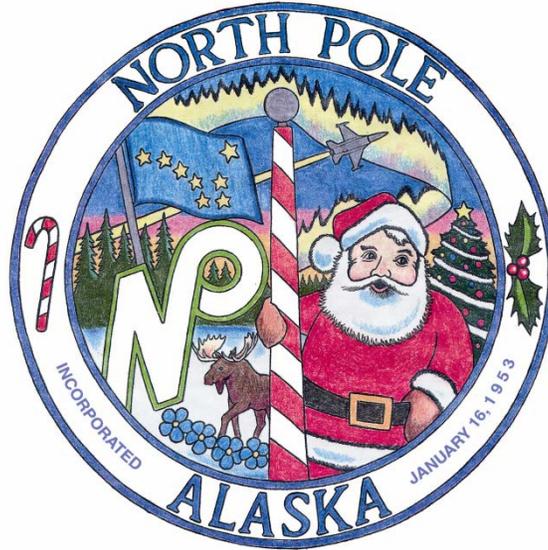


# CITY OF NORTH POLE



## **Permit Application and Specifications Manual for Street Excavation and Work within Public Rights-of-Way and Easements**

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# **I. GENERAL PROVISIONS**

## **A. Excavation and Work within the Public Rights-of-Way and Easements**

An approved excavation permit is required for all work performed within City of North Pole rights-of-way and easements. No work shall begin until the permit has been issued and utility locates have been obtained. The contractor shall have available at the work site a copy of the approved permit, the approved construction plans, and the approved traffic control plan (if required).

## **B. Summary of Excavation Permit Requirements**

- 1. Gravel Roads and Pedestrian Paths:** Reconstruction of the road embankment at each crossing shall require that the final 16” of the excavation be backfilled with 12” thickness of selected materials, Type “A” as defined by the latest edition of “Alaska Standard Specifications for Highway Construction.” The final (4) inches shall be crushed aggregate, E-1. If the road is surfaced with Brown’s Hill, the final 4” will match the existing surface gradation of Brown’s Hill.

Gravel and dirt surfaced roadbeds may be crossed by plowing in the cable. The berm left from the plow must be compacted back down immediately after the cable is laid. Extreme care must be taken to insure that the plow trench does not settle or erode.

- 2. Asphalt Roads and Pedestrian Paths:** Road cuts must be “saw cut” and shall be a minimum of 10 feet wide. Reconstruction of the road embankment at each crossing shall require that the final 18” of the excavation be backfilled with 12” thickness of selected materials, Type “A” as defined by the latest edition of “Alaska Standard Specifications for Highway Construction.” Place Four (4) inches of crushed aggregate, D-1 on top of the selected material. The final surface shall be 2 inches hot mix asphalt concrete. The elevation of the finished surface after compaction must be smooth and match the existing surface with an allowable tolerance of up to ¼ inches above the existing adjacent surfaces.

All backfill must be compacted to not less than 95% maximum density. Density test must be performed by a qualified independent third party firm. Density test results generated by the testing firm must be submitted to the City prior to release of bond. At a minimum, permittee must provide the results of tests taken at each one foot of depth of the excavation and at the final grade. Distribution of compaction tests across a road shall be one in each shoulder and two for each traffic lane. For example, the normal road cut across the entire width of a two-lane road would be six compaction

tests per lift. For road cuts other than across the entire road width, the distribution of compaction tests across the cut must be pre-approved by the City. Tests must be made in accordance with ASSHTO T-180 D or Alaska T-12 determination of maximum density, and Alaska T-3 or T-11 for determination of field density. In lieu of density tests, the bond shall be held for 2 years.

- 3. Other Road and Pedestrian Path Crossings:** Boring or pushing a conduit under a roadbed is authorized.
- 4. Excavations Outside Road and Pedestrian Path Embankment:** Excavations within the right-of-way outside the road embankment within City ROW are allowed, but all excavations outside of the road embankment shall be refilled, compacted to 85% maximum density and graded smooth. Ditch shall be graded to drain. Ditch side slopes shall match original condition unless approval received from the City.
- 5. Storm Water Runoff:** The Permittee shall use appropriate Best Management Practices (BMPs) for storm water erosion and sediment control during construction as contained in the most current Alaska Construction General Permit. BMPs shall minimize soil erosion and the deposition of sediment in drainage ditches. Appropriate BMPs may include mulching, riprap, soil roughening, seeding, silt fenced and fiber rolls. Information on BMPs may be found in the brochure: Fairbanks & North Pole Storm Water Management Program Guide available on the City's Public Works website. The permittee needs to obtain a Storm Water Permit if work takes place in the MS4 within the jurisdiction of the City and the combined excavation of ground disturbance is equal to or exceeds one acre. See North Pole Municipal Code, Chapter 15.66 Construction Site Storm Water Runoff.
- 6. Other Conditions of Excavation Permit:**
  - a. A set of as-built plans shall be provided to the City upon completion of the work. These plans shall include: A cross-section of the excavation showing the depth of the installed utility facility, and/or A plan view of the excavation showing the horizontal location relative to the adjacent lot corners or other readily identifiable monuments.
  - b. Utility facilities shall be located out of the road right-of-way whenever possible. Any damage to or relocation costs for plowed-in cables located within the road right-of-way shall not be the responsibility of the FNSB or the service area.
  - c. Utility facilities shall be located out of the road right-of-way whenever possible. If utility facilities are constructed as shown on the as-builts, damage or relocation costs for these specific excavated, bored or jacked installations will be borne by the persons causing such damage or relocation.

- d. A Traffic Control Plan (TCP) must be developed by a Work Site Safety Supervisor, currently certified by the American Traffic Safety Services Association (ATSSA) or Level One Signs and Markings Specialist certified by the International Municipal Signal Association (IMSA). Traffic control devices installed in accordance with the TCP must be in place prior to starting excavation. All traffic control devices must be clean, meet reflectivity standards and in good working condition. The TCP must be in place until the completion of work. If the permittee does not have the correct traffic control devices in place per the TCP during routine inspection, the work will be halted immediately and cannot resume until the devices are placed per the TCP.
- e. All open excavations shall be backfilled and two-way traffic restored prior to Saturday and Sunday.

### **C. Conditions of Final Approval and release of Bond**

1. City inspector approves the field work.
2. Density test results generated by the testing firm submitted to and approved by the City. **In lieu of density tests, the bond shall be held for 2 years.**
3. A set of as-built plans of the excavation provided to the City upon completion of the work.

### **D. Excavation and Work within the Public Rights-of-Way and Easements Permit Application Process**

All contractors submitting plans for review are required to comply with the following procedures.

1. The administrative charge for a permit is \$50.00.
2. Cost of a permit: When the City deems at its sole discretion that plan review and inspection of a construction project exceeds the expertise of the City to perform, the City shall retain external expertise to perform plan review and inspections services. When the City determines that a project requires the use of external expertise to conduct plan review and/or inspections, the City shall negotiate a Reimbursable Services Agreement (RSA) between the City and the construction contractor. The RSA shall fully cover the City's costs plus a five (5) percent administrative charge.

3. Permits are valid for one hundred twenty (120) days, after which they automatically become void and must be updated and re-approved by the City before any construction will be permitted.
4. The Contractor shall have one (1) copy of the approved permit, the approved construction plans, and the approved traffic control plan (if required) at the job site at all times.
5. Two (2) complete sets of prints of the project drawings or schematics shall be submitted to the City for review.
6. The following items shall be included on the plan:
  - a. North arrow and scale
  - b. Existing and proposed streets with names and widths
  - c. Driveway locations with accurate width
  - d. Easement and right-of-way information recorded with the Borough
  - e. All existing utilities (type and location)
  - f. Proposed utility location showing approximate dimensions in relation to right-of-way and/or easement line
  - g. Legend of symbols
  - h. Minor construction notes indicating the type of excavation and or boring under streets and driveways or other permanent structures. Additional information may be required by the City as necessary.
  - i. A traffic control plan will be required for all work that includes temporary lane reductions or closures. The traffic control plan shall be approved by the City of North Pole prior to any permit being issued.

#### **E. Traffic Control Requirements**

Staff will review each permit application to determine if a traffic control plan will be required. If required, the traffic control plan must be submitted and approved before the permit will be issued.

Coordination with the City is required for all work that includes temporary lane reductions or closures. The contractor must notify City a minimum of 48-hours in advance of scheduled temporary lane reductions or closures. The contact number is 907-388-7002.

Workers are required to follow all applicable safety regulations, including wearing approved safety apparel at all times.



## H. Exceptions to City Standards

Exceptions or modifications to these standards may be allowed on a case-by-case basis upon written application to the City. The contractor shall bear any expense incurred by the City to evaluate a modification to the City's standards. The City shall negotiate a Reimbursable Services Agreement (RSA) with any contractor requesting modification of the City's standards. Requesting a modification of the City's standards and implementation of a RSA does not guarantee the City will approve the contractor's request.

## II. SPECIFICATIONS FOR CONSTRUCTION WITHIN CITY RIGHT-OF-WAY

### A. CITY POLICIES

1. This policy applies to the location, construction, maintenance, removal, and relocation of all private, public, and cooperatively owned utilities **within the public right-of-way under the jurisdiction of the City of North Pole.**
2. Such utilities include, but are not limited to, lines, facilities, and systems for producing, transmitting, or distributing communications, power, electricity, light, heat, gas, oil, crude products, water, steam, wastewater, storm water not connected with public drainage, and other similar commodities, including fire and police signal systems and street lighting and traffic control systems, which directly or indirectly service the public or any part thereof.
3. A bond will be required as a part of the permit application to guarantee satisfactory performance of the utility work if the work involves street and/or curb cuts or other modification or disturbance City facilities and restoration. The bond shall be conditioned that the applicant will properly barricade and protect the cut or excavation and that the applicant will indemnify and hold harmless the City of North Pole from any and all loss, damages and expenses arising out of the applicant's work. The bond shall be further conditioned that the applicant will pay to the City of North Pole the cost of refilling and repairing pavement or damage to City property, if it is not properly done by the applicant.

The amount of the bond is based upon the table below or a sum equal to the contract/value of the work plus ten (10) percent, including excavating costs, backfilling, compaction of backfill, pavement replacement, inspection and testing whichever is greater. A copy of the bid award may be required by the building

official to determine the contract/value of the improvement.

Type of Work	Square feet of project	Total
Road, unpaved; \$20/square foot (\$1,000 minimum)	sq. ft.	\$
Road, paved; \$40/square foot (\$5,000 minimum) <b>The minimum width of a road cut shall be 10 feet wide</b>	sq. ft.	\$
Sidewalk, unpaved: \$5/square foot (\$500 minimum)	sq. ft.	\$
Sidewalk, paved: \$20/square foot (\$2,000 minimum) <b>The minimum width of a sidewalk cut shall be 10 feet wide.</b>	sq. ft.	\$
Alley; \$20/square foot (\$1,000 minimum)	sq. ft.	\$
Road shoulder only: \$5/square foot (\$1,000 minimum)	sq. ft.	\$
Other, e.g., City property, undeveloped right-of-way etc.; contact City	sq. ft.	\$
Total		\$

## B. TRAFFIC CONTROL

1. Construction and maintenance operations shall be coordinated to minimize delays to traffic. Traffic shall be carried through construction with a minimum of one lane open at all times unless otherwise approved. Access to adjoining residences and businesses will be maintained at all times. The Contractor shall provide a traffic control plan that conforms to the latest version of the *Alaska Traffic Manual* (ATM). The Contractor shall furnish adequate signs, barricades, warning lights, and all other equipment necessary to direct and re-route traffic and shall furnish all flagmen and other personnel necessary to provide the required traffic control. The City of North Pole can require the Contractor, at his expense, to install additional barricades and/or signage at designated areas along the street to provide the necessary traffic control.
2. All traffic control devices shall be installed at the inception of the work. The traffic control devices shall be properly maintained and/or operated during the time of construction and/or as special conditions arise. If the traffic control and routing does not conform to the ATM or an approved traffic control plan, one (1) notice will be given to correct the problem. If the problem is not corrected, the contractor will be required to stop work and reopen the road immediately. Failure of the contractor to satisfactorily address concerns may result in the City of North Pole taking action to temporarily maintain traffic safety. All costs incurred by the City of North Pole will be reimbursed by the contractor.

3. Notice of any road or lane closures shall be made to the City of North Pole at least forty-eight (48) hours prior to the closure. No road or lane closures will be allowed between the hours of 6:30 a.m. and 8:30 a.m. and 4:00 p.m. and 6:00 p.m. unless otherwise approved. In addition to all proper traffic control signs, barricades, and channelization devices, arrow panels shall be used on all lane closures of multi-lane streets and detour signage shall be provided for all road closures. The arrow panels shall be placed at the beginning of the taper for the lane being closed and shall remain in place for the duration of the lane closure.

### **C. LIABILITY**

1. The contractor assumes all risk and liability for accidents that may occur to persons or property from work performed under this permit. Care should be taken to protect public access into construction areas. The contractor shall provide a safe work area, and shall erect and maintain warning signs, barricades, and sufficient safeguards around all projects. Minimum protection measures shall include safety fencing around all excavations left open overnight. Additionally all excavations left unattended shall be fenced during daylight hours.
2. The contractor shall be responsible for location of underground wiring, fiber optic cables, etc. and shall assume liability for damage to same.
3. Where City-owned facilities are concerned (storm and sanitary sewers, waterlines, street light conduit, etc.), the contractor shall be liable for damage to such and required to repair same to the City's sole satisfaction at the contractor's expense.
4. Existing sidewalk, curbing and pavement shall be protected from damage due to excessive loading from construction equipment such as, but not limited to, trucks, equipment trailers, backhoes and all track machinery. Protective measures such as steel plates, earth padding and or wooden timbers which are capable of effectively limiting damaging pressures from being transmitted to these areas shall be employed. All damage including surface blemishes shall be repaired to the City's sole satisfaction by the contractor in a timely manner at no expense to the City of North Pole.
5. Repairs to damage of Public Improvements shall be performed by the contractor who bonded the project originally if the project maintenance bond has not expired or if the project is under construction, i.e., a Project Completion Certificate has not been issued. The contractor shall be totally responsible for the cost of all repair work performed by the contractor.

### III. PRESERVATION, RESTORATION, CLEANUP AND MAINTENANCE

#### A. DISTURBED AREAS

- 1 All excavation work shall conform to the most recent Alaska Construction General Permit related storm water best management practices. Should the excavation work be within the area covered by the City's Storm Water Permit and exceed a combined one acre or greater of ground disturbance, the contractor shall apply for a Storm Water Permit from the City.
- 2 Areas of public rights-of-way or easements disturbed by the installation, maintenance, removal, and relocation of utilities shall be kept to a minimum. The contractor shall take all necessary measures to ensure that mud, dirt, rock, gravel, and all other construction debris are not allowed to erode or be tracked onto public streets. The contractor will be required to immediately remove any such debris and return the street to its normal condition.
- 3 The maximum allowable open excavation is five (5) days from date of original excavation, or as directed by the City. **All open excavations shall be backfilled and two-way traffic restored prior to Saturday and Sunday.** All trench backfill shall conform to the latest edition of the Alaska Department of Transportation and Public Facilities Standard Specifications for Highway Construction.
- 4 Disturbed areas shall be returned to normal grade and elevation, and all excess or undesirable material removed by the contractor within five (5) days of completion of work unless authorized by the City in writing.
- 5 All established areas that are routinely mowed and maintained shall be reseeded. Landscaping shall be returned to its original condition free of ruts and debris. Destroyed vegetation shall be replaced by the contractor by fertilizing, sodding, or seeding and mulching, as required by the City. Surface restoration will be completed within three (3) weeks of final excavation activity or as directed by the City.
- 6 Adequate protection against erosion shall be provided by the contractor in disturbed areas that are susceptible to erosion. Such protection may be in the form of ditch checks, earth dikes, erosion control mats, rip-rap, or other methods that are approved by the State of Alaska Construction General Permit as relates to storm water best management practices and do not interfere with street maintenance operations.

## **B. DRAINAGE FACILITIES**

Care shall be taken to avoid disturbing existing drainage facilities. Underground utility facilities shall be back-filled with pervious material and outlets provided for entrapped water. Underdrains shall be provided where necessary.

## **C. STREET CURBING**

Care shall be taken to avoid disturbing subgrade and base under adjacent street curb. Excavations for street crossings shall begin at a point not closer than three (3) feet from back of curb. Undermining of curbing shall not be permitted.

## **D. CLEANUP**

Subject to a final inspection for satisfactory acceptance of work performed in public rights-of-way and easements, the contractor shall be responsible for restoring all “disturbed areas” as required under subsection “A” above, removing all unused material or debris from the site of the work area. The surface of the area affected by the work shall be left free of rocks, gravel, broken concrete, concrete washout, asphalt, tree roots, lumber or debris of any kind. Areas must be left in like or better condition than original.

## **E. EROSION CONTROL**

Erosion control measures will be required on all construction sites. They will be required where there is a chance of silt, dirt or mud that could leave the right-of-way or easements and affect adjacent private property or public streets. The City will determine these areas. The erosion control measures will be in place prior to any digging or disturbing of the existing ground cover. If they are not in place prior to construction, the construction site will be shut down until the erosion control measures are in place and approved by the City. Once the construction project is complete and the site final graded and ready for seed or sod, the contractor will then remove the erosion controls prior to seeding or sodding.

## **F. MAINTENANCE**

The contractor shall guarantee all work performed under the right-of-way permit for a period of one year from final acceptance. The contractor shall be required to make all necessary repairs as directed by the City. The cost of the repair work shall be the responsibility of the contractor.

## **IV. SPECIFICATIONS FOR CONSTRUCTION OF UTILITIES WITHIN CITY RIGHT-OF-WAY**

### **A. GENERAL PROVISIONS**

This policy applies to all public and private underground utilities, including, but not limited to, electric power, telephone, telegraph, cable television, fiber optic, water, gas, oil, petroleum products, steam, chemicals, sewage, drainage, irrigation, and similar lines that are to be located, adjusted, or relocated, within the right-of-way and easements under the jurisdiction of the City. For installation of water or sewer utility infrastructure to be turned over to the City for operation, see the *Utility Standards of Construction* available on the Utility Department webpage.

- 1 Utility installations are to be located to minimize need for later adjustment, to accommodate future street improvements and to permit servicing such lines with minimum interference to street traffic.
- 2 The horizontal and vertical location of utility lines within the street right-of-way shall conform to the dimensions outlined in the following Sections B and C below.

### **B. UTILITIES PARALLELING RIGHT-OF-WAY**

- 1 Underground utility installations shall be located in a utility easement, if available, or at the outer limits of the right-of-way, within two (2) feet or less of the right-of-way line, unless otherwise approved by the City.
- 2 Care shall be taken to avoid disturbing subgrade and base under adjacent street curb. Excavations for street crossings shall begin at a point not closer than three (3) feet from back of curb. Undermining of curbing shall not be permitted.
- 3 Underground facilities within four (4) feet back of curb shall be installed at minimum depth of three (3) feet below top of back of curb.
- 4 Manhole tops should be set on a ¼" to ½" per foot slope from back of curb or if no curbs, set flush with surrounding grade.
- 5 Open excavation of driveways or sidewalks and other structures is not encouraged. Any damage to private or public facilities or improvements shall be repaired or replaced in a like or better condition than original and to the City's satisfaction and in compliance with the most current edition of City of North Pole Design Guidelines for Streets and Drainage. Open excavation across proposed street and/or roadway and extending four feet behind proposed curb line will be backfilled only with clean

course aggregate or flowable fill. All loose dirt will be removed before backfill is placed.

- 6 The Utility Company shall give 48 (forty-eight) hour written notice to local businesses and residents prior to a driveway closing for reason of open excavation and permanent surfacing. The driveway is to be re-opened as soon as possible and the contractor is to cooperate with the occupant in this matter.

### **C. UTILITIES CROSSING RIGHT-OF-WAY**

- 1 Underground utility installations shall be located normal to the street alignment where practical.
- 2 All utilities crossing through ditches and roadways shall have a minimum of three (3) feet of clearance from bottom of asphalt to top of conduit crossing right-of-way or three (3) feet below ditch grade, whichever shall provide the greatest amount of cover. In fill sections, the natural ground line at the toe of the slope will be considered as ditch grade. However, in no case shall the depth of cover be less than that meeting applicable Industry Safety Requirements.
- 3 If less than minimum depth is necessary because of existing utilities, water table, or similar reasons, the line shall be rerouted or protected with a casing or concrete slab upon written consent of the City.
- 4 Underground installations may be made by open trenching from the right-of-way line to the toe of the fill slope in fill sections and to the toe of the shoulder slope in cut sections. Open trenching shall comply with specifications for Open Excavation as stated below. The remainder will be tunneled, augured, or dry-bored through the roadway grade.
- 5 Manhole tops should be set on a ¼” to ½” per foot slope from back of curb or if no curbs, set flush with surrounding grade.
- 6 Utility lines will not be permitted through drainage structures.

### **D. ENCASEMENT OF UTILITIES**

Generally, casing shall be an oversized load-bearing conduit or duct through which a utility is inserted to protect the roadway from damages and to provide for repair, removal and replacement of the utility without interference to street traffic.

## **E. BORING**

- 1 Care shall be taken to ensure the existing roadways shall not be damaged during bores across and under existing roadways. In locations where multiple conduits are proposed to occupy a common location across existing or proposed streets, bore holes constructed by the method of boring a pilot hole and pulling expanding mandrels shall not exceed a diameter of eight (8) inches. For all holes across existing roadways in excess of eight (8) inches the bored hole shall be constructed by the boring and jacking method. The carrier conduit shall be capable of withstanding the static pressure necessary to jack it in to its final position for its full length. All augured material shall be removed from the site as it is excavated. Stock piling of excavated materials on street right of way shall not be permitted.
- 2 Pits for boring, tunneling or jacking normally will not be permitted in the roadway and will not be permitted closer to the roadway than toe of fill in fill sections or toe of shoulder slope in ditch sections or four (4) feet back of curb when allowed on the right-of-way.
- 3 Casing and pipeline installations shall be accomplished by dry boring, tunneling, jacking, trenching, or other approved methods.
- 4 All voids caused by boring and jacking shall be filled by pressure grouting. The grout material shall be a sand cement slurry with a minimum of two (2) sacks of cement per cubic yard and a minimum of water to assure satisfactory placement.
- 5 Bored or tunneled installations shall have a hole diameter which shall not exceed the outside diameter of the utility pipe, cable or casing (including coating) by more than two (2) inches on pipes with an inside diameter six (6) inches or less and a hole diameter not to exceed the outside diameter on pipes with an inside diameter of greater than six (6) inches unless otherwise allowed by the City Engineer.