

**Town of Hooksett
Public Works Department**

MEMO

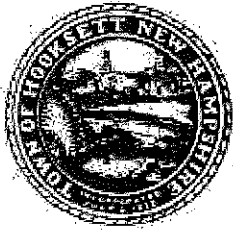
To: Excavators seeking to work on Town highways
From: Diane Boyce, Public Works Director
Date: August 7, 2015
Cc: Dr. Dean Shankle, Town Administrator
Re: Roadway Excavation Permits pursuant to Ordinance 13

Any excavation in a Town highway right of way requires a permit. Information relating to the permit is attached:

- A. Ordinance 00-13 Roadway Excavation (2 pages)
- B. "Town of Hooksett Street Opening Application and Permit regulations" (8 pages)
- C. Daytime Traffic Controlling (1 page)
- D. Warning Sign Package (1 page)
- E. State of NH DOT "AN APPROVED METHOD FOR PATCHING A TYPICAL PAVEMENT TRENCH"
(applicable to most Town highways, 1 page)
- F. Street Opening Application and Permit (1 page)

Prior to grant of a permit the applicant must:

1. Pre-mark proposed location of utility to be installed on the pavement or stake if outside of pavement.
2. Submit completed Application with required dig safe number, drawing with utility company approval, schedule, insurance certificates, minimum \$5,000.00 bond, and \$100.00 check for fee, payable to Town of Hooksett.
3. List all contractors on the project (excavators, pipelayer/tapping firms, testing firms, pavers, drillers and blasters, strippers, etc.), **with 24 hour emergency contact name and phone number.**
4. Furnish Insurance Certificates listing the Town of Hooksett as additional insured, for all contractors to be working in right of way
5. Furnish a bond, amount to be established by Public Works Director (for most common cuts a \$5000.00 amount is sufficient). Bond to cover 30 month period beyond completion of work.
6. Contact dig safe, and furnish number with application. Contact other Town utilities (water and sewer) for the location (these utilities are not members of DigSafe).
7. Have adequate, trained personnel to handle traffic control or arrange with Police Department for special duty to handle this responsibility.
8. Have adequate paddles, vests, signs, lights, barricades, etc. to properly direct traffic or install detours.
9. Furnish a drawing of the proposed cut showing existing and proposed utilities, extent of cut and patching, placement of traffic control signs, and detour signs, if a detour is required and permitted. Drawing to be approved by the utility company prior to submittal.
10. Furnish a schedule (work cannot begin until the permit is effective, and permanent patch cannot be installed until subgrade, base and subbase are approved).
11. Furnish an escrow for inspection and lab costs. Many permits will require inspection and testing of backfill/compaction and paving – This work will generally be performed by engineers and test labs hired for the project by the Town. The cost of this work is the responsibility of the applicant. The inspector's hourly fee is \$65.00 with a minimum of 4 hours, unused inspection escrow will be returned when approved final pavement is in place. If inspection is required, for most common cuts an \$800.00 amount is a sufficient deposit. If project is delayed or involved and escrow is depleted, it will be required to be increased, prior to release of bond.



Town of Hooksett

PUBLIC WORKS DEPARTMENT

Jim Donison

Assistant Public Works Director/Town Engineer

ROADWAY EXCAVATION APPLICATION & PERMIT (PER ORDINANCE 00-13)

APPLICATION DATE: _____

You are hereby given permission to excavate, per NH RSA: 236-9, & Roadway Ordinance 00-13.

_____ for the purpose of:
_____ on (date):
_____ at (time): _____. Work is to be performed in accordance with the street opening Regulations with Special Conditions as noted below:

Check here if continued on another sheet

I hereby agree to perform the work in accordance with the Street Opening Regulations and the above-stated Special Conditions.

My Dig Safe number is: _____. Valid after _____ (date & time). I understand that this permit is not valid until then, and until signed by the Hooksett Public Works Director.

Applicant Signature _____

Date _____

Applicant Address _____

Phone _____

APPROVED: _____
Asst. Public Works Director

_____ Date

The following Departments have been notified of the above Street Opening and have indicated their approval below:

Police Department _____

Fire Department _____

Water Precinct _____

Sewer Department _____

* There will be monitoring and fees assessed for any digging on a town road. This monitoring will be done by the Town Of Hooksett's engineering firm or by the Public Works Department.

Town of Hooksett
Public Works Department
35 Main Street
Hooksett, NH 03106
Phone: (603) 419-4003 Fax: (603) 485-4118

ROADWAY EXCAVATION
APPLICATION AND PERMIT
REGULATIONS

Roadway Excavation permits shall be issued by the Public Works Director. Anyone wishing to open or excavate in any street shall make an application for a permit on a form provided by the Highway Department Manager.

Work authorized by a permit shall be performed between the hours of 7:00am and 5:00pm weekdays, unless the Permittee obtains written consent from the Public Works Director to do the work during another time. Such permission shall be granted only in case of an emergency, the "Emergency Provisions" Section of this regulation shall apply.

The Permittee shall notify "Dig Safe" and receive confirmation of all utility locations. You can either call at 1-888-344-7233 or email your request to digsafe.com.

No opening or excavation in any street shall extend beyond the centerline of the street, before being backfilled and the surface of the street made passable to traffic.

No more than three hundred (300) feet measured longitudinally shall be opened in any street at one time, except by special permission of the Public Works Director.

Every Permittee shall be required to place around openings, excavations, encumbrances or obstructions, such barriers, barricades, lights, warning flags and danger signs as may be required by NH DOT, Town of Hooksett and the Public Works Director, to protect the safety of the general public. During the hours of darkness adequate artificial lighting devices are required to protect the public and call attention to and indicate the actual location of obstructions and hazards.

All barricades, warning signs lights, temporary signals and other protective devices shall conform with the edition of the "Manual on Uniform Traffic Control Devices for Street and Highway Administrator as the National Standard for all highways open to public travel.

Traffic control devices shall be set up prior to the start of construction or maintenance operations and shall remain in place only as long as needed, as required by the Public Works Director. Advertisements, notices and signs other than for traffic control shall not be displayed on or attached to any barricade or fence in any highway.

Street Opening Regulations:

A minimum of one lane of traffic shall be provided on all streets at all times. The minimum width for temporary traffic lanes is eleven (11) feet. Access shall be provided to all property at night and on weekends, and shall be provided to all places of business at all times.

If a complete street closure is necessary, at least seven (7) working days' notice is required to the Public Works Department, Police, and Fire Departments with confirmation of the proposed closure three (3) working days in advance of the actual street closure. The Public Works Director shall review and approve any detours required. If an emergency necessitates the complete closing of a street, the closing shall be governed by the "Emergency Provision" section of this regulation.

When the work area encroaches upon a sidewalk, walkway or crosswalk area; protective barriers, together with appropriate warning and guidance devices and signs, must be utilized so that the passageway for pedestrians is safe and well defined.

The location of all utility facilities shall be determined sufficiently ahead of trench excavation work and appropriately marked on the road or other location clearly visible to equipment operators, inspectors, and officials.

Property or street line monuments survey reference points and permanent survey bench marks shall not be moved or disturbed, unless specifically permitted in writing by the Public Works Director. In the event that a survey bound pin, bench mark, or other such permanent reference is disturbed it shall be replaced by a NH registered licensed surveyor and all cost paid by the applicant.

Provisions shall be made to provide for proper drainage during construction, and the Permittee shall be responsible for all claims for damage or injury, whatsoever, that may arise from the obstruction or use of any public sewer or drain in connection with the work contemplated under the permit.

Trees shall not be cut or trimmed without the approval of the property owner or the Town. Where excavations may affect the tree, provisions and care shall be taken to protect the tree. Permanently damaged and/or destroyed trees shall be replaced "in kind", size and type of tree, or as agreed by the property owner the Town.

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 contact using pneumatic tampers, vibratory compactors or other approved means. The material shall be compacted to not less than 98% maximum dry density as determined by the Standard Proctor Method in accordance with Standard Specifications.

Street Opening Regulations:

If unsuitable for backfill, excavated material shall be replaced granular backfill as specified in the "Standard Specifications for Road and Bridge Construction", State of New Hampshire Department of Public Works and Highways, hereinafter referred to as "The New Hampshire Standard Specifications". Water shall be uniformly applied during compaction in the amount necessary for proper consolidation, but puddling will not be allowed.

The minimum depth to any substance except manholes, vault entrance tubes, valve casing and catch basins shall be twenty four inches below the surface of the nearest edge of the traveled portion of the street, and no excavation shall be less than 20 inches in length or width.

Within the asphalt paved areas, crushed gravel (as described in New Hampshire Standard Specifications) equal to the existing gravel course shall be placed in layers not exceeding six (6) inches loose depth and thoroughly compacted. In no case shall the compacted depth of crushed gravel be less than twelve (12) inches.

In other areas, the present surface type shall be restored by placing similar materials on top of the trench to a depth equal to that existing before excavation. Any existing grassland, additionally, shall be fertilized and reseeded. Any asphalt or concrete sidewalk shall be replaced with equal width, depth, kind and quality material and as specified by the Public Works Director.

As the work progresses, all streets shall be thoroughly maintained and cleaned as necessary and at least daily of all rubbish, excess earth, rock and other debris resulting from such work.

As the work progresses, all streets shall be thoroughly maintained and cleaned as necessary and at least daily of all rubbish, excess earth, rock and other debris resulting from such work.

After an excavation is commenced, the work shall be prosecuted with diligence and expedition, and the road shall be maintained in a safe, well-marked, with required signage, and in a well graded condition to permit public travel and not obstruct public access or private places. The surface of the street shall be permanently restored to original or improved condition within a period of time not to exceed five (5) days from the date of completion of the project to the satisfaction of the Public Works Director.

The Public Works Director as a condition of the permit, reserves the right to restore the highway or cause the same to be restored under his directions, and the Permittee shall reimburse the Town for any or all liability and expense suffered by reason of such work. In the event that a bond, cash or other security is held by the Town for the work it shall be taken as a portion of the reimbursement.

Street Opening Regulations:

The Permittee further agrees to indemnify and save harmless the Town of Hooksett, New Hampshire, from all claims for damage or injury whatsoever, that may arise from the encumbrance, obstruction, or use of the aforesaid highway, the Town of Hooksett in no case, assuming any responsibility or liability by reason of granting this permit.

The person, partnership, firm, corporation, etc., who obtains the permit to excavate a town highway, shall be responsible for said excavation for thirty (30) months after all work contemplated under the permit has been completed and the Public Works Department so notified, and may be ordered by the Public Works Director at any time during the thirty (30) month period to improve or replace the work.

Each applicant for a permit shall be accompanied by a plan drawn to an approved scale, sufficient in detail to provide for easy field location of the work. Upon the completion of the pavement restoration, the Public Works Department shall be immediately notified as to the location and time of completion.

As a condition of this permit, the Permittee agrees that the excavation after being properly backfilled, shall have a permanent patch placed on the excavation under the patching guideline.

Patching Guideline:

Cuts shall be parallel or perpendicular to the line of the trench. In the case of transverse or diagonal trenching, the pavement shall be sawn to a two-foot minimum overlap on undisturbed material that will permit only one wheel of a vehicle at a time to strike the patch area. Within the sawn limits of the final patch, the existing pavement and any temporary patch material shall be removed and replaced with an equal depth of Type 1-1 asphaltic concrete laid and compacted to meet the existing pavement edge exactly. The face of all joints shall be painted with asphalt cement before the asphaltic concrete is placed.

In cases where multiple excavations are made in a street which would result in the edge patches being closer than 20 feet, the Public Works Director may require a continuous patch and/or complete overlay. The entire width of the road and a minimum of 25 feet each end beyond the outer limits of the trenches.

On surface treated gravel highways, feathering the edges of patches will be allowed. Within area of cement concrete or stone base overlaid with asphalt, the department will require the placement of the cement concrete or stone base with Class "A" Portland Cement Concrete, reinforced or non-reinforced, as specified in the New Hampshire Standard Specifications, to a depth equal to that removed and then overlay with Type 1-1, Asphaltic concrete as specified above.

The permittee agrees to furnish a continuing surety bond or cash in the amount of five thousand (\$5,000.00) (except that the Public Works Director may require up to ten (10) times the amount, depending on the volume of the work being performed by the permittee) guaranteeing the fulfillment of the provisions, instructions and regulations prescribed above and later instruction issued by the Department during the performance of the work and satisfactory maintenance of the disturbed areas for a period of thirty (30) months following the completion of the work. The permit shall be kept with the foreman of the applicant at the place where the work is being performed and shall be produced for examination upon request by Town officials.

The permittee, as a condition of the permit, shall agree to indemnify and protect the Town of Hooksett and its Departments, Commissions, and Agencies against all liability, claims, or demands for injuries or damage, including claims for loss or interruption of business in cases where the encumbrance or construction impedes the flow of traffic, to any person or property arising out of activities of the permittee, it's servants, employees, agents, representatives or subcontractors.

The permittee, as a condition of the permit, shall agree to carry the following insurance:

- A. Comprehensive General Liability Insurance with limits not less than \$1,000.00 per occurrence for bodily injury and \$500,000.00 per occurrence for property damage and automobile liability insurance with limits not less than \$500,000.00 per person and \$1,000,000.00 per occurrence for bodily injury and \$500,000.00 per occurrence for property damage covering all activities of the permittee for the full period of the permit. Such insurance shall include the Town of Hooksett and the Public Works Department, including all officials and employees thereof. Such insurance shall include:
 - a) All activities including use of all vehicles.
 - b) Contractual liability covering this permit.
 - c) Coverage for the so-called "x,c,u," hazard i.e. collapse of building, blasting, and damage to underground property.
 - d) Complete operations hazard for a period of at least two years following the acceptance by the Highway Department of the completed permit.
 - e) "Personal" injury coverage (in addition to "Bodily Injury").
- B. The PERMITTEE shall carry Workmen's Compensation Insurance including Employer's Liability Insurance with limits of \$1000,000.00 whether or not required by the New Hampshire Revised Statutes Annotated, 1955, as amended, for all activities of the PERMITTEE during the period of the permit.
- C. Insurance similar to that required of the permittee shall be provided by, or on behalf of all independent contractors used by the PERMITTEE during the period of this permit. The PERMITTEE shall be held responsible for any modifications in these insurance requirements as they apply to independent contractors.

- D. Insurance certificates evidencing the above coverage are to be furnished to the Public Works Department prior to issuance of the permit, and shall provide for not less than thirty (30) days prior notice to the Public Works Department of any cancellation of major change in the policies.
- E. The purchase of the insurance required or the furnishings of the aforesaid certificates shall not be a satisfaction of permittee's liability hereunder or in way modify the Permittee's indemnification responsibilities to the Town of Hooksett.

The Public Works Department may revoke any permit issued under the regulation at any time.

Emergency Provisions:

Emergency requirement to excavate in or close to Town highways shall be done by emergency permit issued by the Public Works Director or his representatives.

If such an emergency exists, the Police, Fire, Water, Sewer and Public Works Departments, as a minimum, shall be notified immediately by telephone. At the earliest opportunity available, a representative of the Permittee shall obtain an emergency permit form. During the next business day, a regular permit form shall be applied for at the office of the Public Works Department.

The Public Works Director reserves the right to waive any of the provisions of this regulation in case of an emergency, and to impose such conditions as he may require, as part of an emergency permit.

Penalty:

Any person who violates any provisions of the regulations made under the authority thereof shall be guilty of a violation if a natural person, or guilty of a misdemeanor if any other person; and subject to a fine not to exceed \$100.00 per day for each offense.

Town of Hooksett, New Hampshire

Public Works Department

WINTER CONSTRUCTION PROCEDURES FOR PAVEMENT RESTORATION

EFFECTIVE FROM NOVEMBER 15 THROUGH APRIL 1

1. If hot bituminous concrete asphalt is available, three (3) inches of temporary hot bituminous pavement (1/2" aggregate) shall be used.
2. When hot bituminous pavement is not available and when deemed necessary by the Highway Department, the following procedures to be adhered to:
 - A. A three (3) inch pavement of Class "A" (3000 p.s.i.) concrete shall be placed.
 - B. The concrete shall be placed over a prepared crushed gravel base.
 - C. The concrete shall have a one percent (1%) calcium chloride added in order to accelerate curing.
 - D. The concrete placed shall be brought up even with the elevation of the existing asphalt pavement.
 - E. The surface of the pavement will have a rough broom type finish placed perpendicular to the flow of traffic.
 - F. The concrete pavement shall be protected from freezing for a minimum of two days by covering it with polyethylene plastic or hay and polyethylene plastic. The length of protection and curing may be increased or decreased by the Public Works Department depending on the daily temperature.
3. The following spring, when hot bituminous pavement becomes available, the temporary concrete pavement shall be removed and replaced with pavement as required in the Public Works Department Street Opening Regulations.
4. The permittee shall maintain the temporary patch until permanent restoration can be performed.

DAYTIME TRAFFIC CONTROLLING

Traffic control is a vital public service.

Functions of Flagging.

Guide traffic safely through work areas.

Make every effort to give the traveling public the right of way.

Protect the lives of workers.

Avoid unreasonable delays to the traveling public or work crew.

Answer reasonable questions courteously and intelligently.

Clothing and Equipment.*

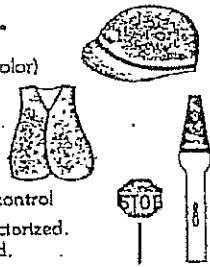
Hard hat (orange or other bright color)

Safety vest

Hand paddle "Stop/Slow"
at least 18" wide with 6" letters
(keep spare handy)

Flashlight with 6" wand for night control

*All gear used at night must be reflectorized.
Flagging station should be illuminated.



DO'S

- Be alert.
- Wear equipment properly
- Stand clear, in good view
- Know plans
- Treat every driver as you would like to be treated

DON'TS

- Stand in, open traffic lane
- Turn your back on traffic
- Walk between vehicles
- Leave your position unattended

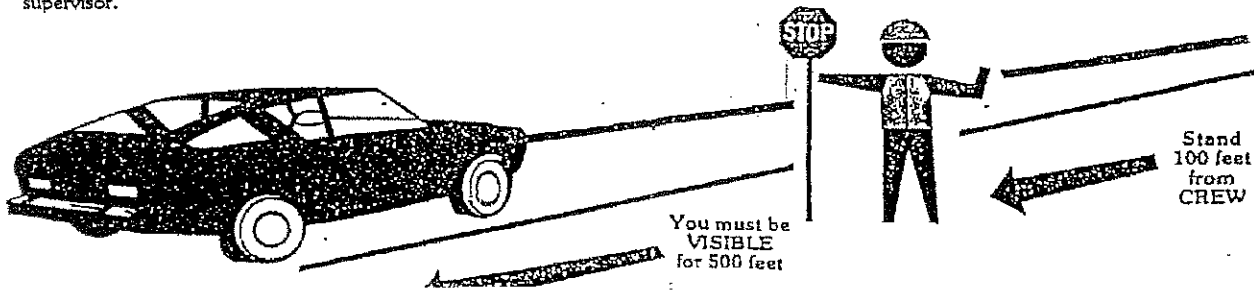
STATION OR POSITION

The flagperson shall stand in a conspicuous position on the right edge of the traveled way FACING THE DIRECTION OF THE APPROACHING TRAFFIC. The position taken should be near enough to the workers being protected so that there is no doubt as to the flagperson's purpose, but not so close as to be mistaken for one of the workers. This position may vary up to 500 feet depending upon sight distances, etc.

In urban areas the distance from the flagperson to the worksite can be reduced. Special care must be taken to avoid long traffic delays that may "clog up" the local street system.

At a "spot" work site it may be necessary to stand on the shoulder of the left hand lane or opposite the work site in order to effectively control the traffic. Flagging positions must be adequately covered by proper advance warning signs and night time stations must have adequate illumination.

A flagperson should not leave the flagging station to pick up or replace signs or barricades. This is the responsibility of the supervisor.



Traffic control procedures with paddles

- To stop traffic
 - Face the traffic
 - Extend the paddle in a vertical position so the "STOP" side is visible to oncoming driver
 - Make eye contact with driver
 - Raise and expose palm of free hand to indicate vehicle is required to stop
- To alert and slow traffic
 - Extend the sign paddle vertically with the "STOP" side visible to driver
 - Before vehicle comes to a complete stop, turn paddle to show "SLOW" side
 - For emphasis the free hand may be raised and lowered with the palm down
- To release traffic
 - Step to side of road
 - Show "SLOW" side of paddle
 - With free hand, motion traffic to proceed



Traffic Control With Flags

Flags to be used only when paddles not available.

- To stop traffic
 - Face traffic and extend flag horizontally across the traffic lane in stationary position. Raise free hand, palm up, toward traffic.
- To alert or slow traffic
 - Face traffic and slowly wave flag in a sweeping motion of the extended arm from shoulder level to straight down, without raising the arm above the horizontal position.
- To release traffic
 - Stand on side of road with flag and arm lowered to your side. Motion traffic ahead with free hand.

FLAGS SHALL NOT BE USED TO SIGNAL TRAFFIC TO PROCEED.

New Hampshire Department of Transportation

REMEMBER

**THE FLAGPERSON SHOULD BE VISIBLE AT ALL TIMES
NEVER STAND IN AN OPEN TRAFFIC LANE
STAND ALONE AND DON'T PERMIT WORKERS TO
GATHER AROUND YOU
DO NOT STAND NEAR EQUIPMENT
DO NOT WATCH THE OPERATIONS
NEVER TURN YOUR BACK TO THE TRAFFIC**

Your job is to provide the motorist with guidance. You will lose their respect and add to their confusion by turning your back to them.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

AN APPROVED METHOD FOR PATCHING A TYPICAL PAVEMENT TRENCH

1. All back fill material placed in trenches shall be compacted in layers not exceeding 6" (six inches) in compacted thickness at near optimum moisture content using pneumatic tampers, vibratory compactors or other approved means. The material shall be compacted to no less than 95% of American Association of State Highway Officials, Method of Test 199, Method C. Water shall be uniformly applied during compaction in the amount necessary for proper consolidation, but puddling will not be allowed.

1A. Within paved areas, Class A Crushed Gravel, (as described in N.H. Standard Specification equal to the existing gravel course, shall be placed in layers not exceeding 9" (nine inches) loose depth and thoroughly compacted. 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 patch. Traffic completion, the pavement shall be sawn on either side of the trench to provide a two foot minimum overlap of the final patch on undisturbed material. In the case of transverse or diagonal trenching, the pavement shall be sawn to provide a flat diamond shaped patch with a two foot minimum overlap on undisturbed material that will permit only one wheel of vehicle at a time to strike the patch area. Within the sawn limits of the final patch, the existing pavement and temporary patch material shall be removed and replaced with an equal depth of type I-1 HOT asphaltic concrete, loyed and compacted to meet the existing pavement edge exactly. Saw cuts for final patching shall be as directed by the District Engineer.

3. Shoulders, other than paved, disturbed during construction, shall be restored by excavat to a depth sufficient to receive 3" crushed bank run gravel which shall be graded and compact on a slope of 6/8" per foot away from the pavement or as ordered by the District Engineer

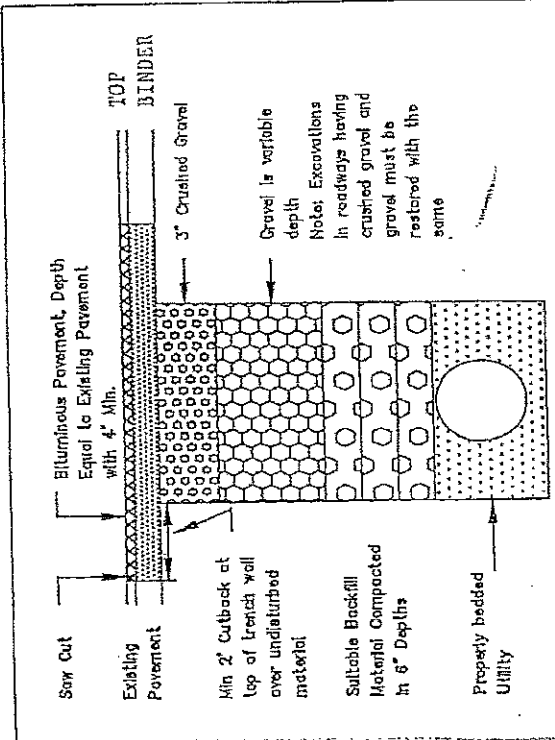
3A. Other highway slopes and shoulders disturbed shall be replaced per the respective subdivisions of this Permit or instructions issued by the District Engineer.

4. In other area, the present surface type shall be restored by placing similar material into trench to a depth equal to that existing before excavation. Any existing grass land addition shall be fertilized and reseeded. Any asphalt or concrete sidewalks shall have surfaces of ac depth, kind and quality placed.

5. Traffic shall be maintained, controlled and protected by suitable warning and/or channelizing devices, advance and standard warning signs and flags during the performance of the work as shown on the attached "WARNING AND SIGN PACKAGE". 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. Unformed traffic control officers shall be provided for the protection of the public whenever two way traffic cannot be maintained one/ or at the request of the District Engineer.

6. This permit is to be used in conjunction with the Standard Trench Permit ALL SAW CUT FOR THE FINAL PATCH SHALL BE AS DIRECTED BY THE DISTRICT ENGINEER.

7. In all cases, trench is to be flush with existing pavement at the end of the work day.



PERMANENT PAVEMENT REPAIR TYPICAL

