



TOWN OF SALEM NH

STREET EXCAVATION PERMIT REGULATIONS

GENERAL PERMIT CONDITIONS AND CONSTRUCTION REQUIREMENTS

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PERMIT REQUIREMENTS:

Per the Town of Salem NH Board of Selectmen, a person shall not disturb, excavate, or open the ground or pavement in any street, highway, sidewalk, or within the Town right-of-way, without first obtaining authorization from the Municipal Services Department – Engineering Division. Street Opening Permits shall be issued on an application form provided by the Town.

Application Requirements

- Completed Application
- Required Bonding and Insurance on file with Town
- Proposed Traffic Control Plan
- Work Zone Photos with pre-marks
- Valid Dig Safe Number

1. Completed Application by applicant – attached.
2. The applicant for a permit, or agent thereof, or the contractor performing the work within the Town’s right-of-way, shall, before issuance of a permit submit the following to the Engineering Division:
 - a. A permit bond or an irrevocable letter of credit written on a New Hampshire bank or financial institution is required. The financial guarantee shall be a minimum amount of Five Thousand Dollars (\$5,000) guaranteeing the work and methods have been met by the standards set forth in construction requirements.
 - b. A certificate of insurance, naming the Town as additional insured, providing the following coverage:

The applicant shall demonstrate that its staff is protected by General Liability insurance in compliance with statutory limits and that the Consultant has coverage under professional liability, public liability and property damage insurance policies. Certificates for such policies will be provided to Client upon request.

Minimum coverages shall be as follows:

- Comprehensive General Liability (including Products Completed, Contractual Property, and Personal Injury coverage): \$1,000,000 per occurrence / \$2,000,000 aggregate
- Automobile Liability (Property Damage): \$1,000,000 per occurrence

The applicant agrees to indemnify and save harmless the Town from all claims for damage or injury whatsoever, that may arise from the encumbrance, obstruction, occupation, or use of the street, highway, sidewalk or property within the public right-of-way, as well as claims for loss or interruption of business where the work area impedes the flow of traffic to any person or property arising out of the activities of the permitted work. The Town in no case assumes any responsibility or liability by reason of granting this permit.

- c. An affirmation that the applicant is not delinquent in fees, fines, or payments due to the Town for prior work.

- d. Once approved, the permit is valid for the time specified in the permit and must be renewed prior to the expiration date.

A minimum of three (3) business days prior to the actual start of the work the following must occur:

- Notification to the Engineering Division of the actual start date and scheduling of inspections (shall include Utilities Division - Water Department when water work is to be performed)
- Scheduling of Police Details with the Police Department
- Additional bonding in place if required

Upon completion of work and satisfactory restoration, as determined by the Engineering Division a warranty period shall start, the minimum period is one year and the maximum is three years and shall be determined by the Engineering Division, upon issuance of permit.

3. A Traffic Control Plan is required as part of the authorization for a Street Opening Permit. An approved Traffic Control plan will be required prior to the issuance of a Street Opening Permit. Applicants are encouraged to plan accordingly as the Engineering Division and the Police Department will require approximately three working days to review and comment on proposed Traffic Control Plans. Any required revisions may necessitate additional reviews.
4. All work shall proceed in a continuous manner with diligence and expedition, so as not to obstruct the public places or travel thereon more than is reasonably necessary. A Work Zone plan with photos and pre-marks illustrating the subject property and adjacent properties showing pre-existing conditions including but not limited to placement of utilities, structures, street lay-out, landscape, trees, and any other item which may be affected by work within the right-of-way and/or areas of private property.
5. The applicant and/or contractor performing the work shall have a valid Dig-Safe number for the proposed work in the application. Work authorized by the permit shall be completed in the summer construction season (April 15th – November 15th), during normal business hours of 7:00 AM to 3:30 PM, Monday through Friday (except holidays). Work at other times will require advanced approval by the Municipal Services Department, following submittal of a formal request to the Engineering Division.

Nothing in this document shall be construed to prevent excavations from occurring as may be necessary for the preservation of life or property in an emergency situation. Police and Fire shall be notified immediately in the event of emergencies. Municipal Services and any affected private utilities shall be notified as soon as possible thereafter. The applicant shall submit an excavation permit application for all work performed within 48-hours of any emergency excavation.

PERMIT FEES:

1. The excavation permit fee, payable in advance, is as follows:
 - a. An administrative and inspection charge of \$225.00 per permit for all excavations within the public right-of-way.
 - b. A street damage charge of \$5.00 per square foot of excavation occurring within the paved portions (asphalt pavement, concrete, brick, or other durable surface) of the public right-of-way.

- c. An infrastructure damage charge of \$2.50 per square foot of excavation occurring within the sidewalk portions or adjacent areas within the Work Zone and public right-of-way including grassed areas.
- d. In cases where non-invasive techniques such as directional drilling are performed the charge will be that of the infrastructure damage with square footage determined by the Engineering Division.

All fees shall be based upon information provided by the applicant at the time of the application and according to trench restoration details, all subject to verification of actual excavation impacts by Town inspection representatives. Street excavation permit fees may be adjusted annually by the Board of Selectmen.

2. The excavation permit fee may be increased if the actual work limits exceed the amounts included in the application. The fee may be adjusted up or down, in accordance with actual work limits, as determined by the Municipal Services Department.
3. Deviations from standard construction details may be approved by the Town, should it consider it to be in its best interest, due to scheduled Town improvements. Deviations that reduce the applicant's cost will require an offsetting contribution towards the Town's scheduled improvement, as determined by the Engineering Division. Offsetting contributions will be due before release of any bonds or letters of credit.
4. Generally, an excavation permit shall cover contiguous construction performed in a single operation. In cases where physically separate excavations and/or phased operations are planned, the Engineering Division will determine if multiple excavation permits are required.

PENALTIES:

1. If the Engineering Division determines that an excavation is not being carried out in accordance with these requirements, a written notice will be issued to the persons or business entities in violation. The written notice will generally contain pertinent information including excavation location, violation, and any applicable penalties assessed including right to excavate in the Town. Penalties may be issued for the following:
 - a. Excavation without a valid street excavation permit.
 - b. Excavation without proof of the permit being available for review when requested.
 - c. Excavation without proper Dig-Safe notification.
 - d. Excavation without prior notice to Engineering Division.
 - e. Excavation that violates any additional measures set forth in this document, including required traffic control and restoration.
2. Persons or business entities receiving a notice of violation will be issued a cease work order and are required to stop all work activities immediately. The work stoppage will remain in effect until such time that the Engineering Division determines compliance has been achieved and the violations and actions thereof have been corrected.

PROTECTION OF STREETS:

PER ARTICLE 36 of the 1990 Annual Town Meeting:

To prohibit excavation, including utility cuts, within the traveled way of any newly reconstructed roadway of the Town for a period of five (5) years from such reconstruction, except for emergency excavation which the Board of Selectmen determines to be in the interest of public health and safety.

Therefore and further whereas:

1. In an effort to protect the Town's investment in its infrastructure, excavations in newly constructed, reconstructed, rehabilitated, or overlaid pavements within the public right-of-way or on Town property no excavation shall occur under the following:
 - a. Newly reconstructed roads, the moratorium period shall be five (5) years from such reconstruction.
 - b. Newly milled and overlaid roads, the moratorium period shall be three (3) winters from such mill and overlay.
2. The Town through its Board of Selectmen may grant waivers under the following but not limited to:
 - a. Excavations to remedy a public emergency or a situation that creates an imminent threat to the public safety, health, or welfare.
 - b. Repair or modification to prevent interruption of essential utility services where no reasonable alternatives are available to avoid excavation in new pavements.
 - c. Relocation work that is mandated by State or Federal legislation
 - d. Utility services for new development, buildings, or parcels without existing utility services where no other reasonable means of providing services exists or which are identified in utility master plans as determined by the Engineering Division.
 - e. Excavations within streets under moratorium where reconstruction is needed due to failure of original pavement.
3. In all of the above, if warranted and allowed, the applicant will pay an additional pavement life reduction factor. This is calculated by the following:
 - a. Street pavement less than 2 years old: 3 times the street damage charge
 - b. Street pavement 2 – 5 years old: 2 times street damage charge.

OR

4. The Board of Selectmen as recommended by Municipal Services may require full lane width mill and overlay for any trench that falls into this category.

TRAFFIC CONTROL REQUIREMENTS:

A Traffic Control Plan is required as part of the application for a Street Opening Permit. An approved Traffic Control plan will be required prior to the issuance of a Street Opening Permit. Applicants are encouraged to plan accordingly as the Engineering Division and the Police Department will require approximately three working days to review and comment on proposed Traffic Control Plans.

All work and traffic control shall be performed in accordance with the following provisions:

- a. "Manual On Uniform Traffic Control Devices" (MUTCD), U.S. Department of Transportation, Federal Highway Administration, current edition;
- b. "Standard Specifications for Road and Bridge Construction", State of New Hampshire Department of Transportation, 1997 or latest revision, sections 615, 618 and 619;
- c. As directed by the Town of Salem Police Department and /or Engineering Division.

Maintenance of traffic shall be achieved in accordance with a traffic control plan as approved by the Town, and shall involve the use of uniformed police officers and as directed by the Town of Salem Police Department, and the furnishing, erecting and maintaining of temporary construction signs, barricades, channeling devices, lights or other warning devices as needed to provide safe travel for the public.

The Salem Police Department, Engineering Division or their duly appointed agent, may require the applicant to delay, suspend, or discontinue work until such time as acceptable traffic control is provided. In the event that work is suspended or cancelled as the result of inadequate traffic control the contractor shall be responsible for payment of the minimum detail charge.

A minimum one lane of traffic shall be maintained on all roads at all times. The minimum width for temporary traffic lanes shall be eleven (11) feet. Access for emergency vehicles shall be maintained at all times. Suitable access shall be provided to all properties and to all places of business at all times. Two-way traffic shall be restored/maintained when work is not in progress, at night, on weekends and on holidays (unless authorized by the Town).

When deemed necessary by the Town to facilitate construction, complete road closures will be considered only with the approval of the Municipal Services, Police Department, Fire Department, and School District. Whenever a complete road closure is permitted every effort shall be made to provide access for local residents and businesses. Detour routes shall be planned and appropriately signed to the satisfaction of the Town.

When the work area encroaches upon sidewalks or crosswalks, protective barriers and signs, together with appropriate warning and guidance devices, shall be utilized so that the passageway for pedestrians is safe and well defined.

Once approved, the permit is valid for the time specified in the permit and must be renewed prior to the expiration date. The work shall proceed in a continuous manner with diligence and expedition, so as not to obstruct the public places or travel thereon more than is reasonably necessary.

Upon completion of work and satisfactory restoration, as determined by the Engineering Division a warranty period shall start, the minimum period is one year and the maximum is three years and shall be determined by the Engineering Division, upon issuance of permit.

STANDARD CONSTRUCTION REQUIREMENTS:

Pavement Cutting

All bituminous concrete or concrete pavements shall be cut before any excavation is started. The pavement shall be neatly and uniformly saw cut at each side of all trenches to ensure against unnecessary damage to pavement. An acceptable alternative to saw cutting is cold planning.

Excavation

Excavation shall be performed in a manner as to produce the minimum possible width of disturbance. Excavation and handling of materials shall be performed in a manner as to minimize the possibility of cave ins. Sheeting and shoring shall be used in accordance with OSHA requirements to prevent such undermining. Pavement projecting over undermined areas, shall be saw cut square and removed. No opening or excavation in any street shall extend beyond the center line of the street before the excavated side of the street is made passable to traffic. Where a trench crosses a street, steel plates capable of bridging the trench and supporting traffic may be used.

Backfill

Backfill material may consist of material excavated during the course of construction if dry, but excluding pieces of pavement, frozen material, organic matter, top soil, muck, peat, clay, rocks larger than six inches, or any other deleterious material that is deemed unacceptable by the Engineering Division. If considered unsuitable for backfill, excavated material shall be replaced with granular backfill as specified in the "Standard Specifications for Road and Bridge Construction", State of New Hampshire, Department of Transportation (Sand-NHDOT 209.3 Gravel-NHDOT 209.4)

Excavated material shall be replaced or backfilled in layers or courses not to exceed twelve (12") inches in compacted thickness; and shall be compacted at or near optimum moisture content using pneumatic tampers, vibratory compactors or other approved means. Select materials immediately under the pavement (gravels and processed gravels or reclaimed asphalt) shall be replaced in kind or to a minimum depth of twelve (12) inches of gravel and four (4) inches of crushed gravel meeting NHDOT Standard Specifications for Road and Bridge Construction (Gravel NHDOT 304.2, Crushed Gravel 304.3)

Compaction

All excavated materials shall be compacted to a minimum of 95% of the optimum density (ASTM 1557 Method D). A compaction test performed by a certified material testing laboratory may be required. If required, the compaction test must be performed prior to paving and the results submitted to the Engineering Division. If a trench exceeds 100 feet in length, compaction tests shall be required every 100 feet prior to paving.

Work Zone Maintenance

The roadway shall be periodically swept to remove materials from the travelled way. The roadway shall be cleaned of all foreign materials at the end of each working day.

Trench Restoration

A typical section for permanent pavement repair is attached as a reference. In general these guidelines will be followed accordingly with the Engineering Division making the final determination on any variance in consideration of the application.

Bituminous Trench Patch

A temporary patch shall be placed using one of the following methods.

- Temporary patch method one - Bituminous Concrete binder course will be brought to the surface grade at a minimum depth of two and a half (2 ½) inches. This temporary patch will be maintained as necessary by the contractor and allowed to remain in place for a minimum of 30 days but not more than 60

days (Stabilization Period). At the end of the stabilization period the temporary patch will be cut out and the trench trimmed with neat straight cuts and square corners a minimum distance of twelve (12) inches onto undisturbed material beyond the limits of the temporary patch area or of the observed settlement area, whichever is greater. The contractor will add or remove crushed gravel and compact, if necessary.

- Temporary patch method two - the gravels shall be brought to the appropriate grade and Bituminous Concrete binder course brought to the surface grade. This temporary patch will be maintained as necessary by the contractor and allowed to remain in place for a minimum of 30 days but not more than 60 days. (The Stabilization Period) At the end of the stabilization period the temporary patch will be milled to the depth of one and one half (1 ½) inches a minimum distance of twelve (12) inches onto undisturbed material beyond the limits of the temporary patch area or of the observed settlement area, whichever is greater.

Permanent Patch shall be installed as follows:

Temporary patch and existing pavement shall be removed in a manner that results in no damage to adjacent pavement and shall be replaced with an equal depth but not less than four (4) inches (2.5" binder course Type B and 1.5" wearing course Type F) of hot bituminous pavement conforming to the Standard Specifications below.

Limits of saw cuts or milling for final patching shall be approved by the Engineering Division prior to execution of final paving. The Town may require the limits of the area to increase due to any damage in the work area.

In the case of a transverse or diagonal trenching, the pavement shall be cut to provide a diamond shaped patch with at least two (2) foot minimum overlap – four (4) foot in center if full width, of the final patch onto undisturbed material that will permit only one wheel of a vehicle at a time to strike the patch area.

An approved asphalt emulsion (tack coat) shall be applied to the face of all exposed joints of the existing pavement and between all pavement lifts. Rolling shall be done with a self-propelled roller weighing not less than eight (8) tons to achieve ninety five percent compaction and shall continue until a firm, even surface true to the lines and grade is obtained.

In cases where multiple excavations are made in a street which would result in multiple patches, the Engineering Division at their discretion may require a continuous patch or overlay across the entire work zone.

NOTES:

1. EXACT TRENCH PATCH METHODS SHALL BE DETERMINED BY THE ENGINEER BASED ON SITE SPECIFIC CONDITIONS. REFERENCE APPLICABLE TOWN OF SALEM TRENCH SECTION DETAILS FOR PROPER BEDDING REQUIREMENTS.

2. REFERENCE TOWN OF SALEM STREET EXCAVATION REQUIREMENTS FOR ADDITIONAL REQUIREMENTS AND INFORMATION. THIS DETAIL IS NOT COMPLETE WITHOUT ALL REFERENCED ITEMS.

3. **TEMPORARY PATCHING:** AN APPROVED BITUMINOUS PLANT MIX MATERIAL SHALL BE PLACED AND CAREFULLY GRADED AND ROLLED TO THE ADJACENT PAVEMENT GRADE AS A TEMPORARY PATCH. JUST BEFORE COMPLETION OF THE PROJECT AND AFTER SUITABLE EXPOSURE OF THE TEMPORARY PATCHES TO TRAFFIC COMPACTION, THE PAVEMENT SHALL BE SAWCUT, REMOVED AND REPAVED AS SHOWN.

4. TWO FOOT MINIMUM OVERLAP ON UNDISTURBED MATERIAL SHALL BE SAWCUT IN A DIAMOND SHAPE PATTERN THAT WILL PERMIT ONLY ONE WHEEL OF A VEHICLE AT A TIME TO STRIKE THE PATCH AREA. ON WIDER ROADS THE 4-FOOT DIMENSION AT THE CENTER OF THE ROAD MAY NEED TO BE EXTENDED TO MEET THIS INTENT. ALL SAW CUTS FOR THE FINAL PATCH SHALL BE AS DIRECTED BY THE PERMITTING AUTHORITY.

4A. INITIAL CUT LINE IN PAVEMENT SHALL BE ESTABLISHED DIRECTLY OVER TRENCH WALLS. FINAL CUT LIMITS SHALL NOT BE DONE UNTIL AFTER ALL EXCAVATION AND BACK FILL ACTIVITIES HAVE BEEN COMPLETED.

4B. CUT AND GRIND LIMITS SHALL BE EXTENDED FOR LARGER TRENCHES. SPECIFIC GRIND LIMITS SHALL BE DETERMINED BY THE PERMITTING AUTHORITY AT THE TIME OF CONSTRUCTION. ADDITIONAL CUT/GRIND LIMITS SHALL BE FIELD DETERMINED BASED ON DAMAGE TO THE SURROUNDING PAVEMENT.

5. SHOULDERS, OTHER THAN PAVED, DISTURBED DURING CONSTRUCTION, SHALL BE RESTORED BY EXCAVATING TO A DEPTH SUFFICIENT TO RECEIVE 6" CRUSHED BANK RUN GRAVEL WHICH SHALL BE GRADED AND COMPACTED ON A SLOPE OF 5% AWAY FROM THE PAVEMENT OR AS ORDERED BY THE TOWN. PAVED SHOULDER SHALL BE RECONSTRUCTED WITH IN-KIND GEOMETRY AND ACCORDING TO THE PAVEMENT SECTION DESCRIBED ON THIS TYPICAL.

6. OTHER HIGHWAY SLOPES AND SHOULDERS DISTURBED SHALL BE RESTORED IN-KIND WITH APPROPRIATE SLOPE AND EROSION PROTECTION MEASURES OR INSTRUCTIONS ISSUED BY THE TOWN.

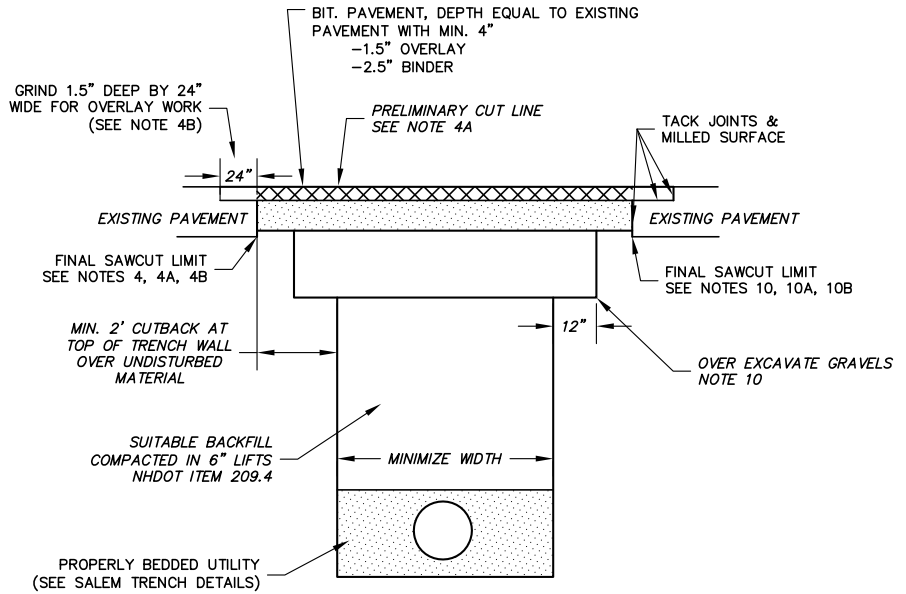
6A. ALL OTHER DISTURBED AREAS (CURB, SIDEWALK, GRASSED AREAS, WALLS, ETC.) SHALL BE RESTORED IN-KIND AND/OR AS DIRECTED BY THE TOWN ACCORDING TO ACCEPTED CONSTRUCTION PRACTICES.

7. TRAFFIC SHALL BE MAINTAINED, CONTROLLED AND PROTECTED BY SUITABLE WARNING AND/OR CHANNELIZING DEVICES, ADVANCE WARNING SIGNS AND FLAGS DURING THE PERFORMANCE OF THE WORK IN ACCORDANCE WITH THE TOWN REQUIREMENTS AND ACCEPTED CONSTRUCTION PRACTICES.

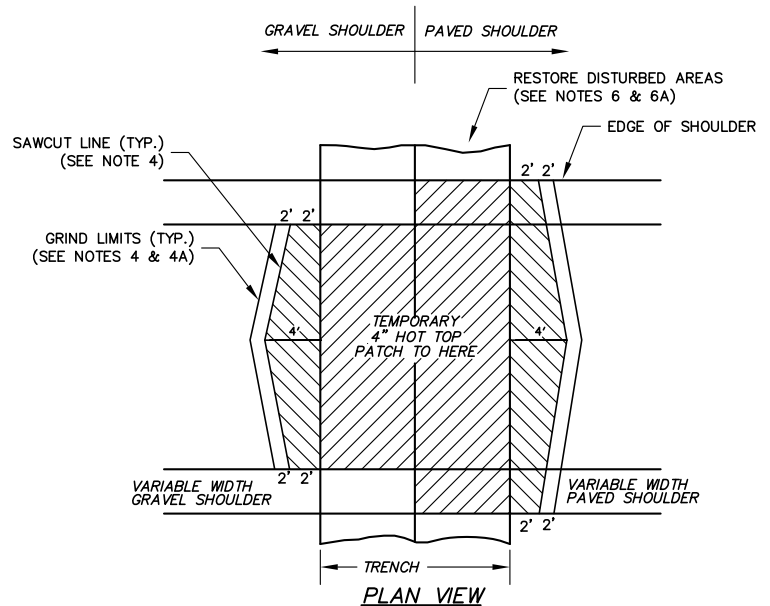
8. THE CONTRACTOR SHALL MARK ALL HAZARDS WITHIN THE LIMITS OF THE PROJECT AND CONNECTING ROADS. THESE DEVICES SHALL BE MOVED, SUPPLEMENTED, CHANGED OR REMOVED DURING THE PROGRESS OF THE CONSTRUCTION. UNIFORMED TRAFFIC CONTROL OFFICERS SHALL BE PROVIDED FOR THE PROTECTION OF THE PUBLIC WHILE WORKING WITHIN A TOWN RIGHT-OF-WAY.

9. IN ALL CASES, TRENCH SHALL BE PAVED FLUSH WITH EXISTING PAVEMENT AT THE END OF THE WORK DAY EXCEPT AS ALLOWED BY PERMITTING AUTHORITY.


10. UPON COMPLETION OF BACK FILL OPERATIONS THE EXISTING ROAD GRAVELS SHALL BE OVER EXCAVATED 12" BEYOND THE TRENCH WALL. THIS WORK SHALL NOT BE COMPLETED PRIOR TO COMPLETING BACKFILL AND COMPACTION.



SECTION VIEW



PLAN VIEW

 *Permanent Pavement Repair Detail*

NO SCALE