International Fuel Gas Code conflicts with this code, this code shall prevail. An electronic copy of the International Fuel Gas Code is retained at the City offices. (Ord. 17-12 § 2(F), 2017; Ord. 12-13 § 2, 2012)

15.82.020 Modifications.

The Building Official shall have the power to modify any of the provisions of the International Fuel Gas Code adopted by this chapter upon application in writing by the owner or lessee or his duly authorized agent, when there are practical difficulties in the way of carrying out the strict letter of the code; provided, that the spirit of the code is observed, public safety secured, and substantial justice done. The particulars of the modification, when granted or allowed, and the decision of the Building Official thereon shall be entered upon the records of the Department, and a signed copy shall be furnished the applicant. (Ord. 17-12 § 2(F), 2017; Ord. 12-13 § 2, 2012)

15.82.030 Appeals.

Whenever the Building Official disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of the code have been misconstrued or wrongly interpreted, the applicant may appeal from the decisions of the Building Official to the Mayor/City Manager within thirty days from the date of the decision. The appointment of the appeals board will be on a case-by-case basis with the members of said board comprised of local design professionals, contractors, inspectors or other members of the public deemed knowledgeable of the subject matter by the Mayor/City Manager. (Ord. 17-12 § 2(F), 2017; Ord. 12-13 § 2, 2012)

15.82.040 Local amendments to the International Fuel Gas Code, ~~2015~~ 2018 Edition.

The amendments to the International Fuel Gas Code, ~~2015~~ **2018** Edition, as published by the International Conference of Building Officials are hereby adopted by the City of North Pole as follows:

Section 101.3 Appendices. Add the following to this section.

Appendices A, B, C, & D are hereby adopted.

Except for Sections 101, 102, and the following amendments, delete Chapter 1 in its entirety and refer to the 1997 Uniform Administrative Code.

Section 101.2 Scope. Add the following sentence after the first sentence.

The storage system for liquefied petroleum gas including tanks, containers, container valves, regulating equipment, meters, and/or appurtenances for the storage and supply of liquefied petroleum gas for any building, structure, or premises shall be designed and installed in accordance with the International Fire Code and NFPA 58.

Section 101.2 Scope. Exception Delete this exception in its entirety.

Section 101.2.4 Systems, appliances and equipment outside the scope. Delete Number 13, Temporary LP-gas piping.

Section 101.5 Severability. Add a sentence as follows:

The provisions of this code shall not be deemed to nullify any provisions of local, state, or federal law.

Section 102.8 Referenced codes and standards. Add four subsections at the end of this section as follows:

102.8.3 Plumbing. Where reference to any Plumbing Code is made in this Code it means the *Uniform Plumbing Code* as adopted and amended by the City of North Pole.

102.8.4 Electrical. Where reference to any Electrical Code is made in this Code it means the *National Electrical Code* as adopted and amended by the City of North Pole.

102.8.5 Administrative. The provisions of the 1997 Uniform Administrative Code shall apply to the administration and enforcement of this code. Where provisions of the City of North Pole Administrative Code and this code conflict, the most restrictive shall apply.

102.8.6 Energy. Where reference is made in this Code to the International Energy Conservation Code it means the *IECC* as currently adopted by the City of North Pole.

Section 201.3 Terms defined in other codes. Delete this section and replace as follows.

Where terms are not defined in this code and are defined in the *International Building Code, National Electrical Code, International Fire Code, International Fuel Gas Code,* and the *Uniform Plumbing Code,* such terms shall have meanings ascribed to them as in those codes.

Section 201.4 Terms not defined. Amend this section by adding the following sentence.

Webster's Third New International Dictionary of the English Language, Unabridged shall be considered as providing ordinarily accepted meanings.

Section 301.2 Energy utilization. Delete this section in its entirety.

Section 301.16 Penetration Weatherproofing. Add this section and the following after section 301.15.

Joints at roofs and exterior walls around pipes, ducts, appurtenances, or equipment shall be made watertight by the use of approved materials.

Section 301.17 Meter Protection. Add this section and the following.

It shall be the responsibility of the Gas piping system permit-holder to provide physical damage protection and adverse weather protection as approved by the Building Department for the meter-set and piping connection to it.

Section 301.18 Carbon Monoxide Alarms. Add this section numbering, title, and the following after section 301.17.

Where a fuel-fired appliance is installed or replaced in an existing dwelling an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms. A single station, battery-operated carbon monoxide alarm shall be listed as complying with UL 2034 and shall be installed according to the manufacturer's installation instructions.

Section 303.4 Protection from vehicle impact damage. Add the following at the end of Section 303.4.

Fuel-fired equipment and appliances located within the direct perpendicular path of a garage door opening of 8 (eight) feet or less in height shall comply with Section 303.4.1

Section 303.4.1. Fuel-fired appliance protection. Fuel-fired appliances and equipment located in the direct path for vehicles as described in 303.4 shall be protected from impact with one of the following methods.

1. A minimum schedule 40 (forty) nominal 3 (three) inch diameter steel pipe 30 (thirty) inches high, with a vertical face at least 6 (six) inches in the direction of vehicle approach and:

2. Buried a minimum 2 (two) feet deep in compacted soil and imbedded in at least 4 (four) inch nominal concrete slab.
3. Set in a minimum one foot by one footboy one foot block of concrete (slab included).
4. A platform on which the equipment sits, at least 24 (twenty-four) inches high, extended at least 6” greater than the equipment footprint (including attachments such as burners and controls) in the direction of vehicle approach and in contact with the structure opposite the direction of vehicle approach.
5. An approved system of equivalent resistance to vehicle impact extending at least 6 (six) inches ahead of the equipment’s footprint in the direction of vehicle approach, including attachments such as burners and controls.

303.7 Pit locations. Add the following sentence at the end of this Section.

Liquefied petroleum gas piping shall not serve appliances located in a pit or basement where heavier-than-air gas might collect to form a flammable mixture.

Section 304.6 Outdoor combustion air. Delete this section in its entirety and replace as follows.

Combustion air for gas-fired appliances shall be provided on a basis of 1 square inch per 4000 (four thousand) BTU per hour of the total input rating of all equipment. In lieu of this requirement, combustion air may be provided in accordance with Table 304.6, but shall not be less than the sum of the areas of all vent connectors in the space. Combustion air may be provided from one opening directly communicating with the outdoors or through a vertical or horizontal duct from the outdoors or spaces that freely communicate with the outdoors. The opening into the enclosure containing the appliances shall be located no lower in elevation than 2/3 (two thirds) the distance from the top of the finished floor to the bottom of the finished ceiling in the enclosure.

TABLE 304.6
COMBUSTION AIR - CATEGORY I GAS APPLIANCES ONLY*

Appliance Size BTU Input Rating	C/A Duct Minimum Free Area (square inches)	Minimum Round Duct Size (inches)
Up to 120,000	28	6
120,000 to 155,000	38	7
155,000 to 175,000	50	8

*Note: Category II, III and IV gas appliances may use Table 7-1 as amended for oil-fired appliances per Chapter 7 of the 2018 International Mechanical Code.

Section 304.10 Louvers and grilles. Amend the fourth sentence as follows.

Screens shall have a mesh size not smaller than ½ (one half) inch.

Section 304.11 Combustion Air Ducts. Delete #4, #5, and #6 and refer to section 304.6 as amended.

Section 304.11 Combustion air ducts. Delete # 8 and replace with the following.

8. Combustion air intake openings located on the exterior of a building shall have the lowest side of such openings located not less than 18 (eighteen) inches vertically from the adjoining finished ground level or an approved alternative means provided to prevent snow blockage.

Section 305.1.1 Fuel-fired equipment startup report. Add this subsection and the following. A startup report is required for all fan-assisted or power-burner fuel-fired equipment indicating the following conditions and others which the manufacturer recommends in their installation instructions. A non-returnable copy must be provided to the inspector for insertion in the Building Department project files.

1. Company, Name, address, & Phone Number of Startup Technician
2. Manufacturer and Model No. of Equipment
3. Date and Time of Startup and Noted Readings
4. Net Stack Temperature
5. Overfire Draft
6. Breech Draft
7. Stack Draft
8. CO
9. CO2 or O2
10. Actual Rate of fuel input

Section 305.13 Area served. Add this section and the following.
Appliances serving different areas of a building other than where they are installed shall be permanently marked in an approved manner that uniquely identifies the appliance and the area it serves.

Section 310 Electrical Bonding. Add subsection 310.2.6 and the following at the end of this section.

310.2.6 Prohibited connection. The required gas piping system bonding connection to the electrical service grounding system shall not be made to any part of the gas service meter set equipment owned and operated by the Gas Utility Company. Bonding shall be on the customer side of the meter and regulator set. A direct bonding connection to Corrugated Stainless Steel Tubing is prohibited and bonding connections to Corrugated Stainless Steel Tubing systems shall be completed according to the specific tubing manufacturer’s instructions.

Section 401.11 Prohibited future piping. Add this section and the following.

Installation of piping for future use beyond a capped or plugged tee outlet is prohibited without the extension of the installation through the gas piping outlet(s) for specified equipment and appliances.

Section 403.10.5 Metallic fittings. Revise this section by deleting the words “cast iron” in #2 (two) and deleting #5 (five).

Section 406.4.1 Test pressure. Amend the first sentence of this section as follows.
Test pressure to be used shall be no less than 1½ (one and one half) times the proposed maximum working pressure but not less than 10 (ten) psig.
Section 406.8. Add a new section as follows.
Section 406.8 Temporary Gas Installations. The installation of temporary gas shall comply with this section.

406.8.1 Temporary gas approval may be given to provide heating prior to the completion of the building’s primary heating system.

406.8.2 The heating appliance must be listed and labeled for its use to provide space heating and installed according to the manufacturer’s installation instructions, including all the manufacturer’s required clearances to combustibles.

406.8.3 The return air for furnaces used for temporary heat shall ducted from a minimum of 10 feet from the appliance.

406.8.4 Portable space heaters shall be provided with one hundred percent (100%) outside air to the back end of the heater and the regulator vented to outside the space being heated.

406.8.5 Gas hose used for temporary heaters shall be an approved type and all manufacturers’ listed clearances shall be maintained. The hose shall have an internal wire mesh or braid to render it “kink proof”. This wire mesh or braid shall run the full length of the hose. Each time a section of hose is used it shall be tested at a minimum of sixty (60) psi air pressure and labeled with temporary approval by the Building Department. The absence of the temporary approval label any time after gas service is supplied shall be cause to discontinue temporary gas service.

406.8.6 Corrugated Stainless Steel Tubing used for temporary gas service must be installed and approved as a permanent installation. Unsupported, unprotected CSST is specifically prohibited.

406.8.7 Temporary gas valve outlets not connected to an appliance or equipment shall be plugged or capped leak tight.

Section 410.3.2 Regulator Vent Openings. Add the following subsection.
Regulator vent openings shall not be located closer than 10 (ten) feet horizontally to any mechanical outdoor air intake opening or 3 (three) feet horizontally from any gravity outdoor air

intake opening, including opening doors and windows, unless such vent opening is at least 2 (two) feet above the air intake opening. Regulator vent openings must be at least 12 (twelve) inches above the anticipated snow level of 18 (eighteen) inches. Regulator vent openings shall not be located closer than 5 (five) feet to any electrical equipment including service disconnects, electrical meters, receptacles, etc., unless such electrical equipment meets the requirements of Article 500 and 501 of the National Electrical Code.

Section 501.3 Masonry chimneys. Add the following sentence at the end of this section.
Exterior masonry chimneys shall not be used to vent gas appliances.

Section 501.6 Positive pressure. Amend this section by adding the following paragraph and subsection at its end.
Vents taller than 15 (fifteen) feet in height serving positive pressure equipment must be provided with provisions for an atmospheric balanced draft per 501.6.1.

501.6.1.1.1 Positive pressure greater than 15 (fifteen) feet in height. For positive pressure equipment with venting system greater than 15 (fifteen) feet in height, provide an atmospheric balanced draft vent, i.e. provide a barometric draft regulator. The height of the vent shall be measured from the base of the appliance to the outlet of the chimney. Vent must be sized to prevent positive pressure. Multiple heating appliances connected to a vent greater than 15 (fifteen) feet in height shall be provided with separate draft or atmospheric controls for each appliance.

Section 502.5 Installation. Add the following sentence at the end of this section.
Vertical Vent terminations above a roof must extend at least 18 (eighteen) inches above the roof. Vent terminations through a wall must be at least above an anticipated snow depth of 18 (eighteen) inches.

Section 502.8 Location and support of venting systems other than masonry chimneys. Add this section with the following.
Vent terminations that penetrate a metal roof with a slope greater than 1:12 (one to twelve) shall be protected by snow guard or deflector of a type and design approved by the Code Official.

Section 502.9 Vent height limitations. Add this section with the following.
Vents which do not exceed 15 (fifteen) feet in height need not be provided with an atmospheric draft or control device unless required by Section 501.6. The height of the vent shall be measured from the base of the appliance to the outlet of the chimney. The entire length of the vent shall be factory sealable. The vent must be sized to avoid negative pressure.

Section 502.10 Vent Enclosure. Add this section with the following.

Venting systems installed with greater than 5 (feet) feet of developed length outside the building's thermal envelope shall be enclosed with at least an R-11 enclosure from the penetration of the thermal envelope to a point no greater than 5 (five) feet from the vent's outlet.

Section 503.3.6 Above-ceiling air-handling spaces. Add the following sentence to Item No. 1: The vent material shall have a flame spread index of not more than 25 (twenty-five) and a smoke-developed index of not more than 50 (fifty) when tested in accordance with ASTM E84.

Section 614.2 Duct penetrations. Delete this section in its entirety and replace with the following.

Ducts that exhaust clothes dryers shall not penetrate required fire-resistive assemblies unless enclosed in a fire-resistive shaft complying with the building code

Chapter 15.90 Energy Code

15.90.010 Adoption.

The code known as the International Energy Conservation Code, ~~2009~~ **2018** Edition, as published by the International Conference of Building Officials, together with the local amendments as set forth in NPMC 15.90.040, shall constitute the laws of the City relating to building regulations. Where the International Energy Conservation Code conflicts with this code, this code shall prevail. An electronic copy of the International Energy Conservation Code is retained at the City offices. (Ord. 12-14 § 2, 2012)

15.90.020 Modifications.

The Building Official shall have the power to modify any of the provisions of the International Energy Conservation Code adopted by this chapter upon application in writing by the owner or lessee or his duly authorized agent, when there are practical difficulties in the way of carrying out the strict letter of the code; provided, that the spirit of the code is observed, public safety secured, and substantial justice done. The particulars of the modification, when granted or allowed, and the decision of the Building Official thereon shall be entered upon the records of the Department, and a signed copy shall be furnished the applicant. (Ord. 12-14 § 2, 2012)

15.90.030 Appeals.

Whenever the Building Official disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of the code have been misconstrued or wrongly interpreted, the applicant may appeal from the decisions of the Building Official to the Mayor/City Manager within thirty days from the date of the decision. The appointment of the appeals board will be on a case-by-case basis with the members of said board comprised of local design professionals, contractors, inspectors or other members of the public deemed knowledgeable of the subject matter by the Mayor/City Manager. (Ord. 12-14 § 2, 2012)

15.90.040 Local amendments to the International Energy Conservation Code, ~~2009~~ 2018 Edition.

The amendments to International Energy Conservation Code, ~~2009~~ **2018** Edition, as published by the International Conference of Building Officials are hereby adopted by the City of North Pole as follows:

Commercial Provisions Chapter 1 – Chapter 6. Delete this section in its entirety.

Residential Provisions Chapter 1. Delete sections R101.5-101.5.1 and R102-R109 in their entirety and refer to the City of North Pole Administrative Code.

Section R202 General Definitions.

Vapor Retarder. Create a new definition to read as follows:

Vapor retarder: A vapor resistant material, membrane, or covering having a permeance rating of .06 perm and recognized as a class 1 (one) vapor retarder in accordance with the International Residential Code.

Section R401.3 Certificate. Delete this section in its entirety.

Table R402.1.2 Insulation and Fenestration Minimum R-Values by Component. Delete the table in its entirety and replace with the following:

Table R402.1.1 Insulation and Fenestration Minimum R-Values by Component

Climate Zone	Windows	Doors	Ceiling[1]	Exterior frame wall[4]	Floor[5]	Below grade wall[2]	Slab[3] & Depth	Crawl-space wall[2]
8	3.22	7	60 or 49	21	38	15/19	15, 4ft	15/19

1. The smaller value may be used with a properly sized, energy-heel truss.
2. The first R-value applies to continuous insulation, the second to framing cavity insulation; either meets the requirement.
3. R-5 shall be added to the required slab edge R-values for heated slabs. Insulation shall not be placed below the footing portion unless bearing on entirely non-frost susceptible soils.
4. Includes rim joists
5. For exposed floors, floors above crawl spaces do not require insulation.

Section R402.1.3 R-value Computation.
Delete the last sentence in its entirety.

Table R402.2.1Insulation and Fenestration Requirements by Component & Table R402.1.4 Equivalent U-Factors. Delete the tables in their entirety and replace with the following:

Table R402.1.2 Insulation and Glazing Maximum U-Factors by Component[3]

Climate Zone	Windows	Doors	Ceiling[1]	Exterior frame wall[4]	Floor[5]	Below grade wall[2]	Slab[3]	Crawl-space wall[2]
8	0.31	0.14	0.017 or 0.020	0.047	0.0026	0.067/ 0.053	0.067	0.066/ 0.052

1. The smaller value may be used with a properly sized, energy-heel truss.
2. The first R-value applies to continuous insulation, the second to framing cavity insulation; either meets the requirement.
3. R-5 shall be added to the required slab edge R-values for heated slabs. Insulation shall not be placed below the footing portion unless bearing on entirely non-frost susceptible soils.
4. Includes rim joists
5. For exposed floors, floors above crawlspaces do not require insulation.

Section R402.2.1 Ceilings with attic spaces. Amend this section by adding the following exception:

Exception

R-49 fiberglass blanket insulation may be compressed at the eave to provide a 1.5-inch air space when installed between wood trusses having a minimum heel height of 11.25 inches.

Section R402.2.5 Mass walls. Delete this section in its entirety.

Section R402.2.11 Crawl space walls. Delete this section in its entirety and rename and replace as follows:

Section R402.2.11 Crawl space walls and adjacent floor.

Floors located above crawl spaces and not directly exposed to exterior ambient temperatures are not required to be insulated if such spaces contain, plumbing piping, hydronic piping or water and sewer services. Crawl spaces may be vented by natural or mechanical means as prescribed by the International Residential Code or International Building Code. Crawl spaces which are vented to the exterior and contain piping as described above shall be protected during freezing temperatures by an approved method or material. Crawl space wall insulation shall be permanently fastened to the wall and extend downward from the floor level to the top of the footing. Exposed earth in crawl space foundations shall be covered with a continuous vapor

retarder. All joints of the vapor retarder shall overlap by 6 inches and be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches up the stem wall and shall be attached or secured to the stem wall in an approved manner.

Section R402.4.6 Moisture control (Mandatory) Create a new section and title to read as follows.

Moisture control (Mandatory). The building design shall not create conditions of accelerated deterioration from moisture condensation. Walls, floors, ceilings, crawl space walls, crawl space floors, and concrete slabs shall incorporate an approved, continuous, vapor retarder. The vapor retarder shall be installed on the warm side of the insulation. All seams shall be lapped a minimum of one stud or joist bay or sealed with an approved tape or sealant. All voids between joists and studs shall be insulated and sealed in an approved manner.

Exceptions:

1. In construction where moisture or its freezing will not damage materials.
2. One-third of total installed insulation may be installed on the warm side of vapor retarders.

Section R403.1.1 Programmable Thermostat. Delete this section

Section R403.2 Hot water boiler outdoor temperature setback. Delete this section.

Section R403.3.2 Sealing (Mandatory). Delete this section in its entirety and replace with the following:

All ducts, air handlers, filter boxes, and building cavities used as ducts shall be sealed. Joints and seams shall comply with the 2018 International Mechanical Code as adopted by the City of North Pole.

Section R403.3.48 Duct material. Create a new subsection to read as follows:

A duct transporting ventilation air shall be constructed of a smooth-walled material, such as galvanized steel or lined fiberglass (rigid or semi-rigid). The use of flexible ducting is approved as a transition from rigid ducting to mechanical and air handling equipment. In all circumstances flexible ducting shall be installed per the manufacturer’s instructions. Flexible ducting shall be supported to prevent sags. The radius at the centerline shall not be less than one duct diameter.

Section R403.4 Mechanical system piping insulation (Mandatory). Insert an exception to read as follows:

Exception: piping installed within the building thermal envelope.

Section R403.6 Mechanical ventilation (Mandatory) Add the following to this paragraph:

Ventilation shall comply with the 2018 International Mechanical Code or the latest edition of the ASHRAE Standard 62.2 as referenced. Exterior exhaust vents shall be located to prevent exhaust air from entering attic or soffit vents.

Section R403.7 Equipment sizing and Efficiency Rating (Mandatory). Add the following to the end of the paragraph:

Heating and cooling equipment shall be sized in accordance with the 2018 International Mechanical Code as adopted by the City of North Pole or based on design loads determined in accordance with the procedures described in ASHRAE Fundamentals Handbook, or other approved equivalent computational procedures.

Section R404 Electrical Power and Lighting Systems. Delete this section in its entirety.

Section R405.3 Performance based compliance Add an exception to read as follows:

Exceptions

Compliance may be demonstrated through a home energy rating under a program approved by the Alaska Housing Finance Corporation (AHFC) that meets the following:

1. A minimum four star plus rating is required.
2. The maximum air infiltration rate shall not exceed seven air changes per hour at 50 (fifty) Pascal's pressure difference.
3. The compliance rating shall be performed by a person authorized by AHFC.
4. Compliance with sections 404.4 through 404.6 is not required.

Chapter 6 Referenced Standards. Add the following to the ASHRAE section:

62.2 2013 Ventilation and acceptable indoor air quality in low rise buildings.

Sponsored by: Mayor Michael W. Welch
Introduced & advanced: February 7, 2022
Possible Adoption: February 22, 2022

CITY OF NORTH POLE

ORDINANCE 22-03
AN ORDINANCE OF THE CITY OF NORTH POLE, ALASKA TO PURCHASE LOADERS FOR THE UTILITY AND PUBLIC WORKS DEPARTMENT AND A SKID STEER LOADER FOR THE PUBLLIC WORKS DEPARTMENT

WHEREAS, changes to the public services practices and policies is a continually changing requirement; and

WHEREAS, the City of North Pole Municipal Code should be amended to conform to the requirements of the City.

WHEREAS, the public Works and Utility Departments provide critical services for the residents of the City, City departments and utility customers outside of the City that include, but are not limited to, water and sewer service; water for firefighting; clearing pedestrian paths and City facilities of snow; and managing stormwater runoff, and

WHEREAS, interruption or inability to provide these services can result in dangerous and costly conditions for residents and City departments.

WHEREAS, according to Chapter 4.16 Purchasing; Section 4.16.040 Competitive sealed bidding of the Municipal Code states:

> (E) The City Council may award contracts based upon requests for bids or requests for proposals issued by another entity provided the requests for bids or requests for proposals meet the minimum requirements detailed in subsection (A) of this section for bids or subsection (B) of this section for proposals and provided:
>
> 1. The Mayor or his designee certifies in writing to the City Council that the request for bids or request for proposal process of the entity issuing the request satisfies the minimum requirements detailed in subsection (A) of this section for bids or subsection (B) of this section for proposals.
> 2. The submitting party to whom a contract is to be awarded agrees to honor the prices and conditions contained in their original submission in response to the request for bids or request for proposals.

WHEREAS, Sourcewell Cooperative Purchasing's competitive bidding process exceeds the minimum standards of the City's mandatory competitive bidding requirements, and

Sponsored by: Mayor Michael W. Welch
Introduced & advanced: February 7, 2022
Possible Adoption: February 22, 2022

WHEREAS, local vendors that belong to the Sourcewell network are the businesses from whom the City would purchase the requested equipment,

NOW, THEREFORE, BE IT ORDAINED by the Council of the City of North Pole that the Utility Department is authorized to purchase a loader and trailer for transporting the loader for a total of $104,196 as detailed in the attached quote and the Public Works Department be authorized to purchase a loader and skid steer loader for $201,597 as in the attached the funds for the purchases are detailed in the attached Fiscal Note.

Section 1. This ordinance is of a general and permanent nature and shall be not codified.
Section 2. This ordinance shall take effect upon passage.

PASSED AND FORWARDED by a duly constituted quorum of the North Pole City Council for possible adoption the 22nd day of February 2022.

_____
MICHAEL WELCH, Mayor

ATTEST:

_____
Melissa Dionne, City Clerk

Quote Valid for 90 days

Contract: 032119-VCE Utility

Date: 1/10/2022

Buying Agency:	City of North Pole Alaska	**Dealership:**	Construction Machinery Industrial, LLC
Contact Person:	Paul Trissel	**Prepared By:**	Rich Dunham
Phone:	907-488-6111	**Phone:**	907-455-9600
Email:	northpoleutilities@alaska.net	**Email:**	r.dunham@cmiak.com
Sourcewell Product Code	E - Volvo Pricing Catalog: Wheel Loaders (Compact)		

A. Catalog / Price Sheet Items being purchased

Quan		Unit Pr	Total
1	Volvo L30GS Compact Loader High Speed	$81,969	$81,969
	TOTAL Purchse Price at Bottom of this Page		
		Sourcewell Machine Price:	$81,969
		Additional Discount:	$0
		Subtotal A:	**$81,969**

B. Sourced and/or Non-Contracted Items

Quan	Description	Unit Pr	Total
1	Valor 16TUS UtilityTrailer Stock # TR222999	$21,727	$21,727
1			$0
1			$0
1			$0
1			$0
1			$0
1			$0
1			$0
		Subtotal B:	**$21,727**

C. Freight / Installation / Ext Warranty / Trade-Ins / Other Allowances/ Miscellaneous Charges

Freight	
PDI	$500
Subtotal C:	**$500**

Delivery Date:

D. TOTAL PURCHASE PRICE (A+B+C): **$104,196**

Construction Machinery Industrial, LLC

PROPOSAL

2615 20th Avenue
Fairbanks, AK 99709
Ph: (907) 455-9600 Fax: (907) 460-9700

Proposal #:
Page 1 of 1
Date: 1/10/2022
Issued by: Rich Dunham
Cell #: 907-378-5600
Email: r.dunham@cmiak.com

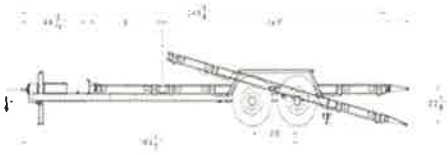
To: **City of North Pole**

Attention: Paul Trissel
907-488-6111
northpoleutilities@alaska.net

We at Construction Machinery are pleased to quote the following equipment for your review:

TR222999 Valor 16TUS Tilt-Deck Trailer

GVWR 19,200 lbs
Capacity (Distributed) 15,280 lbs
Base Trailer Weight 3,920 lbs
Axles Qty 2 - 8,000 lb Capacity
Suspension Rubber Torsion
Wheels 17.5" x 6.75" 8 on 6.5" Bolt Pattern
Tires ST215/75R17.5 Radial Load Range H
Hitch 2.5" ID Lunette Eye, Adjustable Height
Deck Latch Over-Center Slider Shaft Latch with Tension Adjuster and Safety Pin
Cushion Cylinder 3" x 8" with Internal Metered Flow to Cushion Loading and Unloading
Load Securement 12 each (6 per side) 1" Diameter D-rings and Stake Pockets
Tool Compartment Combination Open Tool Tray and Lockable Toolbox
Decking Width 82.5" Between Fenders



Sales Price FOB CMI Fairbanks Branch..... $ 21,727.00

Prices are valid for 30 days.

Machine availability subject to prior sale or lease.

Any applicable taxes not included.

WARRANTIES: Buyer acknowledges that it has examined the merchandise as fully as it desires and that the merchandise is of the size, design, type, and manufacture selected by Buyer. IF THE MERCHANDISE SOLD IS NEW, THE PARTIES AGREE THAT IMPLIED WARRANTIES OF SUCH MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AS WELL AS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE EXCLUDED FROM THIS TRANSACTION AND SHALL NOT APPLY TO THE MERCHANDISE SOLD. However, for new merchandise, Seller shall make available to Buyer, to the extent provided by the manufacturer of the merchandise, solely on behalf of the manufacturer, any warranty provided by the manufacturer, which shall be Buyer's sole and exclusive remedy. For used merchandise, Buyer is purchasing the merchandise AS and WITH ALL FAULTS, unless Seller has explicitly written in this document that there is an express warranty for a limited period of time for the replacement of parts that Seller, in it's sole judgment, determines to be defective. If seller has explicitly written such an express warranty in this document, the replacement of parts found to be defective during the warranty period shall be Buyer's sole and exclusive remedy. EXCEPT FOR SUCH AN EXPRESS WARRANTY THAT SELLER HAS EXPLICITLY WRITTEN IN THIS DOCUMENT, THERE IS NO WARRANTY OF ANY KIND FOR USED MERCHANDISE, EXPRESS OR IMPLIED AND IN PARTICULAR, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED FROM THIS TRANSACTION AND SHALL NOT APPLY TO THE MERCHANDISE SOLD. AS TO EITHER NEW OR USED MERCHANDISE SELLER SHALL IN NO EVENT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER FOR PERSONAL INJURY, DEATH, DAMAGE OR DESTRUCTION OF PROPERTY, LOST EARNINGS, LOST PROFITS, ECONOMIC LOSSES, OR OTHER INCIDENTAL OR CONSEQUENTIAL LOSSES.

Construction Machinery Industrial, LLC
By: Rich Dunham
Title: Equipment Sales/Rentals

Accepted by: _____
Title: _____
Date _____
City of North Pole

Construction Machinery Industrial, LLC

PROPOSAL

2615 20th Avenue
Fairbanks, AK 99709
Ph: (907) 455-9600 Fax: (907) 460-9700

Proposal #:
Page 1 of 1
Date: 1/6/2022
Issued by: Rich Dunham
Cell #: 907-378-5600
Email: r.dunham@cmiak.com

To: **City of North Pole**

Attention: Paul Trissel
northpoleutilities@alaska.net
907-488-6111

We at Construction Machinery are pleased to quote the following equipment for your review:

Volvo L30GS Compact Wheel Loader
Dunlop 405/70 R18 SPT9 Tires (74" width over tire)
Front Mudflaps
Cab w/ HVAC, Radio, 2" Seat Belt, Suspension Seat
LED Worklight package, Beacon, Reverse Lamp pkg, Audible Back Up Alarm
Engine Block Heater, Water Weparator w/ Heater, Winterized
Reversing Cooling Fan
Single lever work group controls with 3rd function auxillary hydraulics
Bucket leveling w/ cut out switch
Skid Steer Coupler, Two Hyd quick-couplers for 3rd function
75" 1.2cyd GP Bucket with BOCE
53" Fork Frame with 48" Fork Tines
Life Time Frame Warranty

Soourcewell Awarded Contract # 032119-VCE

Sales Price Sourcewell Contract Pricing	**$ 82,469.00**
Prices are valid for 30 days.	
Machine availability subject to prior sale or lease.	
Any applicable taxes not included.	

WARRANTIES: Buyer acknowledges that it has examined the merchandise as fully as it desires and that the merchandise is of the size, design, type, and manufacture selected by Buyer. IF THE MERCHANDISE SOLD IS NEW, THE PARTIES AGREE THAT IMPLIED WARRANTIES OF SUCH MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AS WELL AS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE EXCLUDED FROM THIS TRANSACTION AND SHALL NOT APPLY TO THE MERCHANDISE SOLD. However, for new merchandise, Seller shall make available to Buyer, to the extent provided by the manufacturer of the merchandise, solely on behalf of the manufacturer, any warranty provided by the manufacturer, which shall be Buyer's sole and exclusive remedy. For used machandise, Buyer is purchasing the merchandise AS and WITH ALL FAULTS, unless Seller has explicitly written in this document that there is an express warranty for a limited period of time for the replacement of parts that Seller, in it's sole judgment, determines to be defective. If seller has explicitly written such an express warranty in this document, the replacement of parts found to be defective during the warranty period shall be Buyer's sole and exclusive remedy. EXCEPT FOR SUCH AN EXPRESS WARRANTY THAT SELLER HAS EXPLICITLY WRITTEN IN THIS DOCUMENT, THERE IS NO WARRANTY OF ANY KIND FOR USED MERCHANDISE, EXPRESS OR IMPLIED AND IN PARTICULAR, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED FROM THIS TRANSACTION AND SHALL NOT APPLY TO THE MERCHANDISE SOLD. AS TO EITHER NEW OR USED MERCHANDISE SELLER SHALL IN NO EVENT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER FOR PERSONAL INJURY, DEATH, DAMAGE OR DESTRUACTION OF PROPERTY, LOST EARNINGS, LOST PROFITS, ECONOMIC LOSSES, OR OTHER INCIDENTAL OR CONSEQUENTIAL LOSSES.

Construction Machinery Industrial, LLC
By: Rich Dunham
Title: Equipment Sales/Rentals

Accepted by: _____
Title: _____
Date _____
City of North Pole

Quote Valid for 90 days

Sourcewell Awarded Contract

Contract: 032119-VCE

Public Works

Date:

Buying Agency:	City of North Pole	**Dealership:**	Construction Machinery Industrial, LLC
Contact Person:	Cody Lougee	**Prepared By:**	Rich Dunham
Phone:	907-388-7002	**Phone:**	907-455-9600
Email:	CLougee@northpolealaska.org	**Email:**	r.dunham@cmiak.com
Sourcewell Product Code			

A. Catalog / Price Sheet Items being purchased

Quan		Unit Pr	Total
1	Volvo L45H Compact Wheel Loader w/ Bucket and Forks	$127,523	$127,523
		Sourcewell Machine Price:	$127,523
		Additional Discount:	$0
		Subtotal A:	**$127,523**

B. Sourced and/or Non-Contracted Items

Quan	Description	Unit Pr	Total
1	ASV VS-75 Skid Steer (see attached descriptive literature)	$72,824	$72,824
1			$0
1			$0
1			$0
1			$0
1			$0
1			$0
1			$0
		Subtotal B:	**$72,824**

C. Freight / Installation / Ext Warranty / Trade-Ins / Other Allowances/ Miscellaneous Charges

Freight	$750
PDI	$500
Subtotal C:	**$1,250**

Delivery Date:		**D. TOTAL PURCHASE PRICE (A+B+C):**	**$201,597**

Construction Machinery Industrial, LLC

PROPOSAL

2615 20th Avenue
Fairbanks, AK 99709
Ph: (907) 455-9600 Fax: (907) 460-9700

Proposal #:
Page 1 of 1
Date: 1/18/2022
Issued by: Rich Dunham
Cell #: 907-378-5600
Email: r.dunham@cmiak.com

To: **City of North Pole**

Attention: Cody Lougee
CLougee@northpolealaska.org
907-388-7002

We at Construction Machinery are pleased to quote the following equipment for your review:

Volvo L45H Compact Wheel Loader
Bridgestone 17.5R25 VSW 2150mm (86") over tires 85" - **snow tires**
Wide fenders with mudguards
Cab w/ HVAC, Radio, 2" Seat Belt, Heated Suspension Seat
LED Worklight package, Beacon, Heated Mirrors, Audible Back Up Alarm
Engine Block Heater, Water Separator w/ Heater, Winterized
Reversing Cooling Fan
Single lever work group controls with 3rd function auxillary hydraulics
High Flow Hydraulics, 38GPM
Ride Control, Bucket leveling w/ cut out switch
Volvo Quick Coupler, Two Hyd quick-couplers for 3rd function
88"" 2.6cyd GP Bucket with BOCE
58" Fork Frame with 59" Fork Tines
Life Time Frame Warranty

Soourcewell Awarded Contract # 032119-VCE

Sales Price Sourcewell Contract Pricing	**$ 128,023.00**
Prices are valid for 30 days.	
Machine availability subject to prior sale or lease.	
Any applicable taxes not included.	

WARRANTIES: Buyer acknowledges that it has examined the merchandise as fully as it desires and that the merchandise is of the size, design, type, and manufacture selected by Buyer. IF THE MERCHANDISE SOLD IS NEW, THE PARTIES AGREE THAT IMPLIED WARRANTIES OF SUCH MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AS WELL AS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE EXCLUDED FROM THIS TRANSACTION AND SHALL NOT APPLY TO THE MERCHANDISE SOLD. However, for new merchandise, Seller shall make available to Buyer, to the extent provided by the manufacturer of the merchandise, solely on behalf of the manufacturer, any warranty provided by the manufacturer, which shall be Buyer's sole and exclusive remedy. For used merchandise, Buyer is purchasing the merchandise AS and WITH ALL FAULTS, unless Seller has explicitly written in this document that there is an express warranty for a limited period of time for the replacement of parts that Seller, in it's sole judgment, determines to be defective. If seller has explicitly written such an express warranty in this document, the replacement of parts found to be defective during the warranty period shall be Buyer's sole and exclusive remedy. EXCEPT FOR SUCH AN EXPRESS WARRANTY THAT SELLER HAS EXPLICITLY WRITTEN IN THIS DOCUMENT, THERE IS NO WARRANTY OF ANY KIND FOR USED MERCHANDISE, EXPRESS OR IMPLIED AND IN PARTICULAR, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED FROM THIS TRANSACTION AND SHALL NOT APPLY TO THE MERCHANDISE SOLD. AS TO EITHER NEW OR USED MERCHANDISE SELLER SHALL IN NO EVENT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER FOR PERSONAL INJURY, DEATH, DAMAGE OR DESTRUACTION OF PROPERTY, LOST EARNINGS, LOST PROFITS, ECONOMIC LOSSES, OR OTHER INCIDENTAL OR CONSEQUENTIAL LOSSES.

Construction Machinery Industrial, LLC
By: Rich Dunham
Title: Equipment Sales/Rentals

Accepted by: _____
Title: _____
Date _____
City of North Pole

125 Snowman Lane
North Pole, Alaska 99705
(907) 488-8593
(907) 488-3002 (fax)
bill.butler@northpolealaska.org

City of North Pole
Director of City Services

Memo

To: North Pole City Council

From: Bill Butler

Date: February 17, 2022

Subject: Funding to conduct a thorough investigation of the area served by aging steel water mains, develop 35% design documents for the replacement of the steel water mains, and provide a cost estimate to replace the steel water mains.

The water mains in the core of the City were installed in the early 1970s and largely consist of 10-gauge steel piping that is about 1/8" thick walls. There are approximately 21,000 feet of this pipe. The exterior of the mains are coated with a jacket of insulation and the interior of the mains are coated with a tar-like material to inhibit corrosion. These mains are approximately 50 years old and many are deteriorating rapidly. (See attached picture from a section of salvaged pipe.). The concern is that as pipe deterioration continues the probability of minor and catastrophic failures increase. Should there be a catastrophic failure in winter, entire neighborhoods could lose water and fire protection services for months.

A compounding problem is customer water service is delivered via pit orifices that pertrude into the water mains. These pit orifices prevent using a slip lining approach to "repair" the pipe. Replacing the steel water mains will also be disruptive to the residents in the affected neighborhoods—roads will be excavate and water service provided by temporary means. The wholesale excavations will also require significant expense to replace the roads that must be excavated to install new water mains and new customer service lines.

The initial phase of the project will include the following:

Investigations

Stantec will conduct a thorough records review of existing water mains and other buried utilities. The neighborhoods served by the steel water mains will need to be thoroughly surveyed to generate a topographic survey of the water main locations, roads, existing improvements such as drainage, pavements, driveways, etc., and visible utility features such as valve boxes, manholes, etc. Surveying is also necessary to identify property lines to the extent needed for construction. In conjunction with surveying the neighborhoods, Shannon and Wilson Inc., will develop a geotechnical report for the

project area. The report will provide a general review of soil conditions, water table, and dewatering expectations, and recommendations for trench excavations, backfill, and restoration of roadways.

35% Concept Design, Design Report

Once the survey is complete, Stantec will prepare a design report detailing the findings, existing conditions, and recommendations for the project. The report will include concept drawings at approximately 35% level of completion illustrating the proposed locations for the new water mains, points of connection, and potential conflicts. The design report will include discussion of construction phasing and / or temporary water requirements necessary to maintain service to the adjacent properties. An important product of the 35% design includes a construction cost estimate. The 35% conceptual design and cost estimate are essential documents for obtaining external funding.

This first phase of the project will cost the following:

- Investigations ---------- $144.883.80
- 35% design and design report (including cost estimate) ---------- $85,156.00
- Total ---------- $230,039.80

A copy of Stantec's entire engineering and design proposal is attached. Stantec has agreed that dividing the project into phases is logical and agreed to perform the Investigations and 35% design as part of Phase 1.

Sample of a steel water main salvaged by the Utility Department after the repair of a leak in the main.

Sponsored by: Mayor Michael W. Welch
Advanced: February 22, 2022

CITY OF NORTH POLE
ORDINANCE 22-04
AN ORDINANCE OF THE CITY OF NORTH POLE, ALASKA TO FUND PRELIMINARY INVESTIGATIONS AND DESIGN FOR THE REPALCEMENT OF STEEL WATER MAINS

WHEREAS, changes to practices and policies is a continually changing requirement; and,

WHEREAS, the City of North Pole budget should be amended to conform to the requirements of the City; and,

WHEREAS, adjustment in the budget are necessary to remain compliant with Council approved authorizations and budget management rules, and

WHEREAS, fiscal notes are the method prescribed by the code to amend a budget; and,

WHEREAS, fiscal notes have been reviewed by the Accountant and Mayor for accuracy and will be recorded as amendments to the budget upon approval,

NOW, THEREFORE, BE IT ORDAINED by the Council of the City of North Pole that it approves changes as listed in the attached fiscal note to pay for services to be provided by Stantec Consulting totaling $230,039.80 for the preliminary investigations and 35% design documents for the replacement of steel water mains.

Section 1. This ordinance is of a general nature and shall not be codified.

Section. Effective date.
This ordinance shall become effective immediately upon passage.

PASSED AND ADVANCED by a duly constituted quorum of the North Pole City Council this 7th day of March 2021.

_____
Michael W. Welch, Mayor

ATTEST:

_____
Melissa Dionne, North Pole City Clerk

PASSED/FAILED
Yes:
No:
Absent:

City of North Pole, Alaska

Fiscal Note Year:

Accompanying Ordinance/Resolution: 22-04

Originator/sponsor: William Butler

Date: February 17, 2022

Does the Ordinance or Resolution have a fiscal impact? ☒ **YES** ☐ **NO**

FUND	Account Description	Account #	Debit	Credit
Water Reserve	Transfer out to Water Fund	51-10-9-999	230,000	
Water Fund	Transfer in from Water Fund	41-39-9990		230,000
Water Fund	Transfer in	41-39-9990	230,000	
Water Fund	Professional Services	41-10-2-235		230,000

Summary: Approximately 21,000 feet of steel water mains installed in the 1970 in the core of the City are corroding and beginning to fail. Before there is a catastrophic failure of the water mains they need to be replaced. This project will begin the initial steps in designing and engineering the replacement of the mains and will generate a cost estimate for the replacement of the mains.

Prepared by: William Butler Date: 2/17/2022

Signature William Butler

Financial approval: Michelle Peede Date: 2/17/2022

Signature Michelle Peede

NOTE: Fiscal notes attached to an ordinance are considered amendments to the budget and do not require an additional approval for insertion into the budget document.

Stantec Consulting Services Inc.
725 East Fireweed Lane Suite 200, Anchorage AK 99503-2245

February 4, 2022

Attention: Bill Butler
Director of City Services
City of North Pole
125 Snowman Lane
North Pole, AK 99705

Project: City of North Pole - Replace Steel Water Mains
Subject: Professional Services Proposal

Dear Mr. Butler,

Stantec Consulting Services Inc. (Stantec) is pleased to provide the City of North Pole (CONP, City) this proposal to provide professional services for the subject project. Our understanding of the project and our proposal is as follows:

Background

The "Downtown" portion of the North Pole public water system generally bounded between Holiday Road and Davis Boulevard (west – east), and 8th Avenue and Park Way (south – north) was constructed between 1971-1974 using 6-inch diameter, light weight, 10-gauge steel piping (about 1/8" thick). The piping was largely protected from corrosion by the external insulation and jacket, but is now nearly 50 years old, and in poor condition. Pipe condition was examined during the 2014 Water System improvement project. The pipe was found to be suffering from internal and external corrosion that had perforated some of the pipe segments. The earlier 2005 Utility Analysis reported that up to 40% of the City's water production was unaccounted for (i.e., lost or leaking), and suggested that most of the water loss was likely occurring in the Downtown area.

The City is concerned about system reliability, and potential for wholesale failure of the compromised water mains. The City seeks to replace the end-of-life piping with new water mains constructed in accordance with current CONP standards and current best practices.

Scope

The overall objective of the project is to remove and replace approximately 21,500 linear feet of steel water main with new pipe. This is an approximate quantity and will be refined during design. The attached figure indicates the general locations of the pipe to be replaced. Only the steel water mains are to be replaced; other pipe in the project area is newer and not included. Also, the 2014 Water System project previously replaced small segments of the steel pipe; that prior construction will be retained to the extent possible.

To facilitate construction in and adjacent to City streets and residences, the new piping will most likely be ductile iron pipe (DIP), however high-density polyethylene (HDPE) will be considered where feasible.

Existing pipe ranges in size from 4 to 8-inch diameter. The new water mains will likely all be standardized on 8-inch diameter; however, the City will be consulted in the event that capacity or fire protection upgrades are warranted.

Water services are currently of the "pitorifice" type, no longer allowed under the CONP's water service standards. The City will be consulted as to whether pitorifice water services will be retained, or if the project will require upgrade to the service connections (typically, installation of a circulating pump adjacent the water meters).

To complete this work, Stantec proposes the following tasks:

Investigations

Following confirmation of the project requirements, Stantec will review record drawings, GIS maps, and other available information provided by CONP, and as can be obtained from Fairbanks North Star Borough (FNSB) and the local utility companies.

Stantec will establish survey control and perform topographic survey of the water main locations and adjacent roads. Survey will be focused on existing improvements such as drainage, pavements, driveways, etc., and visible utility features such as valve boxes, manholes, etc. The survey will be combined with FNSB GIS data, including orthophotos, and utility company maps where available to form the basis (the "background") for the project drawings.

Stantec will not be performing or surveying underground utility locates. Survey will be sufficient to indicate property lines to the extent needed for construction (approx. plus or minus 1-foot), but Stantec is not performing property, boundary, or easement surveys.

Once the survey is complete, the project team will complete a visual examination of the project area and finalize the topographic maps.

Shannon and Wilson Inc (S&W), under subcontract to Stantec, will develop a geotechnical report for the project area. The report will provide a general review of soil conditions, water table, and dewatering expectations, and recommendations for trench excavations, backfill, and restoration of roadways. S&W will base the report on their prior work and knowledge of the project area; no new or additional soil borings or explorations will be performed.

35% Concept Design, Design Report

Once the survey is complete, Stantec will prepare a design report detailing the findings, existing conditions, and recommendations for the project. The report will include concept drawings at approximately 35% level of completion illustrating the proposed locations for the new water mains, points of connection, and potential conflicts.

The purpose of the design report is to identify and resolve project constraints and questions, including those items listed in the scope section above. The design report also forms the basis for the engineering narrative required for the ADEC permit application.

The design report will include discussion of construction phasing and / or temporary water requirements necessary to maintain service to the adjacent properties.

An estimate of probable construction cost (cost estimate) will be provided with this submittal.

Subsequent submittals do not include design reports. Stantec will only revise the design report if necessary to document design changes for the ADEC permit application.

Following submittal of the 35% report and drawings, CONP will review the project, return comments, and / or schedule a review conference with Stantec. The review conference will be held electronically via MS Teams or similar.

After agreement on a design concept, Stantec will proceed with the 65% design development as directed by CONP.

65%, 95%, 100% Final Design & ADEC Permit

Stantec will prepare construction plans, specifications, and cost estimates for the project. A total of three submittals will be provided at approximately 65%, 95% and 100% (final) levels of design completion.

Drawings will include general construction requirements, layout plans, survey control, water main plan and profile drawings, trench sections, typical and special details, and restoration requirements.

Specifications will be CSI format, consistent with CONP construction standards, and current best practices as Stantec may recommend.

The 65% specification will only include the technical specifications (Div. 1 – 50). 95% and final submittals will include Div. 0, CONP procurement boilerplate, bid schedules, and EJCDC construction contract general conditions and special provisions.

Construction cost estimates will be provided with each submittal. Note: the cost estimate will be a line-item estimate matching the bid schedule; it will not be a CSI format estimate by spec section. Estimates will include typical estimating and design contingencies, and may include allowances for inflation, however CONP agrees that Stantec has no control over inflation, the construction marketplace at the time of bidding, or fluctuation in material and labor costs.

Following each submittal, CONP will review the project, return comments, and / or schedule a review conference to be held electronically via MS Teams or similar.

Each project submittal will address review comments from the previous phase.

The 100% project submittal will address review comments received on the prior submittals. Stantec professional engineers will then sign and stamp the drawings. Final drawings will be sufficient to permit, bid, and construct the project.

ADEC Permitting

Stantec will prepare the ADEC Approval to Construct application for the project, consisting of a set of stamped project drawings, the design report, and a set of the ADEC application checklists. Specific schedule for permit applications will depend on CONP's intended construction schedule. Typically, Stantec submits permit applications after completing the 95% submittal, but we can submit at the 65% level if warranted by project schedule or funding needs.

Stantec has included payment of the ADEC permit fee in our budget.

Actual schedule for approval of permits will be subject to ADEC's workload at time application is made and Stantec cannot guarantee timely approval by the review agency.

Construction Support Services (T&M)

Construction support services includes the following sub-tasks:

- ### Bidding and Procurement Support

Stantec will provide Submittal Exchange share point with electronic plans room for solicitation of project bids and management of the construction files.

CONP will be responsible for all advertisement, City mandated legal notices, and solicitation of bids. (Stantec will assist with direct notification of previously pre-qualified bidders known to the City and Stantec).

Stantec will attend the pre-proposal conference, as well as provide responses to proposer's questions through issuance of addendums during the bid period.

CONP will receive and open bids; Stantec will review, evaluate, and provide recommendations to the city as may be needed.

- ### Administrative Support

Stantec will review submittals, shop drawings, requests for information (RFI), design clarification or variation requests (DCVR), change requests, pay requests, and other project correspondence, preparing responses as required. Stantec will maintain project files and logs on behalf of CONP. This will be done electronically using the Submittal Exchange share point service. CONP will receive a complete copy of the project files, electronically, after construction.

- ### Meetings

Stantec staff will participate in various meetings throughout the construction, to include the pre-construction conference and weekly progress meetings. Weekly meetings will be jointly planned and conducted in conjunction and cooperation with the construction contractor. The agenda will include updates on progress, schedule, materials procurement, and other topics germane to schedule performance. Stantec staff in Fairbanks will likely attend in person, while Anchorage staff will attend via teleconference or MS Teams, with limited in person attendance.

- ### Construction Inspections

Stantec will provide staff during construction to administer the terms of CONP's construction contract ("contract administration, CA"), and as necessary to verify compliance with project documents for ADEC purposes. We are estimating a construction duration of 9 to 12 months, with most of the physical work occurring over 5 to 6 months. The budget provides for one full time inspector during a 6-month period, with some supervisor and project management oversite.

Inspection staff will maintain daily project records and reports, provided to CONP on a weekly basis. Reports will be cataloged via Submittal Exchange and include photo and written documentation of Contractor's efforts and progress, including review of project successes, defects, and corrective actions. The staff will attend and assist with facilitating weekly construction meetings with the Contractor, and perform substantial and final inspections, and commissioning and start up support. The staff will observe and witness compliance inspections, such as water main flushing, pressure testing,

and disinfection; and will review construction Record Drawings submitted by the Contractor for completeness and accuracy prior to transposing to CAD and certifying them for submission to ADEC.

Stantec will not provide materials testing; this has been assigned to the Construction Contractor as part of the construction quality control requirements; however, Stantec will provide quality assurance (QA), verifying that the Contractor is performing the required tests, and that results comply with project requirements. The CONP does have the authority and ability to perform independent materials testing if so desired; Stantec can provide this service on an as-needed basis as time and materials (T&M), or the CONP may have this service provided independently.

- ### Public Involvement

Stantec will support limited public involvement support during construction. We envision this consisting of incidental contact with property owners during construction, and related interactions with the public, primarily on the job site. Stantec will not be the primary point of contact for the public; this will be the responsibility of the Construction contractor.

- ### Easement and ROW Support

Stantec is not providing easement or ROW support services at this time. Should these services be necessary during design or construction, Stantec will advise CONP, and negotiate an appropriate scope and budget amendment.

- ### Record Drawings

Stantec will prepare the project Record Drawings from the construction Contractor's "redline as-builts" and survey notes. Stantec will review the Contractor's submitted redlines for accuracy and completeness and transfer the information onto Record Drawings. These drawings will need to be certified by the Contractor and the Stantec engineer(s) for purposes of ADEC compliance and permit requirements. This task assumes modification of the original construction drawings based solely on contractor provided information and inspectors' observations. Record Drawings are not based on an "as-built" survey, and ADEC does not require one.

- ### ADEC Approval to Operate

Following construction of project elements as defined in the ADEC Approval to Construct, Stantec will develop and submit the requests for Interim and then final Approval to Operate. Given the need to maintain water service to existing customers, the interim approval requests are expected to occur in phases. We anticipate approximately 8 Interim and one Final request for approval.

Assumptions and/or Exclusions

Items not specifically included in the scope outlined herein are not part of the Stantec proposal. Where either Stantec or CONP identify additional work that may benefit the project, the work can be provided by amendment at current standard rates as CONP directs. The following clarifications are specifically noted:

- Stantec is not performing any soils explorations or hazardous materials investigations. We are not providing any contaminated sites permitting. However, Stantec will review the ADEC contaminated sites database and identify any nearby sites on the project drawings.
- Submittals will be electronic only, in PDF format, unless otherwise noted. Final record drawings will be provided in AutoCAD and PDF format via OneDrive or similar sharepoint.

- Design review meetings will be held via teleconference or video meeting.
- Submittals beyond those listed here in will require a budget amendment.
- Stantec is not providing stormwater SWPPP, contaminated site, traffic control, safety, or temporary water plans. These will be the responsibility of the construction contractor.
- Stantec will not be designing or providing temporary or permanent water services for this project. Temporary services if needed will be the responsibility of the Contractor. Water service modifications, if necessary, will be in accordance with current CONP standards.
- Stantec will be administering CONP's construction contract. We will not be managing the Contractor or their forces.
- While Stantec can and will direct the Contractor as to compliance with the Contract, including identifying and requiring correction of defective work, Stantec has no authority to direct Contract changes that result in schedule or cost impact. This authority is reserved to the CONP. Stantec will prepare change orders as requested by the City.
- Stantec is not responsible for job site safety. While our staff will conduct our operations in accordance with Stantec Safe Work Practices, the Contractor is solely responsible for job site safety. Stantec may identify unsafe practices and hazards readily observable in the Contractor's operations, to include stop work notices if warranted, but Stantec is not responsible for Contractor's failure to provide a safe work site.
- Other miscellaneous items of work not specifically included in the tasks outlined herein are not part of our proposal. Where either Stantec or CONP identifies additional work that may be beneficial to the project, it can be provided by amendment at contract rates as CONP directs.
- Construction is expected to be initiated starting on about March 1, 2023, with most physical construction completed by October 30, 2023, and final cleanup and restoration in spring of 2024. Extension of the construction period or duration may require amendment of contract scope and fees.

Schedule

Project schedule has not been developed at this time. For a project of this magnitude a 6-to-9-month duration is typical. Stantec will work with the City to establish an appropriate schedule upon execution of the professional services agreement. The schedule can be updated as work progresses if necessary.

A specific consideration is the topographic survey. This is best done in late April or during May once snowmelt has occurred.

As we are all aware, these are unprecedented times as a result of the COVID-19 pandemic. The situation is fluid and the Stantec proposal is based on what we understand as of today. Plans and schedules will be further discussed with the project manager to help mitigate the impact of this evolving situation on the CONP project.

Reference: **City of North Pole - Replace Steel Water Mains**

Fee

Investigations, design, and permitting tasks will be performed on a lump sum basis. Construction support services will be time and materials (T&M) basis.

Fee Summary:

Investigations	$	144,883.80
35% Concept Design, Design Report	$	85,156.00
65% Design	$	111,042.00
95% Design	$	93,192.00
100% Design	$	35,910.00
Permitting	$	26,220.00
Construction Support Services (T&M)	$	412,786.00
Totals	**$**	**909,189.80**

A detailed breakdown of the fee is attached. All work will be performed in accordance with terms of a Professional Services Agreement to be mutually agreed upon and executed by Stantec and CONP, as dated_____TBD_____. The project will be invoiced monthly on a percent complete basis. T&M services will be invoiced at the standard Stantec rates in effect at the time services are performed.

Closure

We appreciate this opportunity to assist CONP with your water main replacement project, and we look forward to working with you for its successful completion.

I will be the project manager and point of contact for this project. My contact information is provided below. As a Senior Principal, I have authority to bind the firm in this matter. If you have any questions or would like to discuss the scope of work or fee, please contact either me at my phone number below, or Stephanie Scheevel at (907) 343-5235, stephanie.scheevel@stantec.com.

Thank you,

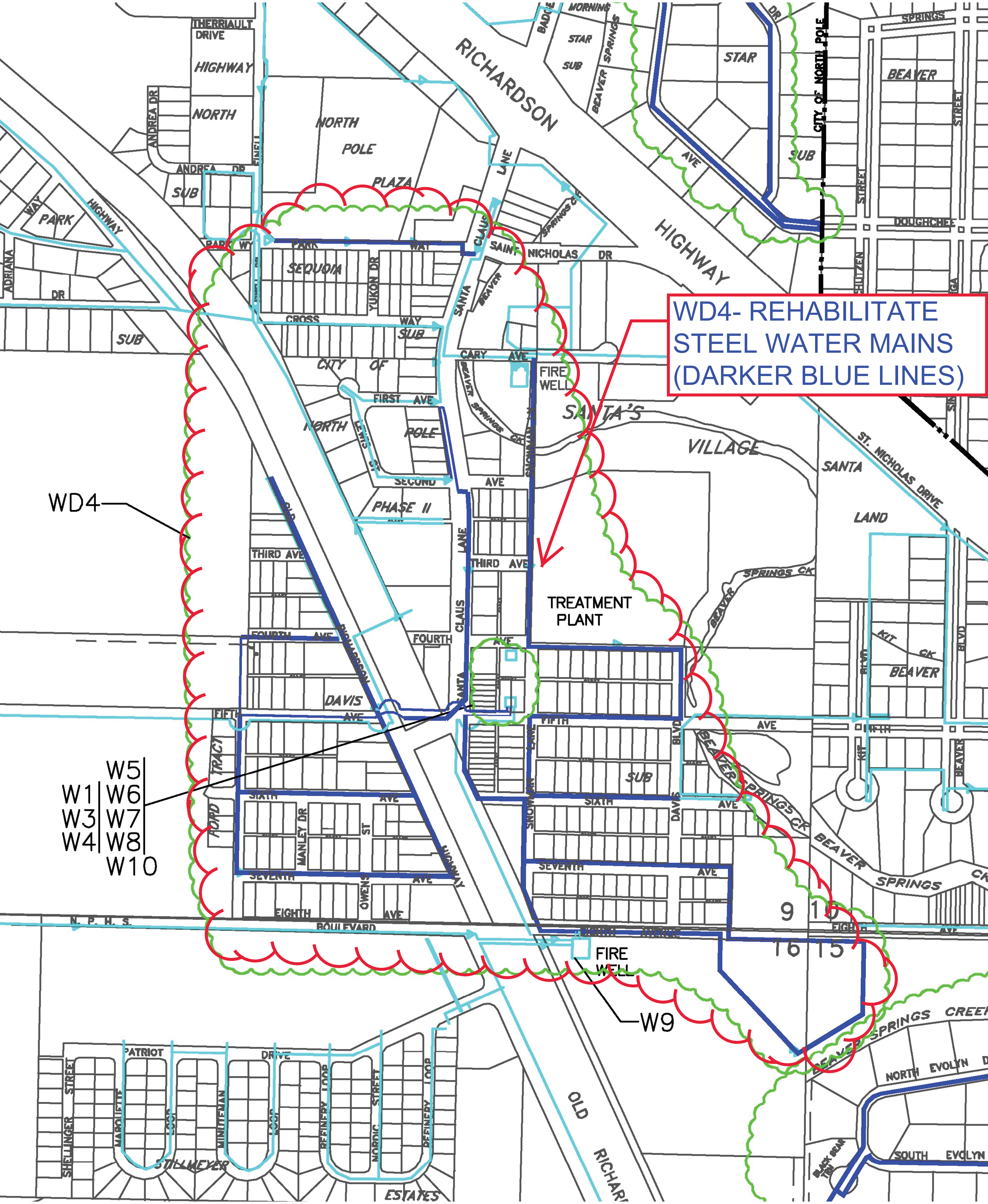
Stantec Consulting Services Inc.

Dean E. Syta PE
Senior Principal
Phone: 907-229-2985
Fax: 907-258-4653
dean.syta@stantec.com

Attachment: Fee Proposal Worksheet, Exhibits

c. file

DES https://stantec-my.sharepoint.com/personal/dean_syta_stantec_com/documents/desktop/north pole water/water system/conp replace steel water mains sow 02042022 dsyta.docx


WD4- REHABILITATE
STEEL WATER MAINS
(DARKER BLUE LINES)
WD4
W5
W1 W6
W3 W7
W4 W8
W10
W9
FIRE WELL
FIRE WELL
TREATMENT PLANT
RICHARDSON
HIGHWAY
OLD RICHARDSON HIGHWAY
CITY OF NORTH POLE
NORTH POLE PLAZA
HIGHWAY NORTH SUB
ANDREA DR
PARK WAY
SEQUOIA
YUKON DR
CROSS WAY SUB
CITY OF NORTH POLE PHASE II
FIRST AVE
SECOND AVE
THIRD AVE
FOURTH AVE
FIFTH AVE
SIXTH AVE
SEVENTH AVE
EIGHTH AVE
DAVIS
SANTA CLAUS LANE
SAINT NICHOLAS DR
CARY AVE
SNOWMAN LANE
SANTA'S VILLAGE
SANTA LAND
ST. NICHOLAS DRIVE
BEAVER SPRINGS CK
BEAVER SPRINGS CREEK
KIT CK
STAR SUB
DOUGHCHEE
MANLEY DR
OWENS ST
FORD TRACT
N. P. H. S. BOULEVARD
PATRIOT DRIVE
STILLMEYER ESTATES
NORTH EVOLYN
SOUTH EVOLYN
9 10
16 15

Untitled Map

Write a description for your map.

Legend

- Feature 1
- McDonald's
- North Pole
- North Pole
- North Pole Alehouse
- Safeway

Safeway
McDonald's
Santa Claus House
North Pole Elementary School
North Pole
E 5th Ave
E 5th Ave
North Pole Alehouse
North Pole Middle School
North Pole High School
Richardson Hwy
Old Richardson Hwy
S Santa Claus Ln
Mission Rd
Glass Doctor o
N
1000 ft
Google Earth
Image © 2022 Maxar Technologies

725 East Fireweed Lane, Suite 200
Anchorage, AK 99503
Fee Estimate
Prepared by: Dean Syta

Replace Steel Water Mains - North Pole Alaska
City of North Pole

February 4, 2021

Price Per Task Summary

Task	Task Name	Labor	Subcontracts	Expenses	Total	Notes
1	Investigations	$ 41,742.00	$ 102,307.00	$ 834.80	$ 144,883.80	
2	35% Concept Design	$ 84,856.00	$ -	$ 300.00	$ 85,156.00	
3	65% Design	$ 110,742.00	$ -	$ 300.00	$ 111,042.00	
4	95% Design	$ 92,992.00	$ -	$ 200.00	$ 93,192.00	
5	Final Design	$ 35,710.00	$ -	$ 200.00	$ 35,910.00	
6	Permitting	$ 19,820.00	$ -	$ 6,400.00	$ 26,220.00	
7	Construction Support	$ 391,686.00	$ -	$ 21,100.00	$ 412,786.00	
		$ 777,548.00	**$ 102,307.00**	**$ 29,334.80**	**$ 909,189.80**	

Notes/Assumptions

1 See proposal letter dated February 4, 2022.
2 Budget assumes survey and design in 2022, and construction start in 2023. If project start is delayed till later years, fee will be subject to adjustment and negotiation.

Fee Proposal
Replace Steel Water Mains - North Pole Alaska
City of North Pole
February 4, 2021

	Task 1: Investigations	Summary		Project Manager / PIC	Senior Civil Eng / ITR	Senior Civil Eng	Civil Eng.	Civil EIT / CADD	Civil EIT / CADD	Civil EIT / CADD	CADD	0	0	Admin	Admin	0	0	0	0	0	0
				Dean Syta	Stephanie S	Brian Miskill	Jake Alward	Moorhead	Petre	Hansmeyer	Hildalgo	0	0	Spicer	Dixon	0	0	0	0	0	0
Subtask #	Sub-Task Name	Line Hours	Line Cost	$243.00	$208.00	$243.00	$188.00	$154.00	$159.00	$164.00	$188.00	$0.00	$0.00	$144.00	$164.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
1	**Survey - Coordination, also see subcontracts**	**20.00**	**$3,708.00**	4			8	8													
2																					
3	**Geotech Report - Coordination. Also see subcontracts**	**20.00**	**$3,708.00**	4			8	8													
4																					
5	**Site Investigations**	**54.00**	**$8,750.00**	2			4	24	24												
6																					
7	**Mapping**																				
8	FNSB GIS	**32.00**	**$5,744.00**					8			24										
9	Underground Utility Research	**28.00**	**$4,940.00**	4			8	16													
10	Prepare base maps / drawings	**44.00**	**$7,796.00**	4			8		24		8										
11																					
12																					
13	**Client / Team Meetings**	**8.00**	**$1,488.00**	2			2	2	2												
14																					
15	**Project Management**	**28.00**	**$5,608.00**	8			16								4						
16																					
17																					
18																					
	Labor Hours	**234.00**		**28.00**	**0.00**	**0.00**	**54.00**	**66.00**	**50.00**	**0.00**	**32.00**	**0.00**	**0.00**	**0.00**	**4.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	Labor Subtotal		**$41,742.00**	**$6,804.00**	**$0.00**	**$0.00**	**$10,152.00**	**$10,164.00**	**$7,950.00**	**$0.00**	**$6,016.00**	**$0.00**	**$0.00**	**$0.00**	**$656.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**

TASK TOTALS

Direct Labor Cost	$41,742.00
Subcontract Expenses	$102,307.00
Other Direct Costs (ODCs)	$834.80
Total Cost	**$144,883.80**

SUBCONTRACT EXPENSES

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1	Stantec Surveying	1	LS	$78,382.00	$78,382.00
2	Shannon and Wilson Geotech Report	1	LS	$23,925.00	$23,925.00
				Travel Subtotal	**$102,307.00**

OTHER DIRECT COSTS (ODCs)

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1	Printing Allowance	1	LS	$300.00	$300.00
2	Air Travel	0	ea	$350.00	$0.00
3	Lodging and Per Diem	0	days	$250.00	$0.00
4	Rental Car	0	days	$200.00	$0.00
5	Mileage	60	miles	$0.58	$34.80
6	FNSB GIS Fees	1	LS	$500.00	$500.00
				Expenses Subtotal	**$834.80**

Stantec

Fee Proposal
Replace Steel Water Mains - North F
City of North Pole
February 4, 2021

	Task 2: 35% Concept Design	Summary		Project Manager / PIC	Senior Civil Eng / ITR	Senior Civil Eng	Civil Eng.	Civil EIT / CADD	Civil EIT / CADD	Civil EIT / CADD	CADD	0	0	Admin	Admin	0	0	0	0	0	0
				Dean Syta	Stephanie S	Brian Miskill	Jake Alward	Moorhead	Petre	Hansmeyer	Hildalgo	0	0	Spicer	Dixon	0	0	0	0	0	0
Subtask #	Sub-Task Name	Line Hours	Line Cost	$243.00	$208.00	$243.00	$188.00	$154.00	$159.00	$164.00	$188.00	$0.00	$0.00	$144.00	$164.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
1	**Design Analysis Report**																				
2	Narrative	**80.00**	**$14,360.00**	8	8		24	32							8						
3	Figures, Appendics	**28.00**	**$5,020.00**	4			8		16												
4	Computations	**36.00**	**$7,428.00**	4		8	24														
5																					
6																					
7	**Concept Drawings**																				
8	General	**32.00**	**$5,992.00**	8			8		16												
9	Plan and Profile (24 drawings)	**180.00**	**$30,360.00**	16			24	60	80												
10																					
11																					
12	**Construction Cost Esttimate**	**38.00**	**$6,658.00**	6			8	24													
13																					
14	**Client and Team Meetings**	**22.00**	**$4,334.00**	6		2	6	4	2						2						
15																					
16	**Quality Control**	**20.00**	**$4,440.00**	4	12	4															
17																					
18	**Project Management**	**32.00**	**$6,264.00**	8			16								8						
19																					
20																					
21																					
	Labor Hours	**468.00**		**64.00**	**20.00**	**14.00**	**118.00**	**120.00**	**114.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**18.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	Labor Subtotal		**$84,856.00**	**$15,552.00**	**$4,160.00**	**$3,402.00**	**$22,184.00**	**$18,480.00**	**$18,126.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$2,952.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**

TASK TOTALS

Direct Labor Cost	$84,856.00
Subcontract Expenses	$0.00
Other Direct Costs (ODCs)	$300.00
Total Cost	**$85,156.00**

SUBCONTRACT EXPENSES

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1					$0.00
2					$0.00
3					$0.00
4					$0.00
5					$0.00
				Travel Subtotal	**$0.00**

OTHER DIRECT COSTS (ODCs)

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1	Printing Allowance	1	LS	$300.00	$300.00
2					$0.00
3					$0.00
4					$0.00
5					$0.00
				Expenses Subtotal	**$300.00**

Stantec

Fee Proposal
Replace Steel Water Mains - North Pole Alaska
City of North Pole
February 4, 2021

	Task 3: 65% Design	Summary		Project Manager / PIC	Senior Civil Eng / ITR	Senior Civil Eng	Civil Eng.	Civil EIT / CADD	Civil EIT / CADD	Civil EIT / CADD	CADD	0	0	Admin	Admin	0	0	0	0	0	0
				Dean Syta	Stephanie S	Brian Miskill	Jake Alward	Moorhead	Petre	Hansmeyer	Hildalgo	0	0	Spicer	Dixon	0	0	0	0	0	0
Subtask #	Sub-Task Name	Line Hours	Line Cost	$243.00	$208.00	$243.00	$188.00	$154.00	$159.00	$164.00	$188.00	$0.00	$0.00	$144.00	$164.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
1	**Drawings**																				
2	General (4 dwgs)	**44.00**	**$7,840.00**	8			8	12	16												
3	Plan and Profile (24 Drawings)	**324.00**	**$56,032.00**	24			60	80	120		40										
4	Typical Sectons (1 or 2 dwgs)	**32.00**	**$6,100.00**	4			8	4			16										
5	Details (4-5 dwgs)	**36.00**	**$7,072.00**	8			8	4			16										
6																					
7	**Specifications**																				
8	Tech specs only	**44.00**	**$8,468.00**	8		4	16	8							8						
9																					
10	**Cost Estimate**	**28.00**	**$4,940.00**	4			8	16													
11																					
12																					
13	**Client and Team Meetings**	**22.00**	**$4,334.00**	6		2	6	4	2						2						
14																					
15	**Quality Control**	**32.00**	**$7,216.00**	8	16	8															
16																					
17	**Project Management**	**44.00**	**$8,740.00**	12			24								8						
18																					
19																					
	Labor Hours	**606.00**		**82.00**	**16.00**	**14.00**	**138.00**	**128.00**	**138.00**	**0.00**	**72.00**	**0.00**	**0.00**	**0.00**	**18.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	Labor Subtotal		**$110,742.00**	**$19,926.00**	**$3,328.00**	**$3,402.00**	**$25,944.00**	**$19,712.00**	**$21,942.00**	**$0.00**	**$13,536.00**	**$0.00**	**$0.00**	**$0.00**	**$2,952.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**

TASK TOTALS

Direct Labor Cost	$110,742.00
Subcontract Expenses	$0.00
Other Direct Costs (ODCs)	$300.00
Total Cost	**$111,042.00**

SUBCONTRACT EXPENSES

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1					$0.00
2					$0.00
3					$0.00
4					$0.00
5					$0.00
				Travel Subtotal	**$0.00**

OTHER DIRECT COSTS (ODCs)

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1	Printing Allowance	1	LS	$300.00	$300.00
2	Mileage		miles	$0.58	$0.00
3					$0.00
4					$0.00
5					$0.00
				Expenses Subtotal	**$300.00**

Stantec

Fee Proposal
Replace Steel Wate
City of North Pole
February 4, 2021

	Task 4: 95% Design	Summary		Project Manager / PIC	Senior Civil Eng / ITR	Senior Civil Eng	Civil Eng.	Civil EIT / CADD	Civil EIT / CADD	Civil EIT / CADD	CADD	0	0	Admin	Admin	0	0	0	0	0	0
				Dean Syta	Stephanie S	Brian Miskill	Jake Alward	Moorhead	Petre	Hansmeyer	Hildalgo	0	0	Spicer	Dixon	0	0	0	0	0	0
Subtask #	Sub-Task Name	Line Hours	Line Cost	$243.00	$208.00	$243.00	$188.00	$154.00	$159.00	$164.00	$188.00	$0.00	$0.00	$144.00	$164.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
1	**Drawings**																				
2	General	**34.00**	**$5,966.00**	6			4	12	12												
3	Plan and Profile	**236.00**	**$40,888.00**	16			40	60	80		40										
4	Typical Sectons	**14.00**	**$2,742.00**	2			4				8										
5	Details	**20.00**	**$3,980.00**	4			8				8										
6																					
7	**Specifications**																				
8	Bid Documents / Front End	**36.00**	**$7,316.00**	12	4		12								8						
9	EJCDC Contract Docs	**20.00**	**$4,184.00**	8	4		4								4						
10	Technical Specs	**24.00**	**$4,540.00**	4			12								8						
11																					
12																					
13	**Cost Estimate**	**18.00**	**$3,086.00**	2			4	12													
14																					
15	**Client and Team Meetings**	**22.00**	**$4,334.00**	6		2	6	4	2						2						
16																					
17	**Quality Control**	**32.00**	**$7,216.00**	8	16	8															
18																					
19	**Project Management**	**44.00**	**$8,740.00**	12			24								8						
20																					
	Labor Hours	**500.00**		**80.00**	**24.00**	**10.00**	**118.00**	**88.00**	**94.00**	**0.00**	**56.00**	**0.00**	**0.00**	**0.00**	**30.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	Labor Subtotal		**$92,992.00**	**$19,440.00**	**$4,992.00**	**$2,430.00**	**$22,184.00**	**$13,552.00**	**$14,946.00**	**$0.00**	**$10,528.00**	**$0.00**	**$0.00**	**$0.00**	**$4,920.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**

TASK TOTALS

Direct Labor Cost	$92,992.00
Subcontract Expenses	$0.00
Other Direct Costs (ODCs)	$200.00
Total Cost	**$93,192.00**

SUBCONTRACT EXPENSES

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1					$0.00
2					$0.00
3					$0.00
4					$0.00
5					$0.00
				Travel Subtotal	**$0.00**

OTHER DIRECT COSTS (ODCs)

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1	Printing Allowance	1	LS	$200.00	$200.00
2	Mileage		miles	$0.58	$0.00
3					$0.00
4					$0.00
5					$0.00
				Expenses Subtotal	**$200.00**

Fee Proposal
Replace Steel Water Mains - North Pole Alaska
City of North Pole
February 4, 2021

	Task 5: Final Design	Summary		Project Manager / PIC	Senior Civil Eng / ITR	Senior Civil Eng	Civil Eng.	Civil EIT / CADD	Civil EIT / CADD	Civil EIT / CADD	CADD	0	0	Admin	Admin	0	0	0	0	0	0
				Dean Syta	Stephanie S	Brian Miskill	Jake Alward	Moorhead	Petre	Hansmeyer	Hildalgo	0	0	Spicer	Dixon	0	0	0	0	0	0
Subtask #	Sub-Task Name	Line Hours	Line Cost	$243.00	$208.00	$243.00	$188.00	$154.00	$159.00	$164.00	$188.00	$0.00	$0.00	$144.00	$164.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
1	Finalize Drawings	80.00	$14,200.00	8			16	24	16		16										
2																					
3	Finalize Specifications / Bid Manual	40.00	$7,892.00	12			16								12						
4																					
5	Client and Team Meetings	14.00	$2,678.00	4			4	2	2						2						
6																					
7	Quality Control	28.00	$6,084.00	8	8	4	8														
8																					
9	Project Management	24.00	$4,856.00	8			12								4						
10																					
11																					
12																					
13																					
14																					
	Labor Hours	186.00		40.00	8.00	4.00	56.00	26.00	18.00	0.00	16.00	0.00	0.00	0.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00
	Labor Subtotal		$35,710.00	$9,720.00	$1,664.00	$972.00	$10,528.00	$4,004.00	$2,862.00	$0.00	$3,008.00	$0.00	$0.00	$0.00	$2,952.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

TASK TOTALS

Direct Labor Cost	$35,710.00
Subcontract Expenses	$0.00
Other Direct Costs (ODCs)	$200.00
Total Cost	**$35,910.00**

SUBCONTRACT EXPENSES

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1					$0.00
2					$0.00
3					$0.00
4					$0.00
5					$0.00
				Travel Subtotal	$0.00

OTHER DIRECT COSTS (ODCs)

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1	Printing Allowance	1	LS	$200.00	$200.00
2	Mileage		miles	$0.58	$0.00
3					$0.00
4					$0.00
5					$0.00
				Expenses Subtotal	$200.00

Fee Proposal
Replace Steel Water Mains - North Pole Alaska
City of North Pole
February 4, 2021

	Task 6: Permitting	Summary		Project Manager / PIC	Senior Civil Eng / ITR	Senior Civil Eng	Civil Eng.	Civil EIT / CADD	Civil EIT / CADD	Civil EIT / CADD	CADD	0	0	Admin	Admin	0	0	0	0	0	0
				Dean Syta	Stephanie S	Brian Miskill	Jake Alward	Moorhead	Petre	Hansmeyer	Hildalgo	0	0	Spicer	Dixon	0	0	0	0	0	0
Subtask #	Sub-Task Name	Line Hours	Line Cost	$243.00	$208.00	$243.00	$188.00	$154.00	$159.00	$164.00	$188.00	$0.00	$0.00	$144.00	$164.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
1	**ADEC Permitting**																				
2																					
3	Update Engineering Narrative	**20.00**	**$3,708.00**	4			8	8													
4	ADEC Checklists	**24.00**	**$4,324.00**	4			8	12													
5	Assemble Plan Review / Approval to Construct Application	**20.00**	**$3,652.00**	4			4		8						4						
6																					
7																					
8	Address ADEC Review Comments	**16.00**	**$3,448.00**	8			8														
9																					
10																					
11	**Quality Control**	**12.00**	**$2,636.00**	4	8																
12																					
13	**Project Management**	**10.00**	**$2,052.00**	4			4								2						
14																					
15																					
16																					
	Labor Hours	**102.00**		**28.00**	**8.00**	**0.00**	**32.00**	**20.00**	**8.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**6.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	Labor Subtotal		**$19,820.00**	**$6,804.00**	**$1,664.00**	**$0.00**	**$6,016.00**	**$3,080.00**	**$1,272.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$984.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**

TASK TOTALS

Direct Labor Cost	$19,820.00
Subcontract Expenses	$0.00
Other Direct Costs (ODCs)	$6,400.00
Total Cost	**$26,220.00**

SUBCONTRACT EXPENSES

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1					$0.00
2					$0.00
3					$0.00
4					$0.00
5					$0.00
				Travel Subtotal	**$0.00**

OTHER DIRECT COSTS (ODCs)

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1	Printing Allowance	1	LS	$200.00	$200.00
2	Mileage		miles	$0.58	$0.00
3	ADEC Permit Fees	1	LS	$6,200.00	$6,200.00
4	based on 20,000 lf total and six waivers				$0.00
5					$0.00
				Expenses Subtotal	**$6,400.00**

Fee Proposal
Replace Steel Water Mains - North Pole Alaska
City of North Pole
February 4, 2021

	Task 7: Construction Support	Summary		Project Manager / PIC	Senior Civil Eng / ITR	Senior Civil Eng	Civil Eng.	Civil EIT / CADD	Civil EIT / CADD	Civil EIT / CADD	CADD	0	0	Admin	Admin	0	0	0	0	0	0
				Dean Syta	Stephanie S	Brian Miskill	Jake Alward	Moorhead	Petre	Hansmeyer	Hildalgo	0	0	Spicer	Dixon	0	0	0	0	0	0
Subtask #	Sub-Task Name	Line Hours	Line Cost	$243.00	$208.00	$243.00	$188.00	$154.00	$159.00	$164.00	$188.00	$0.00	$0.00	$144.00	$164.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
1	**Bidding Services**																				
2	Solict Bids	**4.00**	**$972.00**	4																	
3	Pre Bid Meeting	**10.00**	**$1,854.00**	2			4	4													
4	Bidder Questions / Addendum	**24.00**	**$4,364.00**	4			8	8							4						
5																					
6	**Administration**																				
7	Submittal reviews	**56.00**	**$10,232.00**	8			24	16							8						
8	DCVRs & RFI	**72.00**	**$12,968.00**	8			24	24			8				8						
9	Misc. Correspondence	**28.00**	**$5,608.00**	8			16								4						
10	Change orders	**32.00**	**$6,184.00**	8			16	8													
11	Pay Estimates	**64.00**	**$11,384.00**	8			24	32													
12																					
13	**Construction Meetings - 6 Months**	**192.00**	**$35,136.00**	32			80	80				Assumes 6 months const, 2 hour / week plus follow up									
14																					
15	**Inspections and Reports**																				
16	Daily Surveillance	**1,160.00**	**$179,640.00**					960	200			Assumes 6 months const, 6 days / week = 145 days. 8 hours day including field reports									
17	Oversight	**320.00**	**$62,360.00**	40			280														
18																					
19	**Record Drawings**	**112.00**	**$20,736.00**	16	8		40	40			8										
20																					
21	**ADEC Approvals to Operate**	**96.00**	**$17,568.00**	16			40	40				6 interm, 1 final									
22																					
23	**Project Management**	**112.00**	**$22,680.00**	40			48								24						
	Labor Hours	**2,282.00**		**194.00**	**8.00**	**0.00**	**604.00**	**1,212.00**	**200.00**	**0.00**	**16.00**	**0.00**	**0.00**	**0.00**	**48.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	Labor Subtotal		**$391,686.00**	**$47,142.00**	**$1,664.00**	**$0.00**	**$113,552.00**	**$186,648.00**	**$31,800.00**	**$0.00**	**$3,008.00**	**$0.00**	**$0.00**	**$0.00**	**$7,872.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**

TASK TOTALS

Direct Labor Cost	$391,686.00
Subcontract Expenses	$0.00
Other Direct Costs (ODCs)	$21,100.00
Total Cost	**$412,786.00**

SUBCONTRACT EXPENSES

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1					$0.00
2					$0.00
3					$0.00
4					$0.00
				Travel Subtotal	**$0.00**

OTHER DIRECT COSTS (ODCs)

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1	Printing Allowance	1	ls	$500.00	$500.00
2	Air Travel	5	ea	$350.00	$1,750.00
3	Lodging and Per Diem	10	days	$250.00	$2,500.00
4	Rental Car	10	days	$150.00	$1,500.00
5	Submittal Exchange Service	1	LS	$14,850.00	$14,850.00
				Expenses Subtotal	**$21,100.00**

725 East Fireweed Lane, Suite 200
Anchorage, Alaska 99503
Fee Estimate for Professional Services
Prepared by: D. Cimmiyotti

Survey Fee Worksheet - Included Within Task 1 Investigations

204700000
North Pole Water Mains
City of North Pole
Feb 01, 2022

LABOR HOURS PER JOB CLASSIFICATION

Survey Group: 0 Task: 1		Senior Engineer	Survey Manager	Senior Surveyor II	Senior Surveyor I	Surveyor II	Surveyor I	Survey Designer / Technician II	Survey Designer / Technician I	Survey Student Intern	Regular		Overtime		Admin / Clerical	Other
											1-Person Survey Crew	2-Person Survey Crew	1-Person Survey Crew	2-Person Survey Crew		
Sub-Task		$210.00	$208.00	$198.00	$181.00	$159.00	$125.00	$148.00	$126.00	$60.00	$185.00	$295.00	$277.00	$400.00	$100.00	$0.00
1	Mobilization/Prep		2	4		4						16				
	H & V Control Tie/TBM's		2									16		4		
2	Topo Survey		6									56		14		
	Valves/Storm Drains/Water Mains		2			8						24		12		
3	Property Ties/Integrate FNSB Data		2			8						8		2		
	A/G Utilities					2						16		4		
4																
5	Data Processing		2			8										
6	Drafting		4			24										
7	SCD		2			12										
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
Total Labor Hours		0	22	4	0	66	0	0	0	0	0	136	0	36	0	0
Labor Costs Subtotal		$0.00	$4,576.00	$792.00	$0.00	$10,494.00	$0.00	$0.00	$0.00	$0.00	$0.00	$40,120.00	$0.00	$14,400.00	$0.00	$0.00

SUBCONTRACTORS

Firm	Amount
Subtotal	$0
Markup	0%
Subcontractors Subtotal	$0

EXPENSES

Sub-Task No.	Item (s)	Quantity	Unit Price	Total Price
		0	0.00	0.00
	Lodging	30	200.00	6,000.00
	Per Diem	30	60.00	1,800.00
	Misc/Fuel	1	200.00	200.00
		0	0.00	0.00
		0	0.00	0.00
				0.00
				0.00
Expenses Subtotal				$8,000

COMMENTS

TOTALS

Payment Method	FP
Direct Cost or Fixed Price	$70,382
IDCR *(CPFF Only)*	N/A
Total Indirect Cost *(CPFF Only)*	N/A
Total Subcontracts	$0
Total Expenses	$8,000
Total Cost (excluding fee)	$78,382

** Labor Rates shall be direct labor (base pay) only if Method of Payment is CPFF; otherwise, Labor Rates shall be total rates.* ***Example:*** *Base pay + benefits + overhead + profit*

125 Snowman Lane
North Pole, Alaska 99705
(907) 488-8593
(907) 488-3002 (fax)
bill.butler@northpolealaska.org

City of North Pole
Director of City Services

Memo

To: North Pole City Council

From: Bill Butler

Date: February 17, 2022

Subject: Funding to Update Water and Sewer Construction Standards

---

The City last updated its Water and Sewer Construction Standards in 2007. The Construction Standards are used by developers when they want to install water and sewer utility infrastructure that would be turned over to the City for ownership, operation and maintenance. As with any construction activity industry standards, best practices and materials change with innovations and experience. The North Pole Expansion demonstrated that HDPE pipe is a viable alternative to ductile iron pipe in many instances and depending upon market conditions it can be a more cost-effective alternative for developers and the City. Beginning in 2009, the Utility totally redesigned the controls used in sewer lift stations to take advantage of innovations in electronic controls and the availability of high-speed cellular communication networks. None of these modifications are part of the Construction Standards.

I requested Stantec Consulting submit a proposal for the update of the Construction standards based upon their performance updating the City of North Pole Service Line Requirements for Water and Wastewater--Commercial and Residential Structures. There was a need to update the Service Line Standards related to water services as part of the North Pole Water System Expansion. That effort cost $47,600 and did not include any work on the sewer service line standards or Construction Standards. Stantec's proposal to update the Water and Sewer Construction Standards totals $116,354.80. A copy of Stantec's proposal is attached.

Sponsored by: Mayor Michael W. Welch
Advanced: February 22, 2022

CITY OF NORTH POLE
ORDINANCE 22-05
AN ORDINANCE OF THE CITY OF NORTH POLE, ALASKA TO FUND UPDATING THE NORTH POLE UTILITY WATER AND SEWER STANDARDS OF CONSTRUCTION

WHEREAS, changes to practices and policies is a continually changing requirement; and,

WHEREAS, the City of North Pole budget should be amended to conform to the requirements of the City; and,

WHEREAS, adjustment in the budget are necessary to remain compliant with Council approved authorizations and budget management rules, and

WHEREAS, fiscal notes are the method prescribed by the code to amend a budget; and,

WHEREAS, fiscal notes have been reviewed by the Accountant and Mayor for accuracy and will be recorded as amendments to the budget upon approval,

NOW, THEREFORE, BE IT ORDAINED by the Council of the City of North Pole that it approves changes as listed in the attached fiscal note to pay for services to be provided by Stantec Consulting totaling $116,354.80 to update the Water and Sewer Standards of Construction.

Section 1. This ordinance is of a general nature and shall not be codified.

Section. Effective date.
This ordinance shall become effective immediately upon passage.

PASSED AND ADVANCED by a duly constituted quorum of the North Pole City Council this 7th day of March 2021.

_____
Michael W. Welch, Mayor

ATTEST:

_____
Melissa Dionne, North Pole City Clerk

PASSED/FAILED
Yes:
No:
Absent:

City of North Pole, Alaska

Fiscal Note Year: 2022

Accompanying Ordinance/Resolution: 22-05
Originator/sponsor: William Butler
Date: February 17, 2022

Does the Ordinance or Resolution have a fiscal impact? ☒ **YES** ☐ **NO**

FUND	Account Description	Account #	Debit	Credit
Water Reserve	Transfer out to Water Fund	51-10-9-999	58,200	
Sewer Reserve	Transfer out to Sewer Fund	52-12-9-999	58,200	
Water Fund	Transfer in from Water Reserves	41-39-9990		58,200
Sewer Fund	Transfer in from Sewer Reserves	42-39-9990		58,200
Water Fund	Transfer in	41-39-9990	58,200	
Water Fund	Professional Services	41-10-2-235		58,200
Sewer Fund	Transfer in	42-39-9990	58,200	
Sewer Fund	Professional Services	42-12-2-235		58,200

Summary: The City last updated its Water and Sewer Construction Standards in 2007. As with any construction activity industry standards, best practices and materials change with innovations and experience. The North Pole Expansion demonstrated that HDPE pipe is a viable alternative to ductile iron pipe in many instances. Beginning in 2009, the Utility totally redesigned the controls used in sewer lift stations to take advantage of innovations in electronic controls and the availability of high-speed cellular communication networks. None of these modifications are part of the Construction Standards. To remain current, Construction Standards need to be updated.

Prepared by: William Butler Date: 2/17/2022

Signature William Butler

Financial approval: Michelle Peede Date: 2/17/2022

Signature Michelle Peede

NOTE: Fiscal notes attached to an ordinance are considered amendments to the budget and do not require an additional approval for insertion into the budget document.

Stantec 725 East Fireweed Lane Suite 200, Anchorage AK 99503-2245

February 15, 2022
File: 2073xxxx

Attention: Bill Butler
Director of City Services
City of North Pole
125 Snowman Lane
North Pole, AK 99705

Reference: North Pole Utility Construction Standards Update
Subject: Professional Services Proposal

Dear Mr. Butler:

Water and wastewater utility construction is guided by the City of North Pole's (CONP, City) *Utility Standards of Construction*, last updated in 2007. The Standards are now 15 years old, and no longer current. Accordingly, CONP seeks to update the standards to reflect current industry best practices as presently implemented in the City.

Stantec Consulting Services Inc. (Stantec) is pleased to provide you with this scope and fee proposal to update the City's Standards. It is expected the water and wastewater construction standards will be of similar content and format as the *2018 Water and Wastewater Service Line Standards* Stantec prepared for the CONP.

This proposal includes review of the current standards, and update of the standard details, drawings, and specifications for the construction of water and sewer utility systems. The proposed scope of services includes:

Review and Update Standards

Under this task, Stantec will review and update the 2007 Standards to reflect current utility operating practices, materials, and construction practices. As part of this task, Stantec will meet with CONP Operations staff in person and / or via video conference (MS Teams) to review current standards, the scope of work, and any particular concerns or ideas operators may have for the update. Developing the new standards is expected to be an interactive, iterative process.

The existing standard currently addresses the following items:

- Design Criteria
- Wastewater Systems
- Water Systems
- Surveying
- Traffic Control
- Trenching / Earthwork

In addition, Stantec proposes adding the following sections:

- Environmental Controls – To include SWPPP, Dewatering, Contaminated Sites
- Restoration - to include protection of private and City property, restoration of pavement, concrete, drainages, lawns, etc.
- SCADA Systems - requirements for communications, interface, and compatibility with City SCADA systems.

The "3-part" format of the current Standard (general requirements, material requirements, and execution) and order will be largely maintained.

Provisions for high-density polyethylene (HDPE) piping will be added to the water utility provisions.

Wastewater standards will require substantial update, particularly regarding mainline lift stations, and controls.

We have assumed that MS Word files are not available for the existing standards. As such, we have included allowance for PDF to text conversion in the project budget.

Update Standards Drawings and Details

Stantec will update the standard drawings and details to reflect current City practices. We envision the drawings will include:

Wastewater System – 4 to 5 sheets providing approximately 24 details for

- Trenching and Backfill
- Pipe Construction
- Manhole Details
- Mainline Lift station Details
- Control Panel Details

Water System – 3 to 4 sheets providing approximately 15 details for

- Trenching and Backfill
- Pipe construction
- Water system details
- Fire hydrant details

The drawings and details are presently 11x17 sheets. Stantec will evaluate feasibility of providing individual, letter-sized detail drawings, similar to the water and sewer service standards.

We have assumed that CAD files are not available for the current standard drawings. Accordingly, this task will require a fair amount of effort. Stantec will adapt versions of our own standard details where appropriate to reduce level of effort, but in many cases, we will need to "re-draw" the City's details.

Details and standard drawings will not be signed or stamped, as applicability and specific use are the responsibility of the end user.

ADEC Coordination

Stantec will submit the draft standards and drawings to ADEC for review and comment. Note that ADEC does not generally review and approve construction standards, so the submission to ADEC is more of an informational, courtesy submission. However, if ADEC does provide review comments, they will be incorporated into the final standard update.

Submittals

Stantec proposes the following progressive development and submittals:

- Draft – 85% complete
- Final Draft – 95% complete
- Final Standards – 100% complete

Each submittal will consist of the standards text document with the standard drawings. The text will be provided as PDF and MS Word, so City may work in "track changes" if desired.

Following each submittal, CONP will review the documents, return comments, and / or schedule a review conference to be held electronically via MS Teams or similar.

Each project submittal will address review comments from the previous phase.

Assumptions and/or Exclusions

Items not specifically included in the scope outlined herein are not part of the Stantec proposal. Where either Stantec or CONP identify additional work that may benefit the project, the work can be provided by amendment at current standard rates as CONP directs. The following clarifications are specifically noted:

- Submittals will be electronic only, in PDF, MS Word, and AutoCAD formats.
- Design review meetings will be held via teleconference or video meeting.
- The Standards will identify basic requirements to obtain typically required permits, but Stantec is not providing comprehensive lists of agencies or permitting requirements in the Standards, as these are site and project specific.
- Stantec is not providing any design, cost estimating, or value engineering services.
- Submittals beyond those listed herein will require a budget amendment.

Professional Services Proposal – North Pole Utility Construction Standards Update

Schedule

A project schedule has not been developed at this time. For a project of this magnitude an approximate 3-month duration is typical, including City reviews. Stantec will work with the City to establish an appropriate schedule upon execution of the professional services agreement.

As we are all aware, these are unprecedented times because of the COVID-19 pandemic. The situation is fluid and the Stantec proposal is based on what we understand as of today. Plans and schedules will be further discussed with the project manager to help mitigate the impact of this evolving situation on the CONP project. The schedule will be finalized with CONP upon notice-to-proceed and updated as work progresses if necessary.

Fee

The services described here will be provided to CONP in accordance with a Professional Services Agreement, using the Terms and Conditions previously negotiated and agreed to between Stantec and CONP (see attached). The total estimated fee for the proposed services is $116,354.80 to be performed on lump sum basis. The project will be invoiced monthly on a percent complete basis.

A worksheet showing the development and assumptions inherent in this fee is attached.

Closure

We appreciate this opportunity to propose on this work and look forward to working with you on the successful completion of this project. If you have any questions, or would like to discuss the scope of work, please contact me by phone or email. at my phone number below, or Stephanie Gould at (907) 343-5235, stephanie.gould@stantec.com..

Thank you,
Stantec Consulting Services Inc.

Dean Syta
Senior Principal
Phone: (907) 343-5260

dean.syta@stantec.com

Attachment: Fee Worksheet
c. File

DES br https://stantec-my.sharepoint.com/personal/dean_syta_stantec_com/documents/desktop/north pole water/construction standards/conp_const_stds_update_proposal_02152022.docx

725 East Fireweed Lane, Suite 200
Anchorage, AK 99503
Fee Estimate
Prepared by: Dean Syta

Update CONP Construction Standards
City of North Pole

February 15, 2021

Price Per Task Summary

Task	Task Name	Labor	Subcontracts	Expenses	Total	Notes
1	Draft Standards	$ 62,550.00	$ -	$ 334.80	$ 62,884.80	
2	Final Draft Standards	$ 32,356.00	$ -	$ 200.00	$ 32,556.00	
3	Final Standards	$ 15,280.00	$ -	$ 200.00	$ 15,480.00	
4	ADEC Submittal	$ 3,884.00	$ -	$ 1,550.00	$ 5,434.00	
5						
6						
7						
		$ 114,070.00	**$ -**	**$ 2,284.80**	**$ 116,354.80**	

Notes/Assumptions

1 See proposal letter dated February 15, 2022.

Fee Proposal
Update CONP Construction Standards
City of North Pole
February 15, 2021

	Task 1: Draft Standards	Summary		Project Manager / PIC	Senior Civil Eng / ITR	Senior Civil Eng	Civil Eng.	Civil EIT / CADD	Civil EIT / CADD	Civil EIT / CADD	CADD	Electrical	Controls	Admin	Admin	0	0	0	0	0	0
				Dean Syta	Stephanie S	Brian Miskill	Jake Alward	Moorhead	Petre	Hansmeyer	Hildalgo	Lucas s	Phil A	Spicer	Dixon	0	0	0	0	0	0
Subtask #	Sub-Task Name	Line Hours	Line Cost	$243.00	$208.00	$243.00	$188.00	$154.00	$159.00	$164.00	$188.00	$220.00	$243.00	$144.00	$164.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
1	Review Existing Standards	32.00	$6,496.00	4		4	4		4			4	4		8						
2																					
3	Standards / Specification Narrative	84.00	$16,420.00	4	8	8	16		24			8	8		8						
4																					
5	Standard Drawings - wastewater	84.00	$16,708.00	4		4	16				48	8	4								
6																					
7	Standard Drawings - water	64.00	$12,472.00	4		4	16				40										
8																					
9	Client / Team Meetings	26.00	$5,438.00	6		4	6		6			2	2								
10																					
11	QC, Project Management	24.00	$5,016.00	8	8		4								4						
12																					
13																					
14																					
15																					
16																					
17																					
18																					
	Labor Hours	314.00		30.00	16.00	24.00	62.00	0.00	34.00	0.00	88.00	22.00	18.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00
	Labor Subtotal		$62,550.00	$7,290.00	$3,328.00	$5,832.00	$11,656.00	$0.00	$5,406.00	$0.00	$16,544.00	$4,840.00	$4,374.00	$0.00	$3,280.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

TASK TOTALS

Direct Labor Cost	$62,550.00
Subcontract Expenses	$0.00
Other Direct Costs (ODCs)	$334.80
Total Cost	**$62,884.80**

SUBCONTRACT EXPENSES

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
				Travel Subtotal	$0.00

OTHER DIRECT COSTS (ODCs)

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1	Printing Allowance	1	LS	$300.00	$300.00
2	Mileage	60	miles	$0.58	$34.80
3					
4					
5					
6					
				Expenses Subtotal	$334.80

Fee Proposal
Update CONP Construction Standards
City of North Pole
February 15, 2021

	Task 2: Final Draft Standards	Summary		Project Manager / PIC	Senior Civil Eng / ITR	Senior Civil Eng	Civil Eng.	Civil EIT / CADD	Civil EIT / CADD	Civil EIT / CADD	CADD	Electrical	Controls	Admin	Admin	0	0	0	0	0	0
				Dean Syta	Stephanie S	Brian Miskill	Jake Alward	Moorhead	Petre	Hansmeyer	Hildalgo	Lucas s	Phil A	Spicer	Dixon	0	0	0	0	0	0
Subtask #	Sub-Task Name	Line Hours	Line Cost	$243.00	$208.00	$243.00	$188.00	$154.00	$159.00	$164.00	$188.00	$220.00	$243.00	$144.00	$164.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
1	Standards / Specification Narrative	48.00	$9,468.00	4	4	4	12		8			4	4		8						
2																					
3	Standard Drawings - wastewater	44.00	$8,944.00	4		4	8		4		16	4	4								
4																					
5	Standard Drawings - water	36.00	$7,092.00	4		4	8		4		16										
6																					
7	Client / Team Meetings	14.00	$3,136.00	4		2	4					2	2								
8																					
9	QC, Project Management	18.00	$3,716.00	4	8		4								2						
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					
21																					
	Labor Hours	160.00		20.00	12.00	14.00	36.00	0.00	16.00	0.00	32.00	10.00	10.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
	Labor Subtotal		$32,356.00	$4,860.00	$2,496.00	$3,402.00	$6,768.00	$0.00	$2,544.00	$0.00	$6,016.00	$2,200.00	$2,430.00	$0.00	$1,640.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

TASK TOTALS

Direct Labor Cost	$32,356.00
Subcontract Expenses	$0.00
Other Direct Costs (ODCs)	$200.00
Total Cost	**$32,556.00**

SUBCONTRACT EXPENSES

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1					$0.00
2					$0.00
3					$0.00
4					$0.00
5					$0.00
				Travel Subtotal	**$0.00**

OTHER DIRECT COSTS (ODCs)

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1	Printing Allowance	1	LS	$200.00	$200.00
2					$0.00
3					$0.00
4					$0.00
5					$0.00
				Expenses Subtotal	**$200.00**

Fee Proposal
Update CONP Construction Standards
City of North Pole
February 15, 2021

	Task 3: Final Standards	Summary		Project Manager / PIC	Senior Civil Eng / ITR	Senior Civil Eng	Civil Eng.	Civil EIT / CADD	Civil EIT / CADD	Civil EIT / CADD	CADD	Electrical	Controls	Admin	Admin	0	0	0	0	0	0
				Dean Syta	Stephanie S	Brian Miskill	Jake Alward	Moorhead	Petre	Hansmeyer	Hildalgo	Lucas s	Phil A	Spicer	Dixon	0	0	0	0	0	0
Subtask #	Sub-Task Name	Line Hours	Line Cost	$243.00	$208.00	$243.00	$188.00	$154.00	$159.00	$164.00	$188.00	$220.00	$243.00	$144.00	$164.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
1	Standards / Specification Narrative	34.00	$6,472.00	2		4	8		8			2	2		8						
2																					
3	Standard Drawings - wastewater	16.00	$3,182.00	2			4				8	2									
4																					
5	Standard Drawings - water	14.00	$2,742.00	2			4				8										
6																					
7	Client / Team Meetings	4.00	$862.00	2			2														
8																					
9	QC, Project Management	10.00	$2,022.00	2	4		2								2						
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
	Labor Hours	78.00		10.00	4.00	4.00	20.00	0.00	8.00	0.00	16.00	4.00	2.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
	Labor Subtotal		$15,280.00	$2,430.00	$832.00	$972.00	$3,760.00	$0.00	$1,272.00	$0.00	$3,008.00	$880.00	$486.00	$0.00	$1,640.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

TASK TOTALS	
Direct Labor Cost	$15,280.00
Subcontract Expenses	$0.00
Other Direct Costs (ODCs)	$200.00
Total Cost	**$15,480.00**

SUBCONTRACT EXPENSES

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1					$0.00
2					$0.00
3					$0.00
4					$0.00
5					$0.00
				Travel Subtotal	$0.00

OTHER DIRECT COSTS (ODCs)

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1	Printing Allowance	1	LS	$200.00	$200.00
2	Mileage		miles		$0.00
3					$0.00
4					$0.00
5					$0.00
				Expenses Subtotal	$200.00

Fee Proposal
Update CONP Construction Standards
City of North Pole
February 15, 2021

	Task 4: ADEC Submittal	Summary		Project Manager / PIC	Senior Civil Eng / ITR	Senior Civil Eng	Civil Eng.	Civil EIT / CADD	Civil EIT / CADD	Civil EIT / CADD	CADD	Electrical	Controls	Admin	Admin	0	0	0	0	0	0
				Dean Syta	Stephanie S	Brian Miskill	Jake Alward	Moorhead	Petre	Hansmeyer	Hildalgo	Lucas s	Phil A	Spicer	Dixon	0	0	0	0	0	0
Subtask #	Sub-Task Name	Line Hours	Line Cost	$243.00	$208.00	$243.00	$188.00	$154.00	$159.00	$164.00	$188.00	$220.00	$243.00	$144.00	$164.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
1																					
2	ADEC Submittal	**10.00**	**$1,894.00**	2			4								4						
3	Review Comments	**10.00**	**$1,990.00**	2			8														
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					
	Labor Hours	**20.00**		**4.00**	**0.00**	**0.00**	**12.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	Labor Subtotal		**$3,884.00**	**$972.00**	**$0.00**	**$0.00**	**$2,256.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$656.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**

TASK TOTALS

Direct Labor Cost	$3,884.00
Subcontract Expenses	$0.00
Other Direct Costs (ODCs)	$1,550.00
Total Cost	**$5,434.00**

SUBCONTRACT EXPENSES

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1					$0.00
2					$0.00
3					$0.00
4					$0.00
5					$0.00
				Travel Subtotal	**$0.00**

OTHER DIRECT COSTS (ODCs)

Item No.	Item (s)	Qty.	Unit	Unit Price	Total Price
1	Printing Allowance	1	LS	$50.00	$50.00
2	Mileage		miles	$0.58	$0.00
3	ADEC Plan Review Fee (Est)	1	LS	$1,500.00	$1,500.00
4					$0.00
5					$0.00
				Expenses Subtotal	**$1,550.00**

125 Snowman Lane
North Pole, Alaska 99705
(907) 488-8593
(907) 488-3002 (fax)
bill.butler@northpolealaska.org

City of North Pole
Director of City Services

Memo

To: North Pole City Council

From: Bill Butler

Date: February 16, 2022

Subject: Funding for design study for remodeling of the Old Water Treatment Plant

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There is a need for more office space to house Administrative and City Services' staff at City Hall. The hiring effort is underway for a human resources position responsible to the Mayor. There is potentially a need for additional staff in the Finance Department. The Utility Clerk's assignment was originally 50 percent Utility Department, 10 percent Building Department and 40% allocated for the Finance Department. With the North Pole Water System Expansion and the Moose Creek Expansion, the Utility Department shifted the Utility Clerk position to 90 percent Utility Department and 10 percent Building Department. There is not sufficient space in City Hall to house current and future staff.

Remodel of the Old Water Treatment Plant (OWTP) can remove the Director of City Services and Utility Clerk from City Hall for the projected growth in staffing that is anticipated at City Hall. The OWTP was built in the early 1970 and was occupied until 2014 and it has since been vacant. Proposed remodel cost of the OWTP would be shared as follows: 25% Water; 25% Sewer; 25% Public Works; and 25% Building Departments. The 2020 plan to remodel the OWTP floundered on uncertainties related to environmental hazards and insufficiently designed plans. Releasing a bid in 2020 to remodel the OWTP provided valuable information on the range of costs for the construction that ranged from approximately $750,000 to $1 million. Another lesson learned from the earlier remodel attempt was the remodel needed to be designed by a professional architect and managed by a professional engineering firm.

I requested Respec (formerly PDC) to submit a proposal for the design and construction management of the OWTP remodel. (See attached proposal.) Respec subdivided the work into 7 phases. I recommend and Respec has agreed to initially only conduct Respec's Phases 1, 2 & 3. These phase would conduct a more thorough assessment of the existing facility, particularly focusing on safety and hazmat issues and would generate a 65% design of the project. This initial work will provide the City with sound information to make the decision to proceed or not to proceed with the remodel and the documentation to seek external funding.

Sponsored by: Mayor Michael W. Welch
Advanced: February 22, 2022

CITY OF NORTH POLE
ORDINANCE 22-06
AN ORDINANCE OF THE CITY OF NORTH POLE, ALASKA TO FUND PRELIMINARY ASSESSMENT AND DESIGN FOR THE REMODEL OF THE OLD WATER TREATMENT PLANT AS OFFICE SPACE FOR CITY SERVICES DEPARTMENTS

WHEREAS, changes to practices and policies is a continually changing requirement; and,

WHEREAS, the City of North Pole budget should be amended to conform to the requirements of the City; and,

WHEREAS, adjustment in the budget are necessary to remain compliant with Council approved authorizations and budget management rules, and

WHEREAS, fiscal notes are the method prescribed by the code to amend a budget; and,

WHEREAS, fiscal notes have been reviewed by the Accountant and Mayor for accuracy and will be recorded as amendments to the budget upon approval,

NOW, THEREFORE, BE IT ORDAINED by the Council of the City of North Pole that it approves changes as listed in the attached fiscal note to pay for services to be provided by Respec totaling $111,010.60 for the preliminary assessment and design for the remodel of the Old Water Treatment Plant as office space to City Services departments.

Section 1. This ordinance is of a general nature and shall not be codified.

Section. Effective date.
This ordinance shall become effective immediately upon passage.

PASSED AND ADVANCED by a duly constituted quorum of the North Pole City Council this 7th day of March 2021.

_____
Michael W. Welch, Mayor

ATTEST:

_____
Melissa Dionne, North Pole City Clerk

PASSED/FAILED
Yes:
No:
Absent:

City of North Pole, Alaska

Fiscal Note Year: 2022

Accompanying Ordinance/Resolution: Ordinance 22-06
Originator/sponsor: William Butler
Date: February 17, 2022

Does the Ordinance or Resolution have a fiscal impact? ☒ **YES** ☐ **NO**

FUND	Account Description	Account #	Debit	Credit
Water Reserve	Transfer Out to Water Fund	51-10-9-999	28,000	
Sewer Reserve	Transfer Out to Sewer Fund	52-12-9-999	28,000	
Water Fund	Transfer In from Water Reserve	41-39-9990		28,000
Sewer Fund	Transfer In from Sewer Reserve	42-39-9990		28,000
Water Fund	Transfer In	41-39-9990	28,000	
Water Fund	Professional Services	41-10-2-235		28,000
Sewer Fund	Transfer In	42-39-9990	28,000	
Sewer Fund	Professional Services	42-12-2-235		28,000
General Fund	Transfer out	01-51-9-9990		28,000
Building Fund	Transfer in from General Fund	04-39-9998	28,000	
Building Fund	Professional Services	04-10-2-2350		28,000
Building Fund	Transfer out	04-10-9-9990	28,000	
General Fund	Professional Services	01-58-2-2350		28,000
General Fund	Transfer out	01-58-9-9990	28,000	

Summary: Funding is the initial work for the design for the remodel of the Old Water Treatment Plant to provide office space for City Services staff and the free up space at City Hall. The funding for the work will come from the four unit associated with City Services—Water, Sewer, Public Work and Building.

Prepared by: William Butler Date: 2/17/2022

Signature William Butler

Financial approval: Michelle Peede Date: 2/17/2022

Signature Michelle Peede

NOTE: Fiscal notes attached to an ordinance are considered amendments to the budget and do not require an additional approval for insertion into the budget document.

STATEMENT OF SERVICES

CITY OF NORTH POLE

OLD WATER TREATMENT PLANT OFFICE RENOVATION

RESPEC

CITY OF NORTH POLE
OLD WATER TREATMENT PLANT OFFICE RENOVATION
NORTH POLE, ALASKA

The City of North Pole (Client and Owner) has requested that RESPEC Company, LLC (ENGINEER) provide architectural and engineering services to prepare construction documents and provide bidding and construction assistance services for the City of North Pole Old Water Treatment Plant Office Renovation Project.

1. PROJECT SCOPE SUMMARY

The overall scope for the renovation is based on the City of North Pole Old Water Treatment Building drawings dated July 14, 2020, provided by the City of North Pole for our review and use and the following:

This Statement of Services details the scope to be provided by ENGINEER.

1.1. PROJECT MANAGEMENT

1. RESPEC will work with the Client to develop the develop the front end contract documents based on EJCDC forms and Division 1 specifications.
2. RESPEC with work with the Client to administer the project meetings during the design phases.
3. RESPEC will work with the Client to administer the Bidding Phase Services and Construction Administration services.

1.2. ARCHITECTURAL

1. CEDR Design and development will be a subcontractor to RESEPC to perform the Architectural services. See attached for additional information.
2. The City of North Pole Old Water Treatment Building drawings dated July 14, 2020 will be reviewed with the Client with the City of North Pole, to discuss/propose some changes. The following are an example of some of the items we identified from the brief review of the drawings. These are not solutions at this time, just items to review further and possible changes with the goal of optimizing the floor plan and provide a comfortable as possible workspace with the constraints of the existing construction.
    a. Remove roof on front half of building and provide scissor trusses to allow for more headroom.
    b. Consider flat roof on concrete bunker.
    c. Move Conference/Break room and ADA toilet to front have of building, which would eliminate need for ADA access in back half of building.

1) This would eliminate need for ramp and provide additional floor space.

d. Remove employee access entrance/exit.

e. Move Copier room to back half of building and use this space for a different function.

1) This room has windows, review if it is possible to move walls and arrange to make space large enough for an office, conference room, etc.

f. Move Mechanical room to the north or west wall so the air intake is away from parked cars.

g. Move landing and stair access from front half of building to back half of building to the east side of the building.

h. Arrange to use the landing for the access moved to the east side in the back half of the building to also serve for the exterior access door.

1) This would also allow for the exterior door for the lower floor to be removed and minimize the challenges with the door being below grade and drainage issues.

i. The door below grade as currently arranged may need an exterior ramp for ADA access, this would require further Code study to confirm.

1.3. HAZMAT

1. Shannon & Wilson Inc will be a subcontractor to RESPEC to perform the Hazmat services. See attached for additional information.

1.4. COST ESTIMATE

1. Estimations Inc will be a subcontractor to RESPEC to perform the Cost Estimate services. See attached for additional information.

1.5. SURVEY

1. Existing control, survey and utility data will be researched and used to the extent possible.
2. Field survey will include interior building finish floor elevations.
3. Underground utility locates are specifically excluded.
4. The survey deliverables include an AutoCAD Civil3D model space drawing with surface model and a signed one-sheet drawing depicting existing site conditions, 1-foot contours, and survey control.

1.6. CIVIL

1. Site plans
2. Parking & signage
3. Develop grading & drainage solution
4. ADA access design
5. Coordinate with the City for water and sanitary sewer services and IGU for natural gas service

1.7. STRUCTURAL

1. Perform structural Code analysis
2. Design openings in existing concrete structure.
3. Design floor framing.
4. Specify premanufactured roof trusses.

1.8. MECHANICAL

1. Perform ventilation code analysis.
2. Heating calculations and hyrdronic heating design.
3. Design plumbing modifications.

1.9. ELECTRICAL

1. Coordinate with utilities for power and telecom services.
2. The generator will be provided in an arctic enclosure exterior to the facility.

2. ENGINEERING REQUIREMENTS

Upon this Agreement becoming effective, the ENGINEER shall perform the following tasks:

2.1. PRE-DESIGN/PLANNING

- Develop alternate floor plan options.
- Coordinate with design team.
- Attend meeting with Client, Architect, and other design team members as needed to review alternate floor plan options.
- Establish concept floor plan arrangement.
- Submit concept floor plan drawings.

2.2. LIFE SAFETY CODE REVIEW AND HAZMAT EVALUATION

- Review record information.
- Attend kickoff meeting with Client and project team.
- Perform site visit to assess existing conditions.
- Coordinate with design team.
- Perform life safety code review.
- Perform hazmat evaluation.
- Develop hazmat removal cost.
- Submit preliminary Concept Floor Plan, Life Safety Drawings, preliminary Hazmat Drawings and specs, and Hazmat Assessment report and removal cost.

- Attend review meeting with Client to discuss comments.
- Develop and submit review comment responses.

2.3. 65% DESIGN DEVELOPMENT

- Perform site visit to further assess existing conditions.
- Perform survey and develop topo. Existing utility information will be pulled in from previous surveys, but current grading conditions will need to be verified.
- Coordinate with design team.
- Coordinate with utilities.
- Conduct analysis.
- Establish design criteria.
- Develop calculations.
- Develop design drawings.
- Develop technical specifications.
- Develop contract document and Division 1 specification index
- Conduct QC of drawings.
- Review cost estimate provided by Estimations to verify quantities match design intent.
- Submit drawings, specifications, and cost estimate.
- Attend review meeting with Client to discuss comments.
- Develop and submit review comment responses.

2.4. 95% CONSTRUCTION DOCUMENTS

- Update the design based on comments received from 65% design.
- Continue to coordinate with design team.
- Continue to coordinate with utilities.
- Update analysis.
- Update calculations.
- Further develop design drawings and provide additional detail as needed.
- Further develop technical specifications.
- Develop front end contract documents.
- Develop Division 1 specifications.
- Conduct QC of drawings.
- Submit drawings and specifications.
- Attend review meeting.
- Develop and submit review comment responses.

2.5. CONSTRUCTION DOCUMENTS

- Update the design based on comments received from 95% design.
- Finalize coordination with design team.
- Finalize construction documents.
- Conduct QC of construction documents.
- Submit construction documents.
- Prepare application for plan review and submit to State Fire Marshall.

2.6. BIDDING

- Attend Prebid meeting.
- Respond to Fire Marshall review.
- Respond to bidder questions.
- Prepare Addenda
- Assist Client with reviewing bids and award.

2.7. CONSTRUCTION ADMINISTRATION

- Attend preconstruction meeting.
- Construction meetings (estimated every other week)
- Submittal reviews.
- Payment application reviews.
- Design clarifications.
- Respond to contractor request for information.
- Change order reviews.
- Civil observations of grading and access.
- Special Inspections.
- Electrical grounding observations.
- MEP rough in observations.
- MEP above ceiling observations.
- Periodic site observations.
- Substantial completion site observations.
- Final completion site observation.
- As-Built Drawings Review
- Record Drawings.

3. ASSUMPTIONS

1. The Pre-Design/Planning phase and the Life Safety Code Review and Hazmat Evaluation phase are related and are required to be performed concurrently.
    a. If the pre-design/planning phase is not approved by the Client the design will move forward with no changes to the floor plan included in the City of North Pole Old Water Treatment Building drawings dated July 14, 2020.
2. The code evaluation and preliminary analysis does not require a 100% analysis and widespread structural upgrade.
3. Design direction for the roof type(s) will be selected prior to 65% design development phase.
4. The Survey Task may begin prior to the schedule for the other 65% Design Development Tasks to allow for the information to be available for the development of the 65% site design.
5. Meetings will typically be conducted remotely via Microsoft Teams or other similar communication software.
6. The Bidding Phase Services and Construction Administration services will be administered using email correspondence, Submittal Exchange will not be used.
7. Special inspections are visual for framing, concrete, and anchors. All material testing delegated to contractor.
8. Scope of work excludes fire protection.
9. The scope of work excludes narratives.
10. The scope of work excludes conformed drawings.
11. The total price does not include additional labor and expenses from the schedule being delayed by the Client.

4. CLIENT RESPONSIBILITIES

1. Access to all portions of the existing facility for performing the site visits.
2. The Client shall arrange for the on-site investigation to be conducted during normal business hours (8:00 am - 5:00 pm).

5. SCHEDULE

The schedule for the project is as follows, or to be determined (TBD) pending coordination with the OWNER:

1.	Notice to Proceed:	March 4, 2022
2.	Pre-Design/Planning (5-weeks):	April 8, 2022
3.	Life safety Code Review (5-weeks):	April 8, 2022
4.	Hazmat Evaluation:	April 8, 2022
5.	65% Design Development, Survey (4-weeks):	TBD

6.	65% Design Development (8-weeks):	June 3, 2022
7.	City Review and meeting (2-weeks):	TBD
8.	95% Construction Documents (6-weeks after review meeting):	July 29, 2022
9.	City Review and meeting (1-weeks):	TBD
10.	Construction Documents (2-weeks after review meeting):	August 19, 2022
11.	Fire Marshall Review (6-weeks):	September 30, 2022
12.	Bidding Phase Services (4-weeks):	October 28, 2022
13.	Construction Administration (completed):	October 2023

6. METHOD OF PAYMENT

The Consultant will perform the design phase services on a lump sum basis for $184,423.10. See attachment for additional information.

The Consultant will perform the Bidding Phase Services and Construction Administration services on a time and expenses basis for $102,071.00. See attachment for additional information.

END OF STATEMENT OF SERVICES

	Phase	Project Management	Civil	Structural	Mechanical	Electrical	Survey	ODCs	CEDR	Shannon & Wilson	Estimations	Subconsultant Total	Subconsultant Markup	Total
1	#200 - Pre-Design/Planning	$1,575.00	$300.00	$700.00	$360.00	$320.00	$0.00	$0.00	$2,185.00	$0.00	$0.00	$2,185.00	$218.50	$5,658.50
2	#400 - Life Saftey Code Review and Ha	$9,750.00	$1,020.00	$3,820.00	$1,440.00	$1,280.00	$0.00	$0.00	$400.00	$12,470.00	$0.00	$12,870.00	$1,287.00	$31,467.00
3	#420 - Design Development (65%)	$8,770.00	$9,195.00	$11,570.00	$10,280.00	$10,975.00	$5,695.00	$398.00	$5,145.00	$6,680.00	$3,686.00	$15,511.00	$1,551.10	$73,945.10
4	#430 - Pre-Final Design (95%)	$11,355.00	$7,510.00	$8,200.00	$7,405.00	$9,530.00	$0.00	$0.00	$4,645.00	$2,680.00	$0.00	$7,325.00	$732.50	$52,057.50
5	#440 - Construction Documents (100%	$5,600.00	$2,970.00	$3,460.00	$3,055.00	$3,020.00	$0.00	$0.00	$1,180.00	$1,720.00	$0.00	$2,900.00	$290.00	$21,295.00
6	#490 - Bid Phase Services	$3,830.00	$1,655.00	$1,825.00	$1,620.00	$1,775.00	$0.00	$0.00	$1,340.00	$2,680.00	$0.00	$4,020.00	$402.00	$15,127.00
7	#900 - Construction Administration	$35,550.00	$9,490.00	$9,720.00	$9,290.00	$9,400.00	$0.00	$800.00	$8,860.00	$2,680.00	$0.00	$11,540.00	$1,154.00	$86,944.00
	Subtotal	$76,430.00	$32,140.00	$39,295.00	$33,450.00	$36,300.00	$5,695.00	$1,198.00	$23,755.00	$28,910.00	$3,686.00	$56,351.00	$5,635.10	$286,494.10
	Total													$286,494.10

Phase	1												
#200 - Pre-Design/Planning	Principal	Senior Eng	Lead Eng	Project Eng	Staff Eng	EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$225.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Meeting Floor Plan Options	3											3	$675.00
Mgmnt/Coord/Corrspnd	4											4	$900.00
												0	$0.00
Hourly Subtotal	7	0	0	0	0	0	0	0	0	0	0	7	
Phase Cost	$1,575.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		$1,575.00

Phase	2												
#400 - Life Safety Code Review and Hazmat Evaluation	Principal	Senior Eng	Lead Eng	Project Eng	Staff Eng	EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$225.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Develop Scope of Work	8											8	$1,800.00
Project Setup	2											2	$450.00
Contracts	6											6	$1,350.00
Record Information	1											1	$225.00
Kickoff Meeting	4											4	$900.00
Site Visit	3											3	$675.00
Mgmnt/Coord/Corrspnd	8											8	$1,800.00
CAD Mangement								4				4	$500.00
Assemble Submittal	2							2				4	$700.00
QC	2											2	$450.00
Review Meeting	4											4	$900.00
												0	$0.00
Hourly Subtotal	40	0	0	0	0	0	0	6	0	0	0	46	
Phase Cost	$9,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$750.00	$0.00	$0.00	$0.00		$9,750.00

Phase	3												
#420 - Design Development (65%)	Principal	Senior Eng	Lead Eng	Project Eng	Staff Eng	EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$225.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Site Visit	3											3	$675.00
Mgmnt/Coord/Corrspnd	10											10	$2,250.00
CAD Mangement								4				4	$500.00
Cover Sheet	2							2				4	$700.00
Assemble Submittal	2							2			2	6	$930.00
QC	2											2	$450.00
Review Cost Estimate	2											2	$450.00
Review Meeting	4											4	$900.00
Review Comment Resolution	4											4	$900.00
Contract Specifications- Initial Coordination	2										1	3	$565.00
Div 1 Specification Index	2											2	$450.00
												0	$0.00
Hourly Subtotal	33	0	0	0	0	0	0	8	0	0	3	44	
Phase Cost	$7,425.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,000.00	$0.00	$0.00	$345.00		$8,770.00

Phase	4												
#430 - Pre-Final Design (95%)	Principal	Senior Eng	Lead Eng	Project Eng	Staff Eng	EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$225.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Mgmnt/Coord/Corrspnd	6											6	$1,350.00
CAD Mangement								4				4	$500.00
Cover Sheet	1							1				2	$350.00
Assemble Submittal	2							2			1	5	$815.00
QC	2											2	$450.00
Review Meeting	4											4	$900.00
Review Comment Resolution	4											4	$900.00
Contract Specifications	16										4	20	$4,060.00
Div 1 Specifications	8										2	10	$2,030.00
												0	$0.00
Hourly Subtotal	43	0	0	0	0	0	0	7	0	0	7	57	
Phase Cost	$9,675.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$875.00	$0.00	$0.00	$805.00		$11,355.00

Phase	5												
#440 - Construction Documents (100%)	Principal	Senior Eng	Lead Eng	Project Eng	Staff Eng	EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$225.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Mgmnt/Coord/Corrspnd	4											4	$900.00
CAD Mangement								2				2	$250.00
Cover Sheet	1							1				2	$350.00
Assemble Submittal	2							2			1	5	$815.00
QC	2											2	$450.00
Contract Specifications	4										1	5	$1,015.00
Div 1 Specifications	2										2	4	$680.00
Fire Marshall Submital	4							1			1	6	$1,140.00
												0	$0.00
Hourly Subtotal	19	0	0	0	0	0	0	6	0	0	5	30	
Phase Cost	$4,275.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$750.00	$0.00	$0.00	$575.00		$5,600.00

Phase	6												
#490 - Bid Phase Services	Principal	Senior Eng	Lead Eng	Project Eng	Staff Eng	EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$225.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Prebid Meeting	3											3	$675.00
Mgmnt/Coord/Corrspnd	4											4	$900.00
Fire Marshall Review Comment Resolution	1											1	$225.00
Bidder Review Comment Resolution	4											4	$900.00
Prepare Addenda	4										2	6	$1,130.00
												0	$0.00
Hourly Subtotal	16	0	0	0	0	0	0	0	0	0	2	18	
Phase Cost	$3,600.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$230.00		$3,830.00

Phase	7												
#900 - Construction Administration	Principal	Senior Eng	Lead Eng	Project Eng	Staff Eng	EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$225.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Preconstruction Meeting	4											4	$900.00
Mgmnt/Coord/Corrspnd	40											40	$9,000.00
Construction Meetings (18)	36											36	$8,100.00
Submittal Reviews	20											20	$4,500.00
Payment Application Reviews	10											10	$2,250.00
Design Clarifications	20											20	$4,500.00
Special Inspections	4											4	$900.00
Rough In Observations	4											4	$900.00
Above Ceiling Observations	4											4	$900.00
Substantial Completion Site Observations	4											4	$900.00
Final Site Observations	4											4	$900.00
As-Built Drawings Review	4											4	$900.00
Record Drawings	4											4	$900.00
												0	$0.00
Hourly Subtotal	158	0	0	0	0	0	0	0	0	0	0	158	
Phase Cost	$35,550.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		$35,550.00

Project Management Hours	316	0	0	0	0	0	0	27	0	0	17	360	
Project Management Cost	$71,100.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$3,375.00	$0.00	$0.00	$1,955.00		$76,430.00

Phase	1												
#200 - Pre-Design/Planning	Principal Civil Eng	Senior Civil Eng	Lead Civil Eng	Project Civil Eng	Civil Eng	Civil EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Coord/Corrspnd, Team				2								2	$300.00
												0	$0.00
Hourly Subtotal	0	0	0	2	0	0	0	0	0	0	0	2	
Cost	$0.00	$0.00	$0.00	$300.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		$300.00

Phase	2												
#400 - Life Safety Code Review and Hazmat Evaluation	Principal Civil Eng	Senior Civil Eng	Lead Civil Eng	Project Civil Eng	Civil Eng	Civil EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Review Record Info-Coordinate Survey needs				2		4						6	$720.00
Kickoff Meeting				1								1	$150.00
Coord/Corrspnd, Team				1								1	$150.00
												0	$0.00
Hourly Subtotal	0	0	0	4	0	4	0	0	0	0	0	8	
Cost	$0.00	$0.00	$0.00	$600.00	$0.00	$420.00	$0.00	$0.00	$0.00	$0.00	$0.00		$1,020.00

Phase	3												
#420 - Design Development (65%)	Principal Civil Eng	Senior Civil Eng	Lead Civil Eng	Project Civil Eng	Civil Eng	Civil EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Site Visit				2		2						4	$510.00
Review Survey Topo				1								1	$150.00
Coordinate w/ IGU for gas service				2								2	$300.00
Review existing water and sewer mains and develop routing for service lines				2		4				2		8	$910.00
Review Drainage and ADA Constraints				2		4						6	$720.00
Develop Site Plan				6		4				8		18	$2,080.00
Develop Grading Plan				1		6				4		11	$1,160.00
Develop Sewer Plan & Profile				1		4				4		9	$950.00
Specifications				4							1	5	$715.00
Coord/Corrspnd, Team				2								2	$300.00
QC	2											2	$500.00
Review Cost Estimate				2								2	$300.00
65% Review Meeting/Comments				2								2	$300.00
Review Comment Resolution				2								2	$300.00
												0	$0.00
Hourly Subtotal	2	0	0	29	0	24	0	0	0	18	1	74	
Cost	$500.00	$0.00	$0.00	$4,350.00	$0.00	$2,520.00	$0.00	$0.00	$0.00	$1,710.00	$115.00		$9,195.00

Phase	4												
#430 - Pre-Final Design (95%)	Principal Civil Eng	Senior Civil Eng	Lead Civil Eng	Project Civil Eng	Civil Eng	Civil EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Update Site Plan				1		2				4		7	$740.00
Update Grading Plan				2		4				6		12	$1,290.00
Update Utility Plan & Profile				1		3				6		10	$1,035.00
Develop Sections and Details				1		4				8		13	$1,330.00
Add construction control				1		2				2		5	$550.00
Coord w/ other disciplines				2							1	3	$415.00
Update Specifications				4								4	$600.00
Review Cost Estimate				1								1	$150.00
QC	2											2	$500.00
95% Review Meeting/Comments				2								2	$300.00
Coord/Corrspnd, Utilites				2								2	$300.00
Review Comment Resolution				2								2	$300.00
												0	$0.00
Hourly Subtotal	2	0	0	19	0	15	0	0	0	26	1	63	
Cost	$500.00	$0.00	$0.00	$2,850.00	$0.00	$1,575.00	$0.00	$0.00	$0.00	$2,470.00	$115.00		$7,510.00

Phase	5												
#440 - Construction Documents (100%)	Principal Civil Eng	Senior Civil Eng	Lead Civil Eng	Project Civil Eng	Civil Eng	Civil EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Finalize Site Plan				1		2				2		5	$550.00
Finalize Grading Plan				1		2				2		5	$550.00
Finalize Utility Plan & Profile				1		2				2		5	$550.00
Finalize Sections and Details				1		2				2		5	$550.00
Coord/Corrspnd, Team				1		1						2	$255.00
Update Specifications				1							1	2	$265.00
QC	1											1	$250.00
												0	$0.00
Hourly Subtotal	1	0	0	6	0	9	0	0	0	8	1	25	
Cost	$250.00	$0.00	$0.00	$900.00	$0.00	$945.00	$0.00	$0.00	$0.00	$760.00	$115.00		$2,970.00

Phase	6												
#490 - Bid Phase Services	Principal Civil Eng	Senior Civil Eng	Lead Civil Eng	Project Civil Eng	Civil Eng	Civil EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Fire Marshall Review Comment Resolution				2								2	$300.00
Bidder Review Comment Resolution				2								2	$300.00
Prepare Addenda				2		3				2		7	$805.00
NOTE - Civil Would Not Attend Pre-Bid Meeting												0	$0.00
QC	1											1	$250.00
												0	$0.00
Hourly Subtotal	1	0	0	6	0	3	0	0	0	2	0	12	
Cost	$250.00	$0.00	$0.00	$900.00	$0.00	$315.00	$0.00	$0.00	$0.00	$190.00	$0.00		$1,655.00

Phase	7												
#900 - Construction Administration	Principal Civil Eng	Senior Civil Eng	Lead Civil Eng	Project Civil Eng	Civil Eng	Civil EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$185.00	$175.00	$150.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Attend Pre-Con meeting				2								2	$300.00
Construction Meetings (4)				6								6	$900.00
Submittal Reviews				4		10						14	$1,650.00
Payment Application Reviews				4								4	$600.00
Design Clarifications				10		8						18	$2,340.00
Observations, Grading and Access & Report				5								5	$750.00
Substantial Completion Site Observations & Report				4								4	$600.00
Final Site Observations & Report				3								3	$450.00
As-Built Drawings Review				1		4						5	$570.00
Record Drawings				1		4				8		13	$1,330.00
												0	$0.00
Hourly Subtotal	0	0	0	40	0	26	0	0	0	8	0	74	
Cost	$0.00	$0.00	$0.00	$6,000.00	$0.00	$2,730.00	$0.00	$0.00	$0.00	$760.00	$0.00		$9,490.00

Civil Hours	6	0	0	106	0	81	0	0	0	62	3	258	
Civil Cost	$1,500.00	$0.00	$0.00	$15,900.00	$0.00	$8,505.00	$0.00	$0.00	$0.00	$5,890.00	$345.00		$32,140.00

Phase	1												
#200 - Pre-Design/Planning	Principal Struct. Eng	Senior Struct. Eng	Lead Struct. Eng	Project Struct. Eng	Staff Struct. Eng	Struct. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$190.00	$175.00	$150.00	$130.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Coord/Corrspnd, Team			2									2	$350.00
Review with Arch			2									2	$350.00
												0	$0.00
Hourly Subtotal	0	0	4	0	0	0	0	0	0	0	0	4	
Cost	$0.00	$0.00	$700.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		$700.00

Phase	2												
#400 - Life Safety Code Review and Hazmat Evaluation	Principal Struct. Eng	Senior Struct. Eng	Lead Struct. Eng	Project Struct. Eng	Staff Struct. Eng	Struct. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$190.00	$175.00	$150.00	$130.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Review Record Info			2									2	$350.00
Kickoff Meeting			2									2	$350.00
Site Visit			3									3	$525.00
Coord/Corrspnd, Team			2									2	$350.00
IEBC review & quick calcs			8									8	$1,400.00
Code review report			2								1	3	$465.00
QC		2										2	$380.00
												0	$0.00
Hourly Subtotal	0	2	19	0	0	0	0	0	0	0	1	22	
Cost	$0.00	$380.00	$3,325.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$115.00		$3,820.00

Phase	3												
#420 - Design Development (65%)	Principal Struct. Eng	Senior Struct. Eng	Lead Struct. Eng	Project Struct. Eng	Staff Struct. Eng	Struct. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$190.00	$175.00	$150.00	$130.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Follow up investigation for unknowns						3						3	$315.00
Coord/Corrspnd, Team			2									2	$350.00
Specifications			6									6	$1,050.00
Drawings						2	14					16	$2,100.00
QC		6										6	$1,140.00
Roof analysis			1			8						9	$1,015.00
Floor analysis			1			4						5	$595.00
Lateral analysis			8			4						12	$1,820.00
Openings in (E)			4									4	$700.00
Foundation checks			2			4						6	$770.00
Stairs, ramps, misc.			2									2	$350.00
Cost estimate review			2			2						4	$560.00
Review meeting/comments			4			1						5	$805.00
												0	$0.00
Hourly Subtotal	0	6	32	0	0	28	14	0	0	0	0	80	
Cost	$0.00	$1,140.00	$5,600.00	$0.00	$0.00	$2,940.00	$1,890.00	$0.00	$0.00	$0.00	$0.00		$11,570.00

Phase	4												
#430 - Pre-Final Design (95%)	Principal Struct. Eng	Senior Struct. Eng	Lead Struct. Eng	Project Struct. Eng	Staff Struct. Eng	Struct. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$190.00	$175.00	$150.00	$130.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Coord/Corrspnd, Team			4									4	$700.00
Specifications			6								1	7	$1,165.00
Drawings						4	12					16	$2,040.00
Analysis developments			2			14						16	$1,820.00
Detailing			1			8						9	$1,015.00
OTS review coordination			4									4	$700.00
QC		4										4	$760.00
												0	$0.00
Hourly Subtotal	0	4	17	0	0	26	12	0	0	0	1	60	
Cost	$0.00	$760.00	$2,975.00	$0.00	$0.00	$2,730.00	$1,620.00	$0.00	$0.00	$0.00	$115.00		$8,200.00

Phase	5												
#440 - Construction Documents (100%)	Principal Struct. Eng	Senior Struct. Eng	Lead Struct. Eng	Project Struct. Eng	Staff Struct. Eng	Struct. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$190.00	$175.00	$150.00	$130.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Finalize Design			2			4						6	$770.00
Finalize Specifications			1								1	2	$290.00
Coord/Corrspnd, Team			2									2	$350.00
QC		1										1	$190.00
Calc package			3			3						6	$840.00
Finalize Drawings						2	6					8	$1,020.00
												0	$0.00
Hourly Subtotal	0	1	8	0	0	9	6	0	0	0	1	25	
Cost	$0.00	$190.00	$1,400.00	$0.00	$0.00	$945.00	$810.00	$0.00	$0.00	$0.00	$115.00		$3,460.00

Phase	6												
#490 - Bid Phase Services	Principal Struct. Eng	Senior Struct. Eng	Lead Struct. Eng	Project Struct. Eng	Staff Struct. Eng	Struct. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$190.00	$175.00	$150.00	$130.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Fire Marshall Review Comment Resolution			2									2	$350.00
Bidder Review Comment Resolution		1	2									3	$540.00
Prepare Addenda			2			3	2					7	$935.00
												0	$0.00
Hourly Subtotal	0	1	6	0	0	3	2	0	0	0	0	12	
Cost	$0.00	$190.00	$1,050.00	$0.00	$0.00	$315.00	$270.00	$0.00	$0.00	$0.00	$0.00		$1,825.00

Phase	7												
#900 - Construction Administration	Principal Struct. Eng	Senior Struct. Eng	Lead Struct. Eng	Project Struct. Eng	Staff Struct. Eng	Struct. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$190.00	$175.00	$150.00	$130.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Construction Meetings (2)			2			2						4	$560.00
Submittal Reviews			2			10						12	$1,400.00
RFPs			2									2	$350.00
Design Clarifications		1	3			6						10	$1,345.00
Framing inspect (3)			6			3						9	$1,365.00
Concrete (2)			4			4						8	$1,120.00
Post-installed anchors (2)			3			3						6	$840.00
Substantial completion			3									3	$525.00
Record drawings			1			2	4					7	$925.00
CA correspondence		2	4			2						8	$1,290.00
												0	$0.00
Hourly Subtotal	0	3	30	0	0	32	4	0	0	0	0	69	
Cost	$0.00	$570.00	$5,250.00	$0.00	$0.00	$3,360.00	$540.00	$0.00	$0.00	$0.00	$0.00		$9,720.00

Structural Hours	0	17	116	0	0	98	38	0	0	0	3	272	
Structural Cost	$0.00	$3,230.00	$20,300.00	$0.00	$0.00	$10,290.00	$5,130.00	$0.00	$0.00	$0.00	$345.00		$39,295.00

Phase	1												
#200 - Pre-Design/Planning	Principal Mech Eng	Senior Mech Eng	Lead Mech Eng	Project Mech Eng	Staff Mech Eng	Mech. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$180.00	$165.00	$165.00	$155.00	$130.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Coord/Corrspnd, Team		2										2	$360.00
												0	$0.00
Hourly Subtotal	0	2	0	0	0	0	0	0	0	0	0	2	
Cost	$0.00	$360.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		$360.00

Phase	2												
~~#400 - Life Safety Code~~ Review and Hazmat Evaluation	Principal Mech Eng	Senior Mech Eng	Lead Mech Eng	Project Mech Eng	Staff Mech Eng	Mech. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$180.00	$165.00	$165.00	$155.00	$130.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Review Record Info		2										2	$360.00
Kickoff Meeting		2										2	$360.00
Site Visit		3										3	$540.00
Coord/Corrspnd, Team		1										1	$180.00
												0	$0.00
Hourly Subtotal	0	8	0	0	0	0	0	0	0	0	0	8	
Cost	$0.00	$1,440.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		$1,440.00

Phase	3												
#420 - Design Development (65%)	Principal Mech Eng	Senior Mech Eng	Lead Mech Eng	Project Mech Eng	Staff Mech Eng	Mech. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$180.00	$165.00	$165.00	$155.00	$130.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Site Visit		3				3						6	$930.00
Coord/Corrspnd, Team		3				3						6	$930.00
Specifications		2				6					4	12	$1,600.00
Drawings		2				12			16			30	$3,680.00
Calculations		1				6						7	$960.00
QC	2											2	$500.00
Review Cost Estimate		1				2						3	$440.00
Review Meeting		2										2	$360.00
Review Comment Resolution		2				4						6	$880.00
												0	$0.00
Hourly Subtotal	2	16	0	0	0	36	0	0	16	0	4	74	
Cost	$500.00	$2,880.00	$0.00	$0.00	$0.00	$4,680.00	$0.00	$0.00	$1,760.00	$0.00	$460.00		$10,280.00

Phase	4												
#430 - Pre-Final Design (95%)	Principal Mech Eng	Senior Mech Eng	Lead Mech Eng	Project Mech Eng	Staff Mech Eng	Mech. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$180.00	$165.00	$165.00	$155.00	$130.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Coord/Corrspnd, Team		3				3						6	$930.00
Specifications		2				5					3	10	$1,355.00
Drawings		2				10			14			26	$3,200.00
Calculations		1				2						3	$440.00
QC	2											2	$500.00
Review Meeting		2										2	$360.00
Review Comment Resolution		2				2						4	$620.00
												0	$0.00
Hourly Subtotal	2	12	0	0	0	22	0	0	14	0	3	53	
Cost	$500.00	$2,160.00	$0.00	$0.00	$0.00	$2,860.00	$0.00	$0.00	$1,540.00	$0.00	$345.00		$7,405.00

Phase	5												
#440 - Construction Documents (100%)	Principal Mech Eng	Senior Mech Eng	Lead Mech Eng	Project Mech Eng	Staff Mech Eng	Mech. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$180.00	$165.00	$165.00	$155.00	$130.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Finalize Design		3				6			8			17	$2,200.00
Finalize Specifications		1									1	2	$295.00
Coord/Corrspnd, Team		1				1						2	$310.00
QC	1											1	$250.00
												0	$0.00
Hourly Subtotal	1	5	0	0	0	7	0	0	8	0	1	22	
Cost	$250.00	$900.00	$0.00	$0.00	$0.00	$910.00	$0.00	$0.00	$880.00	$0.00	$115.00		$3,055.00

Phase	6												
#490 - Bid Phase Services	Principal Mech Eng	Senior Mech Eng	Lead Mech Eng	Project Mech Eng	Staff Mech Eng	Mech. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$180.00	$165.00	$165.00	$155.00	$130.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Fire Marshall Review Comment Resolution		2										2	$360.00
Bidder Review Comment Resolution		2										2	$360.00
Prepare Addenda		1				3			3			7	$900.00
												0	$0.00
Hourly Subtotal	0	5	0	0	0	3	0	0	3	0	0	11	
Cost	$0.00	$900.00	$0.00	$0.00	$0.00	$390.00	$0.00	$0.00	$330.00	$0.00	$0.00		$1,620.00

Phase	7												
#900 - Construction Administration	Principal Mech Eng	Senior Mech Eng	Lead Mech Eng	Project Mech Eng	Staff Mech Eng	Mech. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$180.00	$165.00	$165.00	$155.00	$130.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Construction Meetings (8)		8										8	$1,440.00
Submittal Reviews		4				4						8	$1,240.00
Payment Application Reviews		3										3	$540.00
Design Clarifications		6				6			2			14	$2,080.00
Rough In Observations		1				4						5	$700.00
Above Ceiling Observations		1				4						5	$700.00
Substantial Completion Site Observations		1				4						5	$700.00
Final Site Observations		1				3						4	$570.00
Record Drawings		2				4			4			10	$1,320.00
												0	$0.00
Hourly Subtotal	0	27	0	0	0	29	0	0	6	0	0	62	
Cost	$0.00	$4,860.00	$0.00	$0.00	$0.00	$3,770.00	$0.00	$0.00	$660.00	$0.00	$0.00		$9,290.00

Mechanical Hours	5	75	0	0	0	97	0	0	47	0	8	224	
Mechanical Cost	$1,250.00	$13,500.00	$0.00	$0.00	$0.00	$12,610.00	$0.00	$0.00	$5,170.00	$0.00	$920.00		$32,530.00

Phase	1												
#200 - Pre-Design/Planning	Principal Elec. Eng	Senior Elec. Eng	Lead Elec. Eng	Project Elec. Eng	Staff Elec. Eng	Elec. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$200.00	$185.00	$160.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Coord/Corrspnd, Team				2								2	$320.00
												0	$0.00
Hourly Subtotal	0	0	0	2	0	0	0	0	0	0	0	2	
Cost	$0.00	$0.00	$0.00	$320.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		$320.00

Phase	2												
#400 - Life Safety Code Review and Hazmat Evaluation	Principal Elec. Eng	Senior Elec. Eng	Lead Elec. Eng	Project Elec. Eng	Staff Elec. Eng	Elec. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$200.00	$185.00	$160.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Review Record Info				2								2	$320.00
Kickoff Meeting				2								2	$320.00
Site Visit				3								3	$480.00
Coord/Corrspnd, Team				1								1	$160.00
												0	$0.00
Hourly Subtotal	0	0	0	8	0	0	0	0	0	0	0	8	
Cost	$0.00	$0.00	$0.00	$1,280.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		$1,280.00

Phase	3												
#420 - Design Development (65%)	Principal Elec. Eng	Senior Elec. Eng	Lead Elec. Eng	Project Elec. Eng	Staff Elec. Eng	Elec. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$200.00	$185.00	$160.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Site Visit				3								3	$480.00
Coord/Corrspnd, Team				2		4						6	$740.00
Specifications				6		2					1	9	$1,285.00
QC	2											2	$500.00
Review Cost Estimate				1		2						3	$370.00
Review Meeting						2						2	$210.00
Review Comment Resolution				1		3						4	$475.00
Coord/Corrspnd, Utilites				4								4	$640.00
Dwg - Site Utilites				1		2		4				7	$870.00
Dwg - Demolition						2		2				4	$460.00
Dwg - Service/Distribution				4		1		2				7	$995.00
Dwg - Lighting				1		4		4				9	$1,080.00
Dwg - Power				1		4		4				9	$1,080.00
Dwg - Telecom/Data				1		2		2				5	$620.00
Dwg - Genset				6		2						8	$1,170.00
												0	$0.00
Hourly Subtotal	2	0	0	31	0	30	0	18	0	0	1	82	
Cost	$500.00	$0.00	$0.00	$4,960.00	$0.00	$3,150.00	$0.00	$2,250.00	$0.00	$0.00	$115.00		$10,975.00

Phase	4												
#430 - Pre-Final Design (95%)	Principal Elec. Eng	Senior Elec. Eng	Lead Elec. Eng	Project Elec. Eng	Staff Elec. Eng	Elec. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$200.00	$185.00	$160.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Coord/Corrspnd, Team				1		3						4	$475.00
Specifications				6		2					1	9	$1,285.00
QC	2											2	$500.00
Review Meeting						2						2	$210.00
Review Comment Resolution				1		2						3	$370.00
Coord/Corrspnd, Utilites				4								4	$640.00
Dwg - Site Utilites				1		3		2				6	$725.00
Dwg - Demolition				1		1		1				3	$390.00
Dwg - Service/Distribution				2		1		1				4	$550.00
Dwg - Lighting				1		4		3				8	$955.00
Dwg - Power				1		8		4				13	$1,500.00
Dwg - Telecom/Data				1		4		2				7	$830.00
Dwg - Genset				4		2		2				8	$1,100.00
												0	$0.00
Hourly Subtotal	2	0	0	23	0	32	0	15	0	0	1	73	
Cost	$500.00	$0.00	$0.00	$3,680.00	$0.00	$3,360.00	$0.00	$1,875.00	$0.00	$0.00	$115.00		$9,530.00

Phase	5												
#440 - Construction Documents (100%)	Principal Elec. Eng	Senior Elec. Eng	Lead Elec. Eng	Project Elec. Eng	Staff Elec. Eng	Elec. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$200.00	$185.00	$160.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Finalize Design				4		8		6				18	$2,230.00
Finalize Specifications				1							1	2	$275.00
Coord/Corrspnd, Team				1		1						2	$265.00
QC	1											1	$250.00
												0	$0.00
Hourly Subtotal	1	0	0	6	0	9	0	6	0	0	1	23	
Cost	$250.00	$0.00	$0.00	$960.00	$0.00	$945.00	$0.00	$750.00	$0.00	$0.00	$115.00		$3,020.00

Phase	6												
#490 - Bid Phase Services	Principal Elec. Eng	Senior Elec. Eng	Lead Elec. Eng	Project Elec. Eng	Staff Elec. Eng	Elec. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$200.00	$185.00	$160.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Fire Marshall Review Comment Resolution				2								2	$320.00
Bidder Review Comment Resolution				2								2	$320.00
Prepare Addenda				2		3		2				7	$885.00
QC	1											1	$250.00
												0	$0.00
Hourly Subtotal	1	0	0	6	0	3	0	2	0	0	0	12	
Cost	$250.00	$0.00	$0.00	$960.00	$0.00	$315.00	$0.00	$250.00	$0.00	$0.00	$0.00		$1,775.00

Phase	7												
#900 - Construction Administration	Principal Elec. Eng	Senior Elec. Eng	Lead Elec. Eng	Project Elec. Eng	Staff Elec. Eng	Elec. EIT	Senior BIM Tech	Senior Eng Tech	Lead Eng Tech	Staff Eng Tech	Tech Editor	Hourly Subtotal	Cost
Billing Rate	$250.00	$200.00	$185.00	$160.00	$135.00	$105.00	$135.00	$125.00	$110.00	$95.00	$115.00		
Construction Meetings (8)						8						8	$840.00
Submittal Reviews				6		10						16	$2,010.00
Payment Application Reviews						4						4	$420.00
Design Clarifications				4		10						14	$1,690.00
Grounding Observations				1		3						4	$475.00
Rough In Observations				1		4						5	$580.00
Above Ceiling Observations				1		4						5	$580.00
Substantial Completion Site Observations				1		4						5	$580.00
Final Site Observations						3						3	$315.00
As-Built Drawings Review				1		4						5	$580.00
Record Drawings				1		4		6				11	$1,330.00
												0	$0.00
Hourly Subtotal	0	0	0	16	0	58	0	6	0	0	0	80	
Cost	$0.00	$0.00	$0.00	$2,560.00	$0.00	$6,090.00	$0.00	$750.00	$0.00	$0.00	$0.00		$9,400.00

Electrical Hours	6	0	0	92	0	132	0	47	0	0	3	277	
Electrical Cost	$1,500.00	$0.00	$0.00	$14,720.00	$0.00	$13,860.00	$0.00	$5,875.00	$0.00	$0.00	$345.00		$35,955.00

Phase	3							
#420 - Design Development (65%)	Principal PLS	Lead PLS	Project PLS	Land Surveyor Party Chief*	Land Surveyor, LSIT*	Two Man Crew	Hourly Subtotal	Cost
Billing Rate	$250.00	$180.00	$150.00	$125.00	$105.00	$230.00		
Task							0	$0.00
Project setup / research	1				1		2	$355.00
Review existing data					2		2	$210.00
Boundary/control research					1		1	$105.00
Set contractor control						2	2	$460.00
Topographic survey						6	6	$1,380.00
Data reduction / DTM					3		3	$315.00
Survey sheet		1			10		11	$1,230.00
Utilities coordination		1			2		3	$390.00
Coordination w/ Civil	1	1			2		4	$640.00
Discipline management / QA/QC	1	2					3	$610.00
							0	$0.00
Hourly Subtotal	3	5	0	0	21	8	37	
Cost	$750.00	$900.00	$0.00	$0.00	$2,205.00	$1,840.00		$5,695.00
Survey Hours	3	5	0	0	21	8	37	
Survey Cost	$750.00	$900.00	$0.00	$0.00	$2,205.00	$1,840.00		$5,695.00

Phase	2
#400 - Life Saftey Code Review and Hazmat Evaluation	

Billing Rate	Unit	Unit Cost	Project Management	Civil	Structural	Mechanical	Electrical	Fire Protection	Land Development	Geotechnical	Survey	Qty	Cost
Copies/Prints/Scans (Letter)	ea	$0.10										0	$0.00
Copies/Prints/Scans (11x17)	ea	$0.20										0	$0.00
Copies/Prints/Scans (Full Size	ea	$1.00										0	$0.00
Teleconference Costing	hr/line	$3.00										0	$0.00
Airfare	ea	$500.00										0	$0.00
Rentals	day	$0.00										0	$0.00
Survey GPS Rental	day	$309.00										0	$0.00
Mileage	mile	$0.585	39	38	38							115	$67.00
Per Diem	man day	$0.00										0	$0.00
Cost			$22.54	$22.23	$22.23	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00		$67.00

Phase	3
#420 - Design Development (65%)	

Billing Rate	Unit	Unit Cost	Project Management	Civil	Structural	Mechanical	Electrical	Fire Protection	Land Development	Geotechnical	Survey	Qty	Cost
Copies/Prints/Scans (Letter)	ea	$0.10										0	$0.00
Copies/Prints/Scans (11x17)	ea	$0.20										0	$0.00
Copies/Prints/Scans (Full Size	ea	$1.00										0	$0.00
Teleconference Costing	hr/line	$3.00										0	$0.00
Airfare	ea	$500.00										0	$0.00
Rentals	day	$0.00										0	$0.00
Survey GPS Rental	day	$309.00									1	1	$309.00
Shipping	ea	$25.00										0	$0.00
Per Diem	man day	$0.00										0	$0.00
Cost			$22.31	$22.23	$22.23	$0.00	$0.00	$0.00	$0.00	$0.00	$331.23		$398.00

Phase	7
#900 - Construction Administration	

Billing Rate	Unit	Unit Cost	Project Management	Civil	Structural	Mechanical	Electrical	Fire Protection	Land Development	Geotechnical	Survey	Qty	Cost
Copies/Prints/Scans (Letter)	ea	$0.10										0	$0.00
Copies/Prints/Scans (11x17)	ea	$0.20										0	$0.00
Copies/Prints/Scans (Full Size	ea	$1.00										0	$0.00
Teleconference Costing	hr/line	$3.00										0	$0.00
Airfare	ea	$500.00										0	$0.00
Rentals	day	$0.00										0	$0.00
Survey GPS Rental	day	$309.00										0	$0.00
Shipping	ea	$25.00										0	$0.00
Parking	day	$16.00										0	$0.00
Hotel	day	$0.00										0	$0.00
Mileage	mile	$0.585	360	144	288	288	288					$1,368	$800.00
Per Diem	man day	$0.00										0	$0.00
Cost			$210.32	$84.24	$168.48	$168.48	$168.48	$0.00	$0.00	$0.00	$0.00		$800.00

CEDR Design Development

North Pole Office Renovation

Job number

PROPOSAL 151

Task	Architect	Project Mgr/Designer	Drafter	Code Specialist	Admin Assist.	Totals
Investigaive Services						
Concepts	0.5	4	8	2	0.5	
	125	720	960	320	60	2185
Life Safety Hazmat	0	1	0	1	0.5	
		180		160	60	400
65%Design Development	0.5	16	16	1	0.5	
	125	2880	1920	160	60	5145
95% CD's	0.5	12	16	2	1	
	125	2160	1920	320	120	4645
100% Cons. Docs.	0	1	6	1	1	
		180	720	160	120	1180
Bidding	0	4	2	2	0.5	
		720	240	320	60	1340
Construction AdminServices	2	30	20	2	2	
	500	5400	2400	320	240	8860
						23755
Total Hours	3.5	68	68	11	6	
Labor Rate	**250**	**180**	**120**	**160**	**120**	
Total Labor Billing	875	12240	8160	1760	720	**23755**

SHANNON & WILSON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

February 9, 2022

Mr. Chris Hodges, P.E.
RESPEC
1028 Aurora Drive
Fairbanks, Alaska 99709

RE: PROPOSAL FOR HAZARDOUS MATERIALS ASSESSMENT, NORTH POLE OLD WATER TREATMENT PLANT OFFICE RENOVATION, NORTH POLE, ALASKA

At your request, we have prepared this proposal to perform a hazardous-materials assessment of the Old Water Treatment Plant office building in North Pole, Alaska. Our objective will be to collect samples of building materials for analysis of asbestos and lead, and to look for other potentially hazardous materials that may be disturbed during this work.

PROJECT UNDERSTANDING

We understand the City of North Pole is planning to renovate this space to update it for occupancy and needs to identify potential hazardous materials to support plans for its renovation. The work includes a thorough renovation of interior spaces; relocation of utility service lines and mechanical equipment; and exterior wall, door, and window improvements.

SCOPE OF SERVICES

Our services will include performing a hazardous materials assessment of the structure, preparing an abatement specification and cost estimate, and bid/construction support as described herein. We have organized our scope and fee estimate as follows:

- Design phases
  - Hazardous Materials Evaluation
  - 65% Design Development
  - 95% Construction Documents
  - 100% Design Construction Documents
- Bidding and Advertising Assistance
- Construction Administration Assistance

2355 Hill Road ■ Fairbanks, Alaska 99709-5326 ■ 907 479-0600 ■ Fax 907 479-5691
■ www.shannonwilson.com ■

Hazardous Materials Evaluation

- Perform a site visit to observe and document hazardous building materials present at the facility, such as asbestos, lead, mold, mercury-containing thermostat switches, illuminated exit signs, and fluorescent lighting fixtures. We assume the site visit can be accomplished over the course of one 8-hour day. We assume the assessment can be performed during normal work hours, and that you will coordinate with current building users for our access to the work area. Our proposal does not include repairs at the sample locations.
- Collect up to 50 samples of building materials from the subject structure for analysis for asbestos by polarized-light microscopy (PLM) by Environmental Protection Agency (EPA) Method 600 (calibrated visual estimate).
- Reanalyze up to 5 samples of building materials for asbestos by PLM (400 point-count).
- Collect up to 10 samples of paint from the subject structure for analysis for lead in paint by EPA Method SW846-7000B.
- Re-analyze up to 5 samples of paint by toxicity characteristic leaching procedure (TCLP) lead analysis to determine whether the paint may be considered a hazardous waste.
- Submit the asbestos and lead samples to EMSL Laboratory in San Leandro, California for analytical testing.
- We will not collect samples of building materials with mold. If we observe mold at the facility, we will document its location and physical appearance, and take photographs.
- Prepare a brief data report including a description of the materials sampled, a summary of results of analysis, and sample locations.
- Prepare a conceptual plan for hazardous materials abatement/management, which will help guide the 65% design specification development.
- Prepare a hazardous materials abatement cost estimate. The cost estimate will include a brief narrative and a line-item spreadsheet listing of the primary cost elements.

We will request a 96-hour analytical turnaround time for these samples. Asbestos sampling will be performed by an Asbestos Hazard Emergency Response Act (AHERA)-certified building inspector.

65% Design (Bid Specifications)

We will prepare bid specifications for the handling and disposal of hazardous materials observed in the structure. We plan to prepare up to three specifications using the

MasterSpec format: Asbestos Abatement, Lead Abatement, and other hazardous materials abatement. The asbestos specification will be prepared by an AHERA Project Designer. We will submit a draft specification for RESPEC review and comment, and a final specification that addresses comments received. We will rely on RESPEC to provide us base drawing(s) of the project area.

95% Design (Over-the-shoulder Review)

We will revise the specification(s) prepared for the 65% review to address RESPEC and owner comments. We assume revisions can be completed within the proposed task budget.

100% Design (Final Construction Documents)

We will address final comments on the specification(s). We assume revisions can be completed within the proposed task budget.

Bidding and Advertising Assistance

We have included up to 8 hours for an AHERA Project Designer and 8 hours for a staff-level environmental professional, should they be needed to address questions that may arise during the project bidding and advertising phase.

Construction Administration Assistance

We have included up to 8 hours for an AHERA Project Designer and 8 hours for a staff-level environmental professional, should they be needed to address questions that may arise during the construction administration phase.

SCHEDULE

We are prepared to perform the hazardous materials evaluation site visit and reporting described herein within four weeks of receipt of your notice to proceed. We will coordinate with you on the schedule for the remaining design, bidding, and construction tasks, which we assume will be conducted in 2022 and 2023.

TERMS AND CONDITIONS

Our services will be performed in accordance with Shannon & Wilson's attached *Standard General Terms and Conditions*. We understand RESPEC will authorize our services described above by providing a subcontract for our review and signature. We will review the

subcontract and may request revisions, which we will discuss with you prior to our signing the document.

We understand the design-phase tasks will be billed on a lump sum basis and the bidding and construction administration assistance tasks will be billed on a time-and-expense basis. Please refer to the attached estimates of probable cost for our estimated fees.

We have attached to this proposal a document titled "*Important Information about Your Geotechnical/Environmental Proposal*," which explains the limitations on our services. Please read it carefully so that you understand what our services can and cannot do for you.

If this proposal meets with your approval, please provide a purchase order, which will constitute your authorization for us to proceed with this scope of services. The estimated fee for this work is firm for 60 days from the date of this proposal. Should authorization to begin be received after 60 days, we will review our estimated fee to determine if any price changes have occurred that would affect the estimated cost of the project.

We look forward to the opportunity to work with you on this project and appreciate your confidence in our firm. If you have any questions or comments, or wish to revise the scope of our services, please contact me at (907) 479-0600 or chris.darrah@shanwil.com.

Sincerely,

SHANNON & WILSON

Christopher Darrah, CPG, CPESC
AHERA Building Inspector/Project Designer
Vice President

Enc. Estimate of Probable Cost (three sheets)
Standard General Terms and Conditions
Important Information about Your Geotechnical/Environmental Proposal

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Project No:	108739-P
Project Name:	North Pole Old WTP Hazmat
Date:	February 9, 2022
Client:	RESPEC
By:	cbd

ESTIMATE OF PROBABLE COST

	Rate	Quantity	Subtotal	Total
Hazmat Evaluation				
On-site Assessment				
AHERA Inspector	$240 /hr	8 hrs	$1,920	
Sampling support	$95 /hr	16 hrs	$1,520	
Sampling expenses	$200 /day	1 day	$200	
		Subtotal	$3,640	
Laboratory Testing				
Asbestos by PLM - visual estimate	$14 /each	50 sample	$700	
Asbestos by PLM - 400 point count	$50 /each	5 sample	$250	
Lead-in-paint	$19 /each	10 sample	$190	
TCLP lead	$90 /each	5 sample	$450	
Markup on lab (15%)			$239	
		Subtotal (rounded)	$1,830	
Reporting				
AHERA Inspector/QA	$240 /hr	4 hrs	$960	
Report preparation	$95 /hr	20 hrs	$1,900	
Editing/document preparation	$80 /hr	1 hrs	$80	
Expenses			$30	
		Subtotal	$2,970	
Abatement Concept Design, Cost Estimate				
AHERA Project Designer	$240 /hr	10 hrs	$2,400	
Staff support	$95 /hr	16 hrs	$1,520	
Editing/document preparation	$80 /hr	1 hrs	$80	
Expenses			$30	
		Subtotal	$4,030	
			Task Subtotal	**$12,470**
65% Design (Abatement Specification)				
AHERA Project Designer	$240 /hr	12 hrs	$2,880	
Staff support	$95 /hr	40 hrs	$3,800	
			Task Subtotal	**$6,680**
95% Design (Over the shoulder review)				
AHERA Project Designer	$240 /hr	8 hrs	$1,920	
Staff support	$95 /hr	8 hrs	$760	
			Task Subtotal	**$2,680**
100% Construction Documents				
AHERA Project Designer	$240 /hr	4 hrs	$960	
Staff support	$95 /hr	8 hrs	$760	
			Task Subtotal	**$1,720**
			TOTAL	**$23,550**

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Project No:	108739-P
Project Name:	North Pole Old WTP Hazmat
Date:	February 9, 2022
Client:	RESPEC
By:	cbd

ESTIMATE OF PROBABLE COST

	Rate	Quantity	Subtotal	Total
Bidding and Advertising Assistance				
AHERA Project Designer	$240 /hr	8 hr	$1,920	
Staff support	$95 /hr	8 hrs	$760	
			Subtotal	$2,680
			TOTAL	**$2,680**

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Project No:	108739-P
Project Name:	North Pole Old WTP Hazmat
Date:	February 9, 2022
Client:	RESPEC
By:	cbd

ESTIMATE OF PROBABLE COST

	Rate	Quantity	Subtotal	Total
Construction Administration Assistance				
AHERA Project Designer	$240 /hr	8 hr	$1,920	
Staff support	$95 /hr	8 hrs	$760	
			Subtotal	$2,680
			TOTAL	**$2,680**

SHANNON & WILSON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Attachment to and part of Proposal:	108739-P
Date:	02-09-2022
To:	Chris Hodges, P.E.
	RESPEC
Re:	Hazmat Assessment for Old North Pole Water Treatment Plant Office Renovation

Standard General Terms and Conditions

ARTICLE 1–SERVICES OF SHANNON & WILSON

Shannon & Wilson's scope of work (Work) shall be limited to those services expressly set forth in its Proposal and is subject to the terms and conditions set forth herein.

Shannon & Wilson shall procure and maintain all business and professional licenses and registrations necessary to provide its services. Upon Client's request (and for additional compensation, if not already included in Shannon & Wilson's Proposal), Shannon & Wilson shall assist Client in attempting to obtain, or on behalf of Client and in Client's name attempt to obtain, those permits and approvals required for the project for which Shannon & Wilson's services are being rendered.

Client acknowledges, depending on field conditions encountered and subsurface conditions discovered, the number and location of borings, the number and type of field and laboratory tests, and other similar items as deemed necessary by Shannon & Wilson in the exercise of due care, may need to be increased or decreased; if such modifications are approved by Client, Shannon & Wilson's compensation and schedule shall be equitably adjusted.

If conditions actually encountered at the project site differ materially from those represented by Client and/or shown or indicated in the contract documents, or are of an unusual nature that materially differ from those ordinarily encountered and generally recognized as inherent for the locality and character of the services provided for in Shannon & Wilson's scope of work, Shannon & Wilson's compensation and schedule shall be equitably adjusted.

Without increasing the scope of work, price, or schedule contained in Shannon & Wilson's Proposal, Shannon & Wilson may employ such subcontractors as Shannon & Wilson deems necessary to assist in furnishing its services.

If Shannon & Wilson's scope of work is increased or decreased by Client, Shannon & Wilson's compensation and schedule shall be equitably adjusted.

ARTICLE 2–TIMES FOR RENDERING SERVICES

Shannon & Wilson shall perform its services in accordance with the schedule set forth in its Proposal.

If Shannon & Wilson's Proposal sets forth specific periods of time for rendering services, or specific dates by which services are to be completed, and such periods of time or dates are extended or delayed through no fault of Shannon & Wilson, Shannon & Wilson's compensation and schedule shall be equitably adjusted.

If Shannon & Wilson's schedule is increased or decreased by Client, Shannon & Wilson's compensation shall be equitably adjusted.

ARTICLE 3–FEES AND EXPENSES FOR RENDERING SERVICES

Fees for Professional Services

Fees for Shannon & Wilson's services are based on the actual time expended on the project, including travel, by our personnel and will be computed by multiplying the actual number of hours worked times the following rates. These rates are for the 2021 calendar year. At the end of each calendar year, our rates will be adjusted for the next calendar year.

Officers/Associates		**Engineer/Geologist/Hydrologist/Environmental**		**Field and Lab Technician/Drafter/Technical Assistant**		*Overtime*
Officers/VP	$240.00	Senior Professional III	$160.00	Senior Technical Services (Senior, IV)	$98.00	$122.50
Senior/Associate	$190.00	Senior Professional II	$145.00	Technical Services (III, II, I)	$85.00	$106.25
Associate	$180.00	Senior Professional I	$130.00			
		Professional IV	$115.00	**Word Processing/Reproduction/Records/Clerical**		
Special Services		Professional III	$110.00	Senior Office Services (Senior, V, IV)	$95.00	$118.75
Computer Analyst	$200.00	Professional II	$95.00	Office Services (III, II, I)	$80.00	$100.00
Information Resources Specialist	$135.00	Professional I	$85.00			

Expert Testimony

Hourly rates will be doubled for time spent actually providing expert testimony in court or depositions.

Reimbursable Expenses

Expenses other than salary costs that are directly attributable to our professional services will be invoiced at our cost plus 15%. Examples include, but are not limited to, expenses for out-of-town travel and living, information processing equipment, instrumentation and field equipment rental, special fees and permits, premiums for additional or special insurance where required, telecommunication charges, local mileage and parking, use of rental vehicles, taxi, reproduction, local and out-of-town delivery service, express mail, photographs, laboratory equipment fees, shipping charges, and supplies.

ARTICLE 4–PAYMENTS TO SHANNON & WILSON

Invoices shall be prepared in accordance with Shannon & Wilson's standard invoicing practices and shall be submitted to Client by Shannon & Wilson monthly. The amount billed in each invoice shall be calculated as set forth in Shannon & Wilson's Proposal.

Unless Shannon & Wilson's Proposal contains a fixed lump-sum price, Shannon & Wilson's actual fees may exceed the estimate contained in its Proposal. Shannon & Wilson shall not exceed the estimate contained in its Proposal by more than 10% without the prior written consent of Client; provided however, unless the Client authorizes additional funds in excess of the estimate contained in Shannon & Wilson's Proposal, Shannon & Wilson shall have no obligation to continue Work on the project.

Invoices are due and payable within 30 days of receipt. If Client fails to pay Shannon & Wilson's invoice within 30 days after receipt, the amounts due Shannon & Wilson shall accrue interest at the rate of 1.5% per month (or the maximum rate of interest permitted by law, if less) after the 30th day. In addition, Shannon & Wilson may, after giving seven days' written notice to Client, suspend services under this Agreement until Shannon & Wilson has been paid in full.

If Client disputes Shannon & Wilson's invoice, only the disputed portion(s) may be withheld from payment, and the undisputed portion(s) shall be paid.

Records of Shannon & Wilson's direct and indirect costs and expenses pertinent to its compensation under this Agreement shall be kept in accordance with generally accepted accounting practices and applicable federal, state, or local laws and regulations. Upon request, such records shall be made available to Client for inspection on Shannon & Wilson's premises and copies provided to Client at cost.

ARTICLE 5–CLIENT'S RESPONSIBILITIES

Client shall grant or obtain free access to the project site for all equipment and personnel necessary for Shannon & Wilson to perform its services.

ARTICLE 6–STANDARD OF CARE/ABSENCE OF WARRANTIES/NO RESPONSIBILITY FOR SITE SAFETY OR CONTRACTOR'S PERFORMANCE

Standard of Care

The standard of care for all professional services performed or furnished by Shannon & Wilson under this Agreement shall be the skill and care ordinarily exercised by other members of Shannon & Wilson's profession, providing the same or similar services, under the same or similar circumstances, at the same time and locality as the services were provided by Shannon & Wilson. The construction, alteration, or repair of any object or structure by Shannon & Wilson shall be performed in a good and workmanlike manner in accordance with general industry standards and conform to this Agreement. Shannon & Wilson warrants for one year from substantial completion of the Work, all goods delivered hereunder shall be new and free from defects in material or workmanship, and shall conform to the specifications, drawings, or sample(s) specified or furnished, if any, and shall be merchantable and fit for their intended purpose(s). Shannon & Wilson warrants that Shannon & Wilson has good and marketable title to all goods delivered hereunder, and that all goods delivered hereunder shall be free and clear of all claims of superior title, liens, and encumbrances of any kind.

Subsurface explorations and testing identify actual subsurface conditions only at those points where samples are taken, at the time they are taken. Actual conditions at other locations of the project site, including those inferred to exist between the sample points, may differ significantly from conditions that exist at the sampling locations. The passage of time or intervening causes may cause the actual conditions at the sampling locations to change as well.

Interpretations and recommendations made by Shannon & Wilson shall be based solely upon information available to Shannon & Wilson at the time the interpretations and recommendations are made.

Shannon & Wilson shall be responsible for the technical accuracy of its services, data, interpretations, and recommendations resulting therefrom, and Client shall not be responsible for discovering deficiencies therein. Shannon & Wilson shall correct any substandard Work without additional compensation, except to the extent that such inaccuracies are directly attributable to deficiencies in Client-furnished information.

No Warranties

Shannon & Wilson makes no guarantees or warranties, express or implied, under this Agreement or otherwise, about Shannon & Wilson's professional services.

Client-Furnished Documents

Shannon & Wilson may use requirements, programs, instructions, reports, data, and information furnished by Client to Shannon & Wilson in performing its services under this Agreement. Shannon & Wilson may rely on the accuracy and completeness of requirements, programs, instructions, reports, data, and other information furnished by Client to Shannon & Wilson. Client shall, only to the fullest extent permitted by law, waive any claims against Shannon & Wilson and its subcontractors, and indemnify and hold Shannon & Wilson and its subcontractors harmless from any claims, liability, or expenses (including reasonable attorneys' fees and costs) arising from Shannon & Wilson's reliance on Client-furnished information, except to the extent of Shannon & Wilson's and its subcontractor's negligent or wrongful acts, errors, omissions, or breach of contract.

Site Damage

Shannon & Wilson shall take reasonable precautions to minimize damage to the project site, but it is understood by Client that, in the normal course of Shannon & Wilson's services, some project site damage may occur, and the correction of such damage is not part of this Agreement unless so stated in Shannon & Wilson's Proposal. Client shall, only to the fullest extent permitted by law, waive any claims against Shannon & Wilson and its subcontractors, and indemnify and hold Shannon & Wilson and its subcontractors harmless from any claims, liability, or expenses (including reasonable attorneys' fees and costs) arising from any project site damage caused by Shannon & Wilson, except to the extent of Shannon & Wilson's and its subcontractor's negligent or wrongful acts, errors, omissions, or breach of contract.

Buried Structures

If there are any buried structures and/or utilities on the project site where subsurface explorations are to take place, Client shall provide Shannon & Wilson with a plan showing their existing locations. Shannon & Wilson shall contact a utility locator service to request that they identify any public utilities. Shannon & Wilson shall use reasonable care and diligence to avoid contact with buried structures and/or utilities as shown. Shannon & Wilson shall not be liable for any loss or damage to buried structures and/or utilities resulting from inaccuracy of the plans, or lack of plans, or errors by the locator service relating to the location of buried structures and/or utilities. Client shall, only to the fullest extent permitted by law, waive any claims against Shannon & Wilson and its subcontractors, and indemnify and hold Shannon & Wilson and its subcontractors harmless from any claims, liability, or expenses (including reasonable attorneys' fees and costs) arising from damage to buried structures and/or utilities caused by Shannon & Wilson's sampling, except to the extent of Shannon & Wilson's and its subcontractor's negligent or wrongful acts, errors, omissions, or breach of contract.

Aquifer Cross-Contamination

Despite the use of due care, unavoidable contamination of soil or groundwater may occur during subsurface exploration when drilling or sampling tools are advanced through a contaminated area, linking it to an aquifer, underground stream, or other hydrous body not previously contaminated and capable of spreading contaminants off the project site. Because Shannon & Wilson is powerless to totally eliminate this risk despite use of due care, and because sampling is an essential element of Shannon & Wilson's services, Client shall, only to the fullest extent permitted by law, waive any claims against Shannon & Wilson and its subcontractors, and indemnify and hold Shannon & Wilson and its subcontractors harmless from any claims, liability, or expenses (including reasonable attorneys' fees and costs) arising from cross-contamination caused by Shannon & Wilson's sampling, except to the extent of Shannon & Wilson's and its subcontractor's negligent or wrongful acts, errors, omissions, or breach of contract.

Opinions of Probable Construction Costs

If opinions of probable construction costs are included in Shannon & Wilson's Proposal, Shannon & Wilson's opinions of probable construction costs shall be made on the basis of its experience and qualifications and represent its judgment as a professional generally familiar with the industry. Opinions of probable construction costs are based, in part, on approximate quantity evaluations that are not accurate enough to permit contractors to prepare bids. Further, since Shannon & Wilson

has no control over the cost of labor, materials, equipment, or services furnished by others, the contractor's actual or proposed construction methods or methods of determining prices, competitive bidding, or market conditions, Shannon & Wilson cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of the components of probable construction cost prepared by Shannon & Wilson. If Client or any contractor wishes greater assurance as to probable construction cost, Client or contractor shall employ an independent cost estimator.

Review of Contractor's Shop Drawings and Submittals

If review of a contractor's shop drawings and submittals are included in Shannon & Wilson's Proposal, Shannon & Wilson shall review and take appropriate action on the contractor's submittals, such as shop drawings, product data, samples, and other data that the contractor is required to submit, but solely for the limited purpose of checking for general overall conformance with Shannon & Wilson's design concept. This review shall not include a review of the accuracy or completeness of details, such as quantities; dimensions; weights or gauges; fabrication processes; construction means, methods, sequences, or procedures; coordination of the Work with other trades; or construction safety precautions; all of which are the sole responsibility of the contractor. Shannon & Wilson's review shall be conducted with reasonable promptness while allowing sufficient time, in Shannon & Wilson's judgment, to permit adequate review. Review of a specific item shall not be construed to mean that Shannon & Wilson has reviewed the entire assembly of which the item is a component. Shannon & Wilson shall not be responsible for any deviations by the contractor in the shop drawings and submittals from the construction documents that are not brought to the attention of Shannon & Wilson by the contractor in writing.

Construction Observation

If construction observation is included in Shannon & Wilson's Proposal, Shannon & Wilson shall visit the project site at intervals Shannon & Wilson deems appropriate, or as otherwise agreed to in writing by Client and Shannon & Wilson, in order to observe and keep Client generally informed of the progress and quality of the Work. Such visits and observations are not intended to be an exhaustive check or a detailed inspection of any contractor's work, but rather are to allow Shannon & Wilson, as a professional, to become generally familiar with the work in progress in order to determine, in general, whether the work is progressing in a manner indicating that the work, when fully completed, will be in accordance with Shannon & Wilson's general overall design concept. Shannon & Wilson's authority shall be limited to observing, making technical comments regarding general overall compliance with Shannon & Wilson's design concept, and rejecting any work that it becomes aware of that does not comply with Shannon & Wilson's general overall design concept. Shannon & Wilson's acceptance of any non-conforming work containing latent defects or failure to reject any non-conforming work not inspected by Shannon & Wilson shall not impose any liability on Shannon & Wilson or relieve any contractor from complying with their contract documents. All construction contractors shall be solely responsible for construction site safety, the quality of their work, and adherence to their contract documents. Shannon & Wilson shall have no authority to direct any contractor's actions or stop any contractor's work.

If Shannon & Wilson is not retained to provide construction observation of the implementation of its design recommendations, Client shall, only to the fullest extent permitted by law, waive any claims against Shannon & Wilson, and indemnify and hold Shannon & Wilson harmless from any claims, liability, or expenses (including reasonable attorneys' fees and costs) arising from the implementation of Shannon & Wilson's design recommendations, except to the extent of Shannon & Wilson's and its subcontractor's negligent or wrongful acts, errors, omissions, or breach of contract.

No Responsibility for Site Safety

Except for its own subcontractors and employees, Shannon & Wilson shall not supervise, direct, have control over, or authority to stop any contractor's work; have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected by any contractor; be responsible for safety precautions and programs incident to any contractor's work; or be responsible for any failure of any contractor to comply with laws and regulations applicable to the contractor; all of which are the sole responsibility of the construction contractors. This requirement shall apply continuously, regardless of time or place, and shall in no way be altered because a representative of Shannon & Wilson is present at the project site performing his/her duties. Notwithstanding anything to the contrary, Shannon & Wilson shall never be deemed to have assumed responsibility for the project's site safety by either contract or conduct. No act or direction by Shannon & Wilson shall be deemed the exercise of supervision or control of any contractor's employees or the direction of any contractor's performance. Any direction provided by Shannon & Wilson shall be deemed solely to ensure the contractor's general overall compliance with Shannon & Wilson's design concept.

No Responsibility for Contractor's Performance

Except for its own subcontractors and employees, Shannon & Wilson shall not be responsible for safety precautions, the quality of any contractor's work, or any contractor's failure to furnish or perform their work in accordance with their contract documents.

Except Shannon & Wilson's own employees and its subcontractors, Shannon & Wilson shall not be responsible for the acts or omissions of any contractor, subcontractor, or supplier, or other persons at the project site, or otherwise furnishing or performing any work, or for any decision based on interpretations or clarifications of Shannon & Wilson's design concept given without the consultation and concurrence of Shannon & Wilson.

Approval of Contractor's Applications for Payment

If approval of a contractor's applications for payment are included in Shannon & Wilson's Proposal, Shannon & Wilson shall review the amounts due the contractor and issue a recommendation about payment to Client. Shannon & Wilson's review and approval shall be limited to an evaluation of the general progress of the work and the information contained in the contractor's application for payment and a representation by Shannon & Wilson that to the best of Shannon & Wilson's knowledge, the contractor has performed work for which payment has been requested, subject to further testing and inspection upon substantial completion. The issuance of a recommendation for payment shall not be construed as a representation that Shannon & Wilson has made an exhaustive check or a detailed or continuous inspection check of the quality or quantity of the contractor's work; approved the contractors means, methods, sequences, procedures, or safety precautions; or that contractor's subcontractors, laborers, and suppliers have been paid.

ARTICLE 7–CONFIDENTIALITY AND USE OF DOCUMENTS

Confidentiality

Shannon & Wilson agrees to keep confidential and to not disclose to any person or entity (other than Shannon & Wilson's employees and subcontractors) without the prior consent of Client, all information furnished to Shannon & Wilson by Client or learned by Shannon & Wilson as a result of its Work on the project; provided however, that these provisions shall not apply to information that is in the public domain through no fault of Shannon & Wilson, was previously known to Shannon & Wilson, or was independently acquired by Shannon & Wilson from third parties who were under no obligation to Client to keep said information confidential. This paragraph shall not be construed to in any way restrict Shannon & Wilson from making any disclosures required by law. Client agrees that Shannon & Wilson may use and publish Client's name and a general description of Shannon & Wilson's services with respect to the project in describing Shannon & Wilson's experience and qualifications to others.

Copyrights and Patents

Shannon & Wilson shall indemnify, hold harmless, and defend Client from any and all actions, damages, demands, expenses (including reasonable attorneys' fees and costs), losses, and liabilities arising out of any claims that any goods or services furnished by subcontractor infringe any patent, trademark, trade name, or copyright.

Use of Documents

All documents prepared by Shannon & Wilson are instruments of service with respect to the project, and Shannon & Wilson shall retain a copyrighted ownership and property interest therein (including the right of reuse) whether or not the project is completed.

Shannon & Wilson grants to Client a non-exclusive, irrevocable, unlimited, royalty-free license to use any documents prepared by Shannon & Wilson for Client. Client may make and retain copies of such documents for their information and use. Such documents are not intended or represented to be suitable for reuse by Client, or others, after the passage of time, on extensions of the project, or on any other project. Any such reuse without written verification or adaptation by Shannon & Wilson, as appropriate for the specific purpose intended, shall be at Client's sole risk, and Client shall, only to the fullest extent permitted by law, waive any claims against Shannon & Wilson and its subcontractors, and indemnify and hold Shannon & Wilson and its subcontractors harmless from any claims, liability, or expenses (including reasonable attorneys' fees and costs) arising from such reuse, except to the extent of Shannon & Wilson's and its subcontractor's negligent or wrongful acts, errors, omissions, or breach of contract. Any verification or adaptation of the documents for extensions of the project or for any other project by Shannon & Wilson shall entitle Shannon & Wilson to additional compensation to be agreed upon by Client and Shannon & Wilson.

Copies of documents that may be relied upon by Client are limited to the printed copies (also known as hard copies) that are signed or sealed by Shannon & Wilson. Text, data, or graphics files in electronic media format are furnished solely for the convenience of Client. Any conclusion or information obtained or derived from such electronic files shall be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

Because data stored in electronic media can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving an electronic file agrees that it shall perform acceptance tests or procedures within 60 days after its receipt, after which, unless notice of any errors is given in writing to the delivering party, the receiving party shall be deemed to have accepted the data thus transferred. Any errors reported within the 60-day acceptance period shall be corrected by the party delivering the electronic files at their sole expense. Shannon & Wilson shall not be responsible for maintaining documents stored in electronic media format after acceptance by Client.

When transferring documents in electronic media format, neither Client nor Shannon & Wilson makes any representations as to long-term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used for the document's creation.

ARTICLE 8–INSURANCE

Shannon & Wilson shall purchase and maintain during the term of this contract the following insurance coverage at its sole expense:

Commercial General Liability

$1,000,000 each occurrence/$2,000,000 annual aggregate Bodily Injury/Property Damage Combined Single Limit, including Blanket Contractual Liability, Broad Form Products and Completed Operations, Explosion/Collapse/Underground (XCU) Exposures, and Washington Stop Gap coverage.

Auto Liability

$1,000,000 Bodily Injury/Property Damage Combined Single Limit, including Owned, Hired, and Non-Owned Liability coverage.

Umbrella Liability

$4,000,000 Bodily Injury/Property Damage combined Single Limit in excess of Commercial General Liability, Auto Liability, and Employer's Liability.

Workers' Compensation

Statutory in monopolistic states and $500,000 per accident/$500,000 per disease/$500,000 disease policy aggregate Employer's Liability in non-monopolistic, including if applicable, U.S. Longshore and Harbor Workers' coverage.

Professional Liability

$5,000,000 per claim/$5,000,000 annual aggregate for professional errors and omissions, including Pollution Liability coverage.

If requested in writing by Client, Shannon & Wilson shall name Client as an additional insured on its Commercial General Liability policy.

If requested in writing by Client, Shannon & Wilson shall deliver to Client certificates of insurance evidencing such coverage. Such certificates shall be furnished before commencement of Shannon & Wilson's services.

Client shall cause Shannon & Wilson and its subcontractors to be listed as additional insureds on any Commercial General Liability insurance carried by Client that is applicable to the project.

Client shall require the project owner to require the general contractor on the project to purchase and maintain Commercial General Liability, Automobile Liability, Workers' Compensation, and Employer's Liability insurance, with limits no less than set forth above, and to cause Shannon & Wilson and its subcontractors to be listed as additional insureds on that Commercial General Liability insurance. Client shall require the project owner include the substance of this paragraph in the prime construction contract.

All insurance policies shall contain a waiver of subrogation.

ARTICLE 9–HAZARDOUS ENVIRONMENTAL CONDITIONS

Disclosure of the Existence of Hazardous Environmental Conditions

Client has disclosed to Shannon & Wilson all data known to Client concerning known or suspected hazardous environmental conditions, including but not limited to, the existence of all asbestos, PCBs, petroleum, hazardous waste, or radioactive material, if any, located at or near the project site, including its type, quantity, and location, or has represented to Shannon & Wilson that, to the best of Client's knowledge, no hazardous environmental conditions exist at or near the project site.

If any hazardous environmental condition is encountered or believed to exist, Shannon & Wilson shall notify Client and, to the extent required by applicable laws and regulations, the project site owner, and appropriate governmental officials.

Disposal of Non-Hazardous Samples and Hazardous or Toxic Substances

All substances on, in, or under the project site, or obtained from the project site as samples or as byproducts (e.g., drill cuttings and fluids) of the sampling process, are the project site owner's property. Shannon & Wilson shall preserve such samples for 45 calendar days after Shannon & Wilson's issuance to Client of the final instrument of service that relates to the data obtained from them. Shannon & Wilson shall dispose of all non-hazardous samples and sampling process byproducts in accordance with applicable law; provided however, any samples or sampling process byproducts that are, or are believed to be, affected by regulated contaminants, shall be packaged by Shannon & Wilson in accordance with applicable law, and turned over to Client or left on the project site. Shannon & Wilson shall not transport, store, treat, dispose of, or arrange for the transportation, storage, treatment, or disposal of, any substances known, believed, or suspected to be affected by regulated contaminants, nor shall Shannon & Wilson subcontract for such activities.

Shannon & Wilson shall, at Client's request (and for additional compensation, if not already included in Shannon & Wilson's Proposal), help Client or the project site owner identify appropriate alternatives for transportation, storage, treatment, or disposal of such substances, but Shannon & Wilson shall not make any independent determination about the selection of a transportation, storage, treatment, or disposal facility.

Client or the project site owner shall sign all manifests for the transportation, storage, treatment, or disposal of substances affected by regulated contaminants; provided however, notwithstanding any other provisions of this Agreement to the contrary if Client directs Shannon & Wilson, Shannon & Wilson's employees, or Shannon & Wilson's agents to sign such manifests and/or to hire for Client or the project site owner a contractor to transport, store, treat, or dispose of the contaminated substances, Shannon & Wilson shall do so only as Client's disclosed agent.

Contaminated Equipment and Consumables

Client shall reimburse Shannon & Wilson for the cost of decontaminating field or laboratory equipment that is contaminated by regulated materials encountered at the project site and for the cost of disposal and replacement of contaminated consumables. In some instances, the cost of decontamination may exceed the fair market value of the equipment, were it not contaminated, together with the cost of properly transporting and disposing of the equipment. In such instances, Shannon & Wilson will notify Client and give Client the option of paying for decontamination or purchasing the equipment at its fair market value immediately prior to contamination. If Client elects to purchase equipment, Client and Shannon & Wilson will enter into a specific agreement for that purpose. Any equipment that cannot be decontaminated shall be considered a consumable.

Client's Liability for Hazardous or Toxic Materials

Except to the extent caused by Shannon & Wilson's and its subcontractor's negligent or wrongful acts, errors, omissions, or breach of contract, and only to the maximum extent permitted by law, Client shall indemnify and hold harmless Shannon & Wilson, its subcontractors, and their partners, officers, directors, employees, and agents, from and against any and all actions (whether sounding in tort, contract (express or implied), warranty (express or implied), statutory liability, strict liability, or otherwise), claims (including, but not limited to, claims for bodily injury, death, property damage (including bodily injury, death, or property damage to Shannon & Wilson's own employees), or arising under CERCLA, MTCA, or similar federal, state, or local environmental laws), costs, damages (including without limitation, economic, non-economic, general, special, incidental, consequential), demands, expenses (including, but not limited to, reasonable attorneys' fees and costs of defense), fines, judgments, liens, liabilities, and penalties of any kind whatsoever, arising from the arrangement for and/or ownership, operation, generation, labeling, transportation, storage, disposal, treatment, release, or threatened release of any hazardous or toxic materials, as defined by CERCLA, MTCA, or similar federal, state, or local environmental laws, on and/or from the project site.

ARTICLE 10–ALLOCATION OF RISK

Indemnification of Client

To the maximum extent permitted by law, Shannon & Wilson shall indemnify and hold harmless Client, its appointed and elected officials, partners, officers, directors, employees, and agents, from and against any and all actions (whether sounding in tort, contract (express or implied), warranty (express or implied), statutory liability, strict liability, or otherwise), claims (including, but not limited to, claims for bodily injury, death, property damage (including bodily injury, death, or property damage to Shannon & Wilson's own employees), or arising under CERCLA, MTCA, or similar federal, state, or local environmental laws), costs, damages (including without limitation, economic, non-economic, general, special, incidental, consequential), demands, expenses (including, but not limited to, reasonable attorneys' fees and costs of defense), fines, judgments, liens, liabilities, and penalties of any kind whatsoever; arising from the negligent or wrongful acts, errors, omissions, or breach of contract or warranty express or implied, by Shannon & Wilson or any of its subcontractors; but only to the extent of Shannon & Wilson's and its subcontractor's relative degree of fault. In furtherance of these obligations, and only with respect to Client, its appointed and elected officials, partners, officers, directors, employees, and agents, Shannon & Wilson waives any immunity it may have or limitation on the amount or type of damages imposed under any industrial insurance, workers' compensation, disability, employee benefit, or similar laws. Shannon & Wilson acknowledges that this waiver of immunity was mutually negotiated.

Limitation of Shannon & Wilson's Liability

A. Total Liability Limited to Insurance Proceeds

Notwithstanding any other provisions of this Agreement, and only to the maximum extent permitted by law, the total liability, in the aggregate, of Shannon & Wilson, its subcontractors, and their partners, officers, directors, employees, agents and, or any of them, to Client and/or anyone claiming by, through, or under Client, for any and all actions (whether sounding in tort, contract (express or implied), warranty (express or implied), statutory liability, strict liability, or otherwise), claims (including, but not limited to, claims for bodily injury, death, property damage (including bodily injury, death, or property damage to Shannon & Wilson's own employees), or arising under CERCLA, MTCA, or similar federal, state, or local environmental laws), costs, damages (including without limitation, economic, non-economic, general, special, incidental, consequential), demands, expenses (including, but not limited to, reasonable attorneys' fees and costs of defense), fines, judgments, liens, liabilities, and penalties of any kind whatsoever, arising out of, resulting from, or in any way related to the project or this Agreement, shall be limited to the insurance proceeds payable on behalf of or to Shannon & Wilson by any insurance policies applicable thereto. If you are unwilling or unable to limit our liability in this manner, we will negotiate this limitation and its associated impact on our approach, scope of work, schedule, and price, with you. You must notify us in writing before we commence our Work of your intention to negotiate this limitation and its associated impact on our approach, scope of work, schedule, and price. Absent your prior written notification to the contrary, we will proceed on the basis that our total liability is limited as set forth above.

B. Professional Liability Limited to $50,000 or 10% of Fee

With respect to professional errors or omissions only, notwithstanding any other provisions of this Agreement, and only to the maximum extent permitted by law, the total liability, in the aggregate, of Shannon & Wilson, its subcontractors, and their partners, officers, directors, employees, agents, or any of them, to Client and/or anyone claiming by, through, or under Client, for any and all actions (whether sounding in tort, contract (express or implied), warranty (express or implied),

statutory liability, strict liability, or otherwise), claims (including, but not limited to, claims for bodily injury, death, property damage (including bodily injury, death, or property damage to Shannon & Wilson's own employees) or arising under CERCLA, MTCA, or similar federal, state, or local environmental laws), costs, damages (including without limitation, economic, non-economic, general, special, incidental, consequential), demands, expenses (including, but not limited to, reasonable attorneys' fees and costs of defense), fines, judgments, liens, liabilities, and penalties of any kind whatsoever, arising out of, resulting from, or in any way related to the professional errors or omissions of Shannon & Wilson, its subcontractors, or their partners, officers, directors, employees, agents or, or any of them, shall not exceed the aggregate total amount of $50,000.00 or 10% of the total compensation actually paid to Shannon & Wilson under this Agreement, whichever is greater. If you are unwilling or unable to limit our professional liability to these sums, we will negotiate the amount of this limitation and its associated impact on our approach, scope of work, schedule, and price, with you. You must notify us in writing before we commence our Work of your intention to negotiate the amount of this limitation and its associated impact on our approach, scope of work, schedule, and price. Absent your prior written notification to the contrary, we will proceed on the basis that our total professional liability is limited to $50,000.00 or 10% of the total compensation actually paid to Shannon & Wilson under this Agreement, whichever is greater.

ARTICLE 11–MISCELLANEOUS

Termination

This Agreement may be terminated without further obligation or liability by either party, with or without cause (for convenience), upon 30 days prior written notice to the other. Shannon & Wilson shall be entitled to compensation for all services performed prior to the termination of this Agreement. This Agreement may be terminated by the non-breaching party upon any breach of this Agreement that remains uncured after 10 days' notice to the breaching party by the non-breaching party. Upon payment of all amounts due Shannon & Wilson, Client shall be entitled to copies of Shannon & Wilson's files and records pertaining to services performed prior to the termination of this Agreement.

Successors, Assigns, and Beneficiaries

This Agreement shall be binding upon each party's assigns, successors, executors, administrators, and legal representatives.

Neither Client nor Shannon & Wilson may assign or transfer any rights under or interest in this Agreement without the written consent of the other. No assignment shall release or discharge the assignor from any duty or responsibility under this Agreement.

Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Client or Shannon & Wilson to any third party. All duties and responsibilities undertaken under this Agreement shall be for the sole and exclusive benefit of Client and Shannon & Wilson. There are no intended third-party beneficiaries. Notwithstanding the foregoing, should a court find a third party to be a beneficiary of this Agreement, it is the intent of the parties that the judicially created third-party beneficiary be bound by and subject to all of the terms and conditions of this Agreement.

Jurisdiction, Venue, and Choice of Law

Any applicable statute of limitation shall be deemed to commence running on the date that the claimant knew, or should have known, of the facts giving rise to their claims, but in no event later than the date of substantial completion of Shannon & Wilson's services under this Agreement. To the maximum extent permitted by law, as a condition precedent to commencing a judicial proceeding, a party shall give written notice of their claims, including all amounts claimed and the factual basis for their claims, to the other party within one year of when the claimant knew, or should have known, of the facts giving rise to their claims, but in no event later than one year from the date of substantial completion of Shannon & Wilson's services under this Agreement. As a condition precedent to commencing a judicial proceeding, a party shall first submit their claims to non-binding mediation through and in accordance with the rules of the American Arbitration Association.

This Agreement shall be construed in accordance with and governed by the laws (except choice and conflict of law provisions) of the state in which the project is located.

Any judicial action shall be brought in the state in which the project is located.

Attorneys' Fees

Should any dispute or claims arise out of this Agreement, whether sounding in tort, contract (express or implied), warranty (express or implied), statutory liability, strict liability, or otherwise, the prevailing party shall be entitled to an award of their reasonable attorneys' fees and costs, including upon appeal and in the enforcement of any judgment. Should neither party prevail on all of their claims or receive all of the relief they sought, then the substantially prevailing party shall be awarded their reasonable attorneys' fees and costs, including upon appeal and in the enforcement of any judgment.

Waiver

A waiver of any of the terms and conditions or breaches of this Agreement shall not operate as a subsequent waiver.

Headings

The headings used in this Agreement are for general ease of reference only. They have no meaning and are not part of this Agreement.

Integration

This Agreement, together with all attachments hereto, are incorporated by reference into each other, and supersede all prior written and oral discussions, representations, negotiations, and agreements on the subject matter of this Agreement and represent the parties' complete, entire, and final understanding of the subject matter of this Agreement.

Survival

Notwithstanding completion or termination of this Agreement for any reason, all representations, warranties, limitations of liability, and indemnification obligations contained in this Agreement shall survive such completion or termination and remain in full force and effect until fulfilled.

Severability

If any of the terms or conditions of this Agreement are found to be void or unenforceable for any reason, the remainder of this Agreement shall continue in full force and effect, and the court shall attempt to judicially reform the void or unenforceable provisions to the maximum extent possible, consistent with the original intent expressed in the provisions, to render it valid and enforceable. If the court is unable to reform the provisions to render it valid and enforceable, the court shall strike only that portion that is invalid or unenforceable, and this Agreement shall then be construed without reference to the void or unenforceable provisions.

SHANNON & WILSON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Attachment to and part of Proposal: 108739-P
Date: 02-09-2022
To: Chris Hodges, P.E.
RESPEC

Important Information About Your Geotechnical/Environmental Proposal

More construction problems are caused by site subsurface conditions than any other factor. The following suggestions and observations are offered to help you manage your risks.

HAVE REALISTIC EXPECTATIONS.

If you have never before dealt with geotechnical or environmental issues, you should recognize that site exploration identifies actual subsurface conditions at those points where samples are taken, at the time they are taken. The data derived are extrapolated by the consultant, who then applies judgment to render an opinion about overall subsurface conditions; their reaction to construction activity; appropriate design of foundations, slopes, impoundments, and recovery wells; and other construction and/or remediation elements. Even under optimal circumstances, actual conditions may differ from those inferred to exist, because no consultant, no matter how qualified, and no subsurface program, no matter how comprehensive, can reveal what is hidden by earth, rock, and time.

DEVELOP THE SUBSURFACE EXPLORATION PLAN WITH CARE.

The nature of subsurface explorations—the types, quantities, and locations of procedures used—in large measure determines the effectiveness of the geotechnical/environmental report and the design based upon it. The more comprehensive a subsurface exploration and testing program, the more information it provides to the consultant, helping to reduce the risk of unanticipated conditions and the attendant risk of costly delays and disputes. Even the cost of subsurface construction may be lowered.

Developing a proper subsurface exploration plan is a basic element of geotechnical/environmental design that should be accomplished jointly by the consultant and the client (or designated professional representatives). This helps the parties involved recognize mutual concerns and makes the client aware of the technical options available. Clients who develop a subsurface exploration plan without the involvement and concurrence of a consultant may be required to assume responsibility and liability for the plan's adequacy.

READ GENERAL CONDITIONS CAREFULLY.

Most consultants include standard general contract conditions in their proposals. One of the general conditions most commonly employed is to limit the consulting firm's liability. Known as a "risk allocation" or "limitation of liability," this approach helps prevent problems at the beginning and establishes a fair and reasonable framework for handling them should they arise.

Various other elements of general conditions delineate your consultant's responsibilities. These are used to help eliminate confusion and misunderstandings, thereby helping all parties recognize who is responsible for different tasks. In all cases, read your consultant's general conditions carefully and ask any questions you may have.

HAVE YOUR CONSULTANT WORK WITH OTHER DESIGN PROFESSIONALS.

Costly problems can occur when other design professionals develop their plans based on misinterpretations of a consultant's report. To help avoid misinterpretations, retain your consultant to work with other project design professionals who are affected by the geotechnical/environmental report. This allows a consultant to explain report implications to design professionals affected by them, and to review their plans and specifications so that issues can be dealt with adequately. Although some other design professionals may be familiar with geotechnical/environmental concerns, none knows as much about them as a competent consultant.

OBTAIN CONSTRUCTION MONITORING SERVICES.

Most experienced clients also retain their consultant to serve during the construction phase of their projects. Involvement during the construction phase is particularly important because this permits the consultant to be on hand quickly to evaluate unanticipated conditions, conduct additional tests if required, and when necessary, recommend alternative solutions to problems. The consultant can also monitor the geotechnical/environmental work performed by contractors. It is essential to recognize that the construction recommendations included in a report are preliminary, because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site.

Because actual subsurface conditions can be discerned only during earthwork and/or drilling, design consultants need to observe those conditions in order to provide their recommendations. Only the consultant who prepares the report is fully familiar with the background information needed to determine whether or not the report's recommendations are valid. The consultant submitting the report cannot assume responsibility or liability for the adequacy of preliminary recommendations if another party is retained to observe construction.

REALIZE THAT ENVIRONMENTAL ISSUES MAY NOT HAVE BEEN ADDRESSED.

If you have requested only a geotechnical engineering proposal, it will not include services needed to evaluate the likelihood of contamination by hazardous materials or other pollutants. Given the liabilities involved, it is prudent practice to always have a site reviewed from an environmental viewpoint. A consultant cannot be responsible for failing to detect contaminants when the services needed to perform that function are not being provided.

ONE OF THE OBLIGATIONS OF YOUR CONSULTANT IS TO PROTECT THE SAFETY, PROPERTY, AND WELFARE OF THE PUBLIC.

A geotechnical/environmental investigation will sometimes disclose the existence of conditions that may endanger the safety, health, property, or welfare of the public. Your consultant may be obligated under rules of professional conduct, or statutory or common law, to notify you and others of these conditions.

RELY ON YOUR CONSULTANT FOR ADDITIONAL ASSISTANCE.

Your consulting firm is familiar with several techniques and approaches that can be used to help reduce risk exposure for all parties to a construction project, from design through construction. Ask your consultant, not only about geotechnical and environmental issues, but others as well, to learn about approaches that may be of genuine benefit.

The preceding paragraphs are based on information provided by the ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland

ESTIMATIONS

February 7, 2022

Chris Hodges
RESPEC
1028 Aurora Drive
Fairbanks, Alaska 99709

Re: North Pole Old Water Treatment Plant Office Renovation
Fee Proposal

Chris,

We can provide you with cost estimating services for this project for the fee, outlined below. We have based our proposal on the SOW provided in your email on 01Feb22.

Our fee includes one estimate with a revision based on the design team and owner review comments.

Please allow two weeks for the estimate to be developed, for review by the design team.

This is a Fixed Fee for one estimate. Any change in scope and we reserve the opportunity to renegotiate.

	Admin		Estimator		Sr Estimator		Fixed Fee Totals	
Item	Rate	$99.00		$84.00		$155.00		
65% Level Cost Estimate	1	$99.00	12	$1,008.00	12	$1,860.00	25	$2,967.00
Revisions based on review comments	1	$99.00	0	$0.00	4	$620.00	5	$719.00
Project Totals	2	$198.00	12	$1,008.00	16	$2,480.00	30	$3,686.00

Thank you for choosing Estimations for your cost estimating services.

Sincerely,

Jay Lavoie
President

1225 E. Int'l Airport Road, Suite 235, Anchorage, Alaska 99518
(907) 561-0790 ph., in@estimations.com email

Memo

To: North Pole City Council, Mayor Welch

From: Chad Heineken, Fire Chief

Date: 2/22/2022

Re: Request to Purchase, Radios

North Pole Fire Department is requesting Council approval to purchase 4 new Motorola APX mobile radios using funds available within the fire department fleet fund.

The fire department will be receiving three new vehicles over the next 16 months. A Pierce fire engine and a Ford SUV command vehicle have been ordered. We anticipate ordering the next ambulance within a few months. Radios are not provided by the vehicle manufactures. Each of these vehicles will need to have radios installed prior to being placed into service. The fire department is preparing for the arrival of these apparatus and has obtained a quote from Motorola to make a onetime purchase for the radios needed.

• New Fire Engine	1 radio	$5,963.39
• Command SUV	2 radios	$11,926.78
• Ambulance	1 dual head radio	$6,059.80
• Total Cost	4 radios	$22,449.97

MOTOROLA SOLUTIONS

NORTH POLE, CITY OF

APX Mobiles: Fire

02/04/2022

MOTOROLA SOLUTIONS

QUOTE-1663378

02/04/2022

NORTH POLE, CITY OF
N POLE, CITY OF
125 SNOWMAN LN
North Pole, AK 99705

RE: Motorola Quote for APX Mobiles: Fire
Dear ,

Motorola Solutions is pleased to present NORTH POLE, CITY OF with this quote for quality communications equipment and services. The development of this quote provided us the opportunity to evaluate your requirements and propose a solution to best fulfill your communications needs.

This information is provided to assist you in your evaluation process. Our goal is to provide NORTH POLE, CITY OF with the best products and services available in the communications industry. Please direct any questions to Angela Parker at aparker@procommak.com.

We thank you for the opportunity to provide you with premier communications and look forward to your review and feedback regarding this quote.

Sincerely,

Angela Parker
Inside Sales Specialist

Motorola Solutions Manufacturer's Representative

Billing Address:
NORTH POLE, CITY OF
N POLE, CITY OF
125 SNOWMAN LN
North Pole, AK 99705
US

Quote Date:02/04/2022
Expiration Date:05/05/2022
Quote Created By:
Angela Parker
Inside Sales Specialist
aparker@procommak.com

End Customer:
NORTH POLE, CITY OF

Contract: 36273 - SOURCEWELL

Line #	Item Number	Description	Qty	List Price	Sale Price	Ext. Sale Price
	APX™ 6500 / Enh Series	ENHANCEDAPX6500				
1	M25KSS9PW1BN	APX6500 ENHANCED VHF MOBILE	3	$3,253.00	$2,374.69	$7,124.07
1a	G792AB	ADD:VHF ANT WIDEBAND 136-174 MHZ	3	$83.00	$60.59	$181.77
1b	QA01648AA	ADD: HW KEY SUPPLEMENTAL DATA	3	$6.00	$4.38	$13.14
1c	GA00580AA	ADD: TDMA OPERATION	3	$495.00	$361.35	$1,084.05
1d	G51AU	ENH: SMARTZONE OPERATION APX6500	3	$1,320.00	$963.60	$2,890.80
1e	G67DT	ADD: REMOTE MOUNT E5 APXM	3	$327.00	$238.71	$716.13
1f	G78AT	ENH: 3 YEAR ESSENTIAL SVC	3	$176.00	$176.00	$528.00
1g	GA01606AA	ADD: NO GPS/WI-FI ANTENNA NEEDED	3	$0.00	$0.00	$0.00
1h	B18CR	ADD: AUXILIARY SPKR 7.5 WATT APX	3	$66.00	$48.18	$144.54
1i	G444AH	ADD: APX CONTROL HEAD SOFTWARE	3	$0.00	$0.00	$0.00
1j	G806BL	ENH: ASTRO DIGITAL CAI OP APX	3	$567.00	$413.91	$1,241.73

Line #	Item Number	Description	Qty	List Price	Sale Price	Ext. Sale Price
1k	GA01670AA	ADD: APX E5 CONTROL HEAD	3	$717.00	$523.41	$1,570.23
1l	W22BA	ADD: STD PALM MICROPHONE APX	3	$79.00	$57.67	$173.01
1m	G193AK	ADD: ADP ONLY (NON-P25 CAP COMPLIANT) (US ONLY)	3	$0.00	$0.00	$0.00
1n	G361AH	ENH: P25 TRUNKING SOFTWARE APX	3	$330.00	$240.90	$722.70
	APX™ 6500 / Enh Series	ENHANCEDAPX6500				
2	M25KSS9PW1BN	APX6500 ENHANCED VHF MOBILE	1	$3,253.00	$2,374.69	$2,374.69
2a	G792AB	ADD:VHF ANT WIDEBAND 136-174 MHZ	1	$83.00	$60.59	$60.59
2b	QA01648AA	ADD: HW KEY SUPPLEMENTAL DATA	1	$6.00	$4.38	$4.38
2c	GA00580AA	ADD: TDMA OPERATION	1	$495.00	$361.35	$361.35
2d	G628AC	ADD: REMOTE MOUNT CABLE 17 FT APX	1	$17.00	$12.41	$12.41
2e	G51AU	ENH: SMARTZONE OPERATION APX6500	1	$1,320.00	$963.60	$963.60
2f	G67DT	ADD: REMOTE MOUNT E5 APXM	1	$327.00	$238.71	$238.71
2g	G78AT	ENH: 3 YEAR ESSENTIAL SVC	1	$176.00	$176.00	$176.00
2h	GA00092AU	ADD: APXM DUAL E5 CH	1	$627.00	$457.71	$457.71
2i	GA01606AA	ADD: NO GPS/WI-FI ANTENNA NEEDED	1	$0.00	$0.00	$0.00
2j	B18CR	ADD: AUXILIARY SPKR 7.5 WATT APX	2	$66.00	$48.18	$96.36
2k	G610AC	ADD: REMOTE MOUNT CABLE 30 FT APX	1	$28.00	$20.44	$20.44
2l	G444AH	ADD: APX CONTROL HEAD SOFTWARE	1	$0.00	$0.00	$0.00
2m	G806BL	ENH: ASTRO DIGITAL CAI OP APX	1	$567.00	$413.91	$413.91

Line #	Item Number	Description	Qty	List Price	Sale Price	Ext. Sale Price
2n	GA01670AA	ADD: APX E5 CONTROL HEAD	1	$717.00	$523.41	$523.41
2o	W22BA	ADD: STD PALM MICROPHONE APX	2	$79.00	$57.67	$115.34
2p	G193AK	ADD: ADP ONLY (NON-P25 CAP COMPLIANT) (US ONLY)	1	$0.00	$0.00	$0.00
2q	G361AH	ENH: P25 TRUNKING SOFTWARE APX	1	$330.00	$240.90	$240.90

Grand Total $22,449.97(USD)

Notes:

- Unless otherwise noted, this quote excludes sales tax or other applicable taxes (such as Goods and Services Tax, sales tax, Value Added Tax and other taxes of a similar nature). Any tax the customer is subject to will be added to invoices.

MOTOROLA SOLUTIONS

Purchase Order Checklist

Marked as PO/ Contract/ Notice to Proceed on Company Letterhead **(PO will not be processed without this)**
PO Number/ Contract Number
PO Date
Vendor = Motorola Solutions, Inc.
Payment (Billing) Terms/ State Contract Number
Bill-To Name on PO must be equal to the *Legal* Bill-To Name
Bill-To Address
Ship-To Address (If we are shipping to a MR location, it must be documented on PO)
Ultimate Address (If the Ship-To address is the MR location then the Ultimate Destination address must be documented on PO)
PO Amount must be equal to or greater than Order Total
Non-Editable Format (Word/ Excel templates cannot be accepted)
Bill To Contact Name & Phone # and EMAIL for customer accounts payable dept
Ship To Contact Name & Phone #
Tax Exemption Status
Signatures (As required)