# TOWN OF NEEDHAM, MASSACHUSETTS
# DEPARTMENT OF PUBLIC WORKS
500 Dedham Ave., Needham, MA 02492
(781) 455-7550

# Street Permit Procedures & Regulations
# Promulgated By The Board of Selectmen
# Effective April 1, 2012

Questions? – Call: Joe Hobbs Street Permit Inspector @ (781) 455-7550
Tom Ryder, Asst. Town Engr. @ (781) 455-7550
www.needhamma.gov/dpw
www.muted.fhwa.dot.gov

BOS voted 3/27/12

TOWN OF NEEDHAM

DEPARTMENT OF PUBLIC WORKS

STREET PERMIT PROCEDURES & REGULATIONS

TABLE OF CONTENTS

SECTION 1 GENERAL PROVISIONS

SECTION 2 DEFINITIONS

SECTION 3 APPLICATION FOR PERMIT

SECTION 4 PERMIT FEES

SECTION 5 BOND AND INSURANCE REQUIREMENT

SECTION 5 ISSUANCE OF PERMIT

SECTION 6 EMERGENCY PERMITS

SECTION 7 INDEMNIFICATION

SECTION 8 PROTECTIVE MEASURES AND TRAFFIC CONTROL

SECTION 9 CONSTRUCTION REQUIREMENTS

SECTION 10 INSPECTIONS

SECTION 11 PENALTIES

SECTION 12 MORATORIUMS

SECTION 13 REVISIONS & SEVERABILITY

SECTION 14 EFFECTIVE DATE

Appendix A D.T.E 98-22

Appendix B Street opening permit application and license forms

Appendix C Driveway Opening Detail

Appendix D Corner Reconstruction Detail

Appendix E Excavation and Trench Safety Summary

## SECTION 1 GENERAL PROVISIONS

Street permit procedures are promulgated by the Department of Public Works pursuant to the authority granted under Sections 23 and 31 of the Town Charter and Section 2.2.5.1.4 of the General By-Laws.

Excavation and Trench Safety procedures are promulgated by the Department of Public Safety and the Division of Occupational Safety pursuant to authority granted by M.G.L. c. 82A. Requirements established in 520 CMR 14.00 and pursuant to section 2.2.5.4 of the General By-Laws are hereby included in this document.

The purpose of these procedures is to establish reasonable standards to protect the safety of the general public, to avoid interference with other road construction projects and to provide a uniform standard of construction for work within public ways or lands under the control of the Town.

These procedures may be revised from time to time in order to remain consistent with other State, Federal, or local Laws, regulation, or policy.

## SECTION 2 DEFINITIONS

Applicant – the person who is applying for a permit or license under these procedures and the person to whom the permit or license is issued.

Competent Person - a person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Excavator – Any entity including, but not limited to, a person, partnership, joint venture, trust, corporation, association, public utility, company or state or local government body or public agency which performs excavation operations including the excavation of trenches.

Grades Card – An index card issued by the building department that requires a signature from DPW staff confirming that all town specifications have been met in order to obtain a certificate of occupancy.

License- Written permission issued by The Needham Department of Public Works to an applicant who has been approved to do work in accordance with the Town's Street Permit procedures.

Person – any individual, group of individuals, association, partnership, corporation, company, business organization, trust, estate, the Commonwealth or political subdivision thereof to the extent subject to Town by-laws, administrative agency, public or quasipublic corporation or body, and any other legal entity, its legal representatives, agents or assigns.

Street – Entire width between the boundaries of every town owned public way or easement.

Street Permit –A permit issued by the Needham Department of Public Works to an Applicant for occupying, obstructing, or excavating within a street, easement, or public or private property.

Trench –An excavation which is narrow in relation to its length, made below the ground surface in excess of 3 feet below grade and the depth of which is, in general, greater than the width, but the width of the trench, as measured at the bottom, is no greater than 15 feet.

Trench Permit – A street permit issued to perform trench excavation work.

Work – Opening, occupying, obstructing or excavating in a public way or excavating a trench on public or private property.

Work day – a period of time between 7:00 a.m. and 5:00 p.m. occurring on a day of the week, except Saturdays, Sundays and holidays observed by the Town of Needham Department of Public Works. The hours may be modified as indicated on the permit.

## SECTION 3 APPLICATION FOR LICENSES AND PERMITS

### SECTION 3.1 License Requirements

No person may occupy, obstruct, excavate within a street or excavate a trench on public or private property prior to becoming licensed by the Town of Needham. Licenses may be issued by the Department of Public Works in 3-year cycles. All existing licenses will expire on December 1, 2012, and thereafter applicants must seek a renewal of their license if they intend to continue to perform work in the Town. A license renewal fee of $300 will be required for renewal. Persons seeking to renew their license shall provide a copy of their Massachusetts Hoisting License for licenses that allow for excavation in a public way or any trench on a private or public way, a completed license application form, a check in the amount of $300 payable to the Town of Needham and shall have had no outstanding violations in the previous licensing period. Examples of violations include but are not limited to, working without a street permit or trench permit, working in violation of the restrictions of street permits such as after 5 PM or on weekends, or work that does not meet town specifications. Such person upon receipt of a license commits to having a competent person on site in accordance with 520 CMR 14.00

Needham Department of Public Works shall require a signature committing the applicant to compliance with the requirements; a valid e-mail address and 24 hour phone number. A list of licensed contractors will be made available to the public via the Town of Needham website and shall be updated on an annual basis.

SECTION 3.2 Street Permit Requirements

Bond and Insurance Requirements

The holder of the permit shall be insured by an insurance carrier licensed to operate in the Commonwealth of Massachusetts. The minimum acceptable insurance amounts are as follows:

| Public/General Liability | | |
|---|---|---|
| Bodily Injury | $100,000/person | $500,000 single limit |
| Property Damage | $300,000/accident | $500,000 single limit |

Depending on the amount, complexity and length of time that a proposed construction work is expected, the Director of Public Works may require an increase of the above minimum insurance limits prior to issuing a permit to the licensed person.

Prior to the issuance of a permit, the Applicant shall deposit, with the Town, a Surety Bond in an amount and form as shall be determined by the Director of Public Works. The amount of the Surety Bond may also be established separately for each permit so that the Town will be protected against loss in the event of the failure of the permit holder to complete the work or make required repairs or restoration of damages involving the work or encroachment authorized by the permit.

The amount of bond for Street Permits shall be computed on the basis of cost required to make proper restoration or repairs. Immediately upon approval of an application for a permit, the Director of Public Works or his designee shall advise the Applicant as to the amount of bond required. An annual blanket Surety Bond, acceptable to the Director of Public Works, may be deposited to avoid the inconvenience and expenses of obtaining individual bonds for each permit requested. The minimum annual bond amount shall be $5000.

The bond shall be released to the permit holder upon the expiration of the guarantee period. The guarantee period shall be for a period of one year following the placement of the permanent patch (except in cases of work in a road under a moratorium see Section 13). During the guarantee period, the Applicant shall be responsible for the repair and restoration of the surface.

An application for permit must be filed by a licensed person with the Town of Needham prior to any work on, in, within, under or over any Town-owned right of way, easement or land. Standard application forms for this permit may be obtained from the Department of Public Works.

An application for a Street Permit must be filed with the Department of Public Works or Board of Health prior to starting excavation of any Trench. The Applicant shall comply with the Federal Occupational Safety and Health Act, and any and all regulations promulgated by the Massachusetts Department of Public Safety pursuant to MGL c.82A and 520 CMR 14.00 (as amended) and the Town of Needham Bylaws, regulations, policies, and procedures.

Each application form shall be completely filled out and signed by the licensed person and shall be accompanied by the appropriate plans and permit fees. The completed application shall be submitted to the Department of Public Works. Applications for sub surface sewage works disposal permits are licensed under the permit issued by the Board of Health for that work under each permit issued by the Board of Health.

When applications are made for permits, complete plans and specifications must be submitted at the time of application. The plans shall be drawn at a scale of 1"=40' or greater scale, shall be drawn on the Form provided and shall contain the following minimum information.

General Information:

Address(es) of the area where work is proposed
Name, address and telephone number of the person preparing the plan
Name, address and telephone number of the Applicant
Street name(s) of the roadway(s) being affected
North arrow
Scale of the plan

Within 100 Feet of All Proposed Work:

All property lines, all utility poles and numbers, mailboxes, signs, trees and above ground utilities
All underground utilities
All driveways, intersections and limits of pavement
All fences, walls, guard rails, curbing, berms and rock outcrops
All ditches, swales and streams
All wetland and flood plain areas
All pavement markings

The plans shall show the approximate location and extent of the proposed work. For work requiring a Street Permit application, a traffic control plan or procedure shall also be submitted indicating how the public will be protected and public access continued through the work areas. Details shall include the number of uniformed police officers required by the Chief of Police, the location of barriers or barricades, lights, and warning signs. All safety devices shall comply with and be installed in accordance with the Manual on Uniform Traffic Control Devices, current edition and with the Division of Occupational Safety Requirements.

No Permit and/or license will be issued to an Applicant and work will not be allowed to commence unless the Applicant and property owner of the site are current with all town fees.

Notification requirements

The Applicant shall in accordance with the General Laws of the Commonwealth of Massachusetts give notice to public utility companies before excavation. A valid "Dig Safe" number shall be obtained for each application. The Applicant is also required to notify the Water and Sewer Division for dig safe markings of water, sewer, drain, and Highway Divison for traffic signal loops/conduit.

A twenty-four (24) hour notice to the Town Engineer or his designee prior to the start of work in the street or of a trench is required. The Street Permit may also have additional inspection notification requirements listed as part of the conditions of the permit.

Permit Completion

Upon completion of construction work related to the Street Permit, the Applicant shall notify the Department of Public Works that the work has been completed in conformance with the permit. The site will be inspected and if it is determined that all aspects of the project are properly complete, the permit will be closed out. If the construction does not meet all criteria specified in the permit regarding the completeness of the project, a notice will be issued to the Applicant outlining the incomplete items.

In the event that a Street Permit cannot be closed out during the period between April 1st and November 30th, the applicant may submit a letter requesting approval of the work contingent upon its completion in order to obtain an occupancy certificate from the Building Department. Such written request shall include at a minimum: The date which work is expected to be completed, licensed persons that will be completing the work and a current Street Permit must be obtained by the licensed person. The Department of Public Works may provide guidance in the form of a standard letter that may be submitted for this request. If the request is not approved, the applicant will receive written notification of the reasons why the request was not accepted.

SECTION 4 PERMIT AND LICENSE FEES

At the time of filing an application, all fees for the permit shall be paid by the Applicant. The fees are based on cost intended to cover the Town's administrative, technical, and inspectional review cost. The fee schedule is as follows:

| | |
|---|---|
| Street Occupancy Permit Fee - | $100 |
| Street Excavation Permit Fee - | $325 First 50 linear feet in Right of Way |
| | Plus $1 per foot additional charge in excess of 50 Feet |
| License Fee | $300 |
| Trench Excavation Fee | $50 |
| *Street Permit including Proposed Sidewalk Improvements | $100 |

*The town recognizes a property owners desire to improve the sidewalk areas in front of their property. Street permits that include the re-construction of a sidewalk which improves the town's infrastructure along the frontage of the homeowner's property shall have the permit fee reduced to $100. The sidewalk requirements for construction shall conform to the minimum standards required by the Town.

SECTION 5 ISSUANCE OF PERMIT

A permit may be issued after proper completion of all aspects of the application for permit, a validly held street permit license, receipt of a surety bond and certificates of insurance showing insurance coverage in the required amounts; receipt of a DIG SAFE confirmation number; confirmation of notification of Water and Sewer, identification of the competent person responsible for work conducted under the permit, and payment of fees as required in these procedures.

A permit must be signed by the Director of Public Works or his designee before it becomes valid and will include an expiration date and a list of conditions. Permits will be issued within 2 working days after the complete application has been received including any bond amounts and fees, and approval by the Director. No work may commence until the Applicant has received a signed permit.

Permits issued under these procedures are valid for a period of 30 calendar days unless stated otherwise on the permit. Work may only be performed on work days between the dates of April 1st and November 30th inclusive and between the hours of 7:00 a.m. and 5:00 p.m. Except as permitted under the Emergency Permits Section of these procedures, no work shall be conducted on other than the above specified dates and times. Permits may be extended through November 30 of the current year. In the event of the Permit holder's failure to strictly comply with these procedures or permit conditions, the permit issued shall be revoked effective immediately upon making written notification of the violation to the Applicant by hand delivery or by ordinary mail, postage prepaid, addressed to the Applicant's address as shown on the permit.

A permit holder whose permit has been revoked will be subject to a license review which may result in the revocation of his/her license.

## SECTION 6 EMERGENCY PERMITS

Oral permission may be granted by the Director of Public Works or his designee to perform emergency work, such as repair of broken gas or water mains, sewer mains or drain lines, telecommunication lines, or electric service conduits. On the first working day following oral permission, the person receiving such permission shall file for a permit in the manner prescribed for non-emergency work.

## SECTION 7 INDEMNIFICATION

The Applicant shall agree as a condition governing the issuance of a permit that the Applicant will indemnify and hold harmless the Town of Needham, the Director of Public Works and its agents and employees from any and all claims and action whatsoever arising from the exercises of said permit. The Applicant's signature on the permit application shall be deemed to be an acknowledgment and agreement with the above condition.

The Applicant shall agree as a condition governing the issuance of a permit that if it becomes necessary for the Town to incur legal fees or expenses to defend or enforce any of the terms or conditions of the permit, the Applicant shall reimburse the Town for any such fees and expenses reasonably incurred by the Town.

## SECTION 8 PROTECTIVE MEASURES & TRAFFIC CONTROL

It shall be the responsibility of the Applicant to make certain that the security of the traveling public is safeguarded and its rights are not unreasonably curtailed. The Applicant shall place around openings, excavations, encumbrances or obstructions, such barriers, barricades, lights, warning flags, danger signs and traffic control personnel as are required by the Department of Public Works and the Police Department to protect the safety of the general public. Adequate artificial lighting devices are required to 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 current edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways" and with the Division of Occupational Safety Requirements. 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 or required by the Department of Public Works. Advertisements, notices and signs other than for traffic control shall not be displayed on or attached to any barricade or fence in any right of way.

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.

If any work requires a detour of a section of road, the Applicant shall submit at least 5-days in advance a traffic management plan to the DPW, Police, and Fire Department for review.

SECTION 9 STREET PERMIT CONSTRUCTION REQUIREMENTS

All construction shall comply with the "Standards To Be Employed by Public Utility Operators When Restoring Any of the Streets, Lanes and Highways in Municipalities" (see Attached) as promulgated by the Massachusetts Department of Telecommunications and Energy (MDTE) 98-22, and shall also comply with the following requirements:

GENERAL CONSTRUCTION

Workmanship

As the work progresses, all streets shall be kept cleaned of all rubbish, excess earth, rock and other debris resulting from such work. All material excavated from trenches, and piles adjacent to the excavated trench in any street, shall be piled and maintained in such a manner as not to endanger those working in the trench, pedestrians, or users of the street, and so that as little inconvenience as possible is caused to those using the street from adjoining properties. Whenever necessary, in order to expedite the flow of traffic or to abate the dirt or dust nuisance, the boards or bins may be required by the Town to prevent the spreading of dirt into traffic lanes. Where the confines of the area being excavated are too narrow to permit the piling of excavated material beside the trench, the Town shall have the authority to require that the Applicant haul the excavated material to a storage site and then re-haul it to the trench site at the time of backfilling.

It shall be the Applicant's responsibility to secure the necessary permission and make all necessary arrangements for all required storage and disposal sites.

Dust control shall be provided as necessary to prevent a nuisance to abutters and surrounding areas. Dust control shall be by wetting or use of calcium chloride or other approved methods.

Protection of Adjoining Properties and Facilities

The Applicant shall not interfere with any existing facility without the written consent of the Town and/or the owner of the facility. If it becomes necessary to relocate an existing facility, this shall be done by its owner. No facility owned by the Town shall be moved to

accommodate the Applicant, unless the cost of such work will be borne entirely by the Applicant. The cost of moving privately owned facilities shall be similarly borne by the Applicant unless it makes other arrangements with the person owning the facility. The Applicant shall support and protect, by the use of timbers, all piles, conduits, poles, wires or other apparatus which may in any way be necessary to support, sustain and protect them under, over, along or across said excavation works. The Applicant shall secure approval of the method of support and protection from the owner of the facility. In case any of said pipes, conduits, poles, wires, or apparatus shall be damaged, and for this purpose, pipe coating or other encasement or devices are to be considered as part of a structure, the Applicant shall promptly notify the owner thereof. All damaged facilities shall be repaired by the agency or person owning them and the expense of such repairs shall be charged to the Applicant. It is the intent of this paragraph that the Applicant shall assume all liability for damage to facilities and injury to persons. The only exception will be such instances where damage is exclusively due to the negligence of the owning company. The Town shall not be made a party to any action because of this paragraph. The Applicant shall inform himself as to the existence and location of all underground facilities and protect the same against damages.

The Applicant shall at all times, and at his own expense, preserve and protect from injury any adjoining property by providing proper foundations and lateral support, and by taking such other precautions as may be necessary for that purpose. The Applicant shall, at his own expense, shore up and protect buildings*, trees, walls, fences or other property likely to be damaged during the progress of excavation work and shall be responsible for all damage to public or private property or roadways resulting from his failure to properly protect and carry out said work. The Applicant shall not remove, even temporarily, any trees or shrubs which exist in planting strip areas, without first obtaining the consent of the Director of Public Works or his designee. (See Massachusetts General Laws, Chapter 87, Section 5 – Cutting Trees)

All unattended trenches shall be plated with steel plates or shall be completely enclosed by a chain link fence at least 6 feet in height in accordance with M.G.L c 82A and 520 CMR 14.00.

The applicant is informed that any work associated with buildings may require approval by the building inspector.

Shade Trees

Shade trees shall not be cut down, trimmed or otherwise injured. Where it is necessary to cut and remove pavement, curb, sidewalk and/or other surface improvement, the material shall be cut and removed by means of equipment suitable to the type of material to be removed and in a manner which results in a minimum amount of damage to adjacent improvements.

The following policy will be adhered to in case a tree is destroyed by the Applicant or a

tree is authorized for removal by the Director:

All tree stumps and debris resulting from the work shall be removed from the location.

A replacement shall be made by the Applicant for each tree removed or destroyed with a minimum caliper of 2 inches or greater; the species and place of relocation to be designated by the Tree Warden. It must be planted in place and it must be balled and burlapped.

The Applicant shall deliver to the Director of Public Works, a bonafide order, placed with a recognized established nursery before installing the authorized trees. The Order shall include in it a statement that the size and species required will be in accordance with "USA Standard for Nursery Stock" and that planting will be done in accordance with the applicable provisions of the Massachusetts Department of Public Works Standard Specifications.

For roadside planting, the following type trees will be acceptable, subject to approval by the Director of Public Works as to which specific species is best for the location where the tree is to be planted: Norway Maple, Sugar Maple, Crimson King Maple, European Linden or approved equal.

In certain areas of the Town, ornamental trees, such as Flowering Crab, European Mountain Ash, Japanese Flowering Cherry, Moraine Ash and Washington Hawthorne, are acceptable as replacement trees. These trees are purchased by height and not by caliper and must be balled and burlapped. They must conform to the following minimum heights: 5' to 6', Flowering Crabs and Flowering Cherries; and 6' to 8' Moraine Ash, European Mountain Ash and Washington Hawthorne.

Drainage

Provisions shall be made to provide for proper drainage during construction and the Applicant shall be responsible for all claims for damage or injury that may arise from or in connection with the work conducted under the permit. The permit holder shall exercise every reasonable precaution to prevent or minimize silting of rivers, streams, ponds, or wetland areas. This shall include the use of berms, dikes, dams, sediment basins, screened or crushed stone, gravel, mulches, grasses, waterways and other erosion control methods.

Monuments

Property or street line monuments, survey reference points and permanent survey benchmarks, shall not be removed or disturbed, unless specifically permitted in writing by the Department of Public Works.

Excavations, Backfilling, and Paving

Excavations shall be backfilled in layers not to exceed 12 inches and shall be compacted to not less than 95% maximum dry density at optimum moisture content using pneumatic

tampers, vibratory compactors or other approved means. Puddling will not be allowed. The material compaction shall be determined by the Standard Proctor Method in accordance with Standard Specifications.

If unsuitable for backfill, excavated material shall be replaced with granular backfill gravel as specified in the Massachusetts Department of Public Works Standard Construction Specifications for Streets and Highways. Within the paved roadway areas, 8 inches of gravel borrow sub base conforming to Massachusetts Standard Specification M1.03.0 Type C shall be placed followed by 4 inches of crushed gravel conforming to M2.01.7 and finally the 2 ½" binder course and 1 ½" wearing course. In sidewalk and driveway areas, six (6) inches of crushed gravel base shall be placed and compacted to achieve 95% density. Any asphalt or concrete sidewalk surface shall be restored to a depth equal to existing with three (3) inches of concrete or pavement minimum. In case of longitudinal trenches in a sidewalk area, full width restoration may be required.

In other areas, the excavation shall be restored to the condition that existed before the excavation or as directed by Department of Public Works inspectors. Any existing grassland shall be restored with four (4) inches of sifted loam which shall be fertilized and seeded.

Driveways

One or a combination of driveway locations may be allowed for a residential lot for a maximum width of 24 feet in total. Such driveway location(s) shall be at least 30' from an intersecting road. (see attachment for typical drawing detail) Water box covers shall be installed where the water service shut off is located within paved areas.

Sidewalks

Sidewalks shall meet AAB requirements and restored to a safe passable condition that meets additional specifications in this section. Sidewalk widths shall be 4'6" unless otherwise required to be wider per other permit condition, or regulation. Sidewalk widths of less than 4'-6" require approval from the DPW Director. All sidewalk surface repairs/replacements shall consist of the same materials that currently exist, unless the DPW Director approves such other material. Work on or in sidewalk areas may trigger a requirement for handicap ramp construction on corner lots. Property owners who choose to re-construct the sidewalk in front of their home may be required to construct a handicap ramp on corner lots. Water box covers shall be installed where the water service shut off is located within paved areas.

Compliance Testing

In general, where compliance to the requirements of these Regulations and their intent is in question, the Applicant, at his expense shall provide any and all proof of compliance to the Department of Public Works. Acceptable proof shall be by, but not limited to, approved independent laboratory tests, approved independent field tests, shop drawings and certificates of compliance from manufacturers. Specific tests as required by regulations and specifications shall be performed.

Other Requirements

The permit shall be kept with the foreman at the place where the work is being performed and shall be produced for examination upon request of any member or officer of the Department of Public Works or any police officer of the Town of Needham.

After an excavation is commenced, the work shall proceed in a continuous manner with diligence and expedition and shall be completed and the street restored, as nearly as possible to its original condition, so as not to obstruct the public places or travel thereon more than is reasonably necessary. The surface of the street shall be permanently restored within a period of time not to exceed five (5) days from the date of completion of the project. In any event, the Applicant shall place and maintain temporary pavement immediately upon backfilling which shall be maintained on a daily basis. Department of Public Works inspectors will require temporary "hot-patch" or "cold-patch" dependent upon the location of the opening. Upon completion of the pavement restoration, the Department of Public Works shall be immediately notified as to the location and time of completion. Permanent pavement surface shall be smooth with less than ¼" dip or bump within a 10' length.

Traffic loops at all signalized intersections must be undisturbed or replaced to original condition prior to completing construction.

Restoration

Cuts in pavement 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 provide a flat diamond shaped patch with a two (2) 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 material shall be removed and replaced to an equal depth with a minimum of four (4) inches (two and a half (2 ½) inches of base and 1 ½ inches of top) of bituminous pavement laid and compacted to meet the existing pavement edge exactly. The face of all joints shall be sealed with asphalt emulsion and sanded.

In cases where multiple excavations are made in a street which would result in the edge of patches being closer than 20 feet to one another, the Department of Public Works Inspectors may require one continuous patch. (see attached typical drawing detail)

All permanent pavement markings (crosswalks, traffic center lines, etc.), shall be repainted or replaced by or under the direction of the Department of Public Works of the Town of Needham, at the expense of the Applicant.

The Director of Public Works, 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 Applicant shall reimburse the Town for any or all liability and expense suffered by reason of such work. If the final restoration is not completed in a prompt manner, Department forces will, after notice has been given to the Applicant, make final restoration which may be done after their normal working hours (overtime rate). The Applicant shall reimburse the Town for any liability and expense suffered by reason of such work.

UTILITY CONNECTIONS

All utility connections to existing water mains, sewer mains and drain lines shall conform to the following standards and specifications. Sewer, water and drain connections require separate permits and fees from the Water and Sewer Division.

Water Mains and Service Laterals

All extensions to water mains shall be made using a tapping sleeve and valve unless otherwise approved by the Water and Sewer Superintendent. The water main shall be Class 52 CLDI and shall meet Town of Needham Standard Construction Specifications.

All fittings and valves shall also meet Town of Needham Standard Construction Specifications. Poured concrete thrust blocks shall be installed at all tees, plugs and bends in the pipe. The concrete shall meet MDPW Specifications M4-02 for Cement Concrete Class C. The thrust blocks shall be poured against undisturbed original aground and shall be so placed that pipe joints will be accessible for any possible future repairs. Yokes and tie rods may be used where it is not possible to install thrust blocks or at the discretion of the Water and Sewer Superintendent. Pipe anchors shall be used when and as directed.

The pipe shall be properly bedded with clean gravel fill meeting MDPW Specification Ml.03.0 Type C. The bedding material shall be placed and compacted by hand to the top of the pipe making sure that no cavities in the bedding exist around the pipe. The pipe bedding shall then continue to one (1 ft.) foot above the pipe.

Service laterals shall be made of 1-inch copper using a 1-inch corporation meeting Town of Needham Standard Construction Specifications. The tap shall be made at either the 2 o'clock or 10 o'clock positions on the pipe and the lateral shall be bent into a gooseneck of at least 6 inches. Service laterals exceeding 1 inch in diameter shall be accompanied by a saddle attached to the water main unless otherwise instructed by the Water and Sewer Superintendent. The service lateral shall be bedded within a 1 ft. layer of sand meeting MDPW specifications M1.04.0 Type a. The curb stop shall be located within the street right of way as indicated in the Specifications.

Sewer Mains

All sewer main extensions from existing sewer mains shall be made at a sewer manhole. The manhole structure shall be pre-cast reinforced concrete meeting ASTM C478 specifications. All joints shall be properly sealed with Butyl Rubber or Neoprene Rings and Type II Portland Cement Concrete. The manholes shall have pre-cut holes with rubberized boots for all pipe connections. The manhole shall be set on a minimum 8 inch leveled and compacted base or ¾"-1½" crushed stone. Doghouse style manholes are not permitted. See Town of Needham Standard Construction Specifications for further information.

The sewer main pipe shall be installed from the low end to the high end with the bell end of the pipe at the high end. The pipe shall be SDR 35 PVC and shall meet Town of Needham Standard Specifications. The pipe shall be set in a bed of ¾"-1½" crushed stone and shall be completely surrounded by the stone to a depth of at least 8 inches.

The pipe shall be laid true to line and grade. The minimum pipe diameter used for main extensions shall be 8 inches. Larger diameters may be required as determined by the Director of Public Works. The minimum acceptable slope is 0.004 ft. /ft. Consideration shall be given to surrounding areas during the design process. The sewer main extension shall be designed to accommodate the maximum area that can be reasonably serviced as determined by the Director. Wyes and/or partials shall be installed where, in the opinion of the Director, such installation would service an unsewered potential lot.

Provision shall be made by the contractor to ensure that sewage does not surcharge in existing mains during construction. This may be accomplished by pumping with pumps capable of handling existing flows so that surcharging upstream does not occur or by fashioning a bypass pipe section to allow sewage to flow around the work area. In any event, sewage shall not be allowed to flood the excavation.

Lateral connections to the sewer main shall be made with wye connections set 45 degrees above the horizontal plane and angled in the direction of the sewage flow in the main. Wyes shall be SDR-35 PVC and shall meet Town of Needham Standard Construction Specifications. Connections to existing sewer mains other than PVC shall be made with Fernco-style saddle wyes. Such connections shall not be constructed without prior approval from the Director of Public Works.

SECTION 10 INSPECTIONS

The Town shall make such inspections as are reasonably necessary in the enforcement of these procedures. The Town shall have the authority to promulgate and cause to be enforced such procedures as may be reasonably necessary to ensure that the work conforms to the requirements herein. The issued permit may include necessary scheduled inspection requirements during the construction process. The Applicant shall contact the DPW to schedule timing of inspections during the construction process.

## SECTION 11 ENFORCEMENT AND PENALTIES

Permit Procedures and Regulations. Whoever violates any provision of these procedures may be penalized by a non-criminal complaint in the District Court pursuant to provisions of Massachusetts General Laws, Chapter 40, Section 21D and upon conviction thereof, shall be fined $100 for Street Permit violations or $100 for Trench Excavation violations. Each day such violation continues shall constitute a separate offense.

If the work, or any part thereof, mentioned in the preceding sections shall be unskillfully or improperly done, the Town shall cause the same to be skillfully and properly done and shall keep an account of the expense thereof; and, in such cases, such person or utility shall pay the Town an amount equal to the whole of said expense incurred by said Town with an additional amount of 50% to cover indirect costs. The total cost is referred to herein as "recoverable charges". Thereafter, upon completion of the work and the determination of the costs thereof the Town shall issue no further permits to any person or utility until it shall receive payment of said costs.

Any person or utility who continues to violate any regulation of these procedures shall receive no further permits and is subject to license revocation until such time as the Town is satisfied that the person or utility shall comply with the terms of these Procedures and Regulations. A contractor license may be revoked or deemed non-renewable if the inspector deems their craftsmanship or performance sub standard to Needham DPW standards as determined by the Director of Public Works.

Failure to obtain a valid permit or license prior to the start of construction or activity is subject to a "cease and desist order" and may be grounds for license revocation or rejection.

## SECTION 12 MORATORIUMS

Each year, and at the completion of a road construction upgrade or reconstruction project, the DPW will update a list of roads considered to be under a moratorium. The minimum period of the moratorium is for 5-years. Such list will be available at the DPW's Administration office.

Work that results in breaking through pavement, landscaping or curbing within the Right of Way of a road under a moratorium is prohibited except under special circumstances approved by the Town Engineer. In such cases where work is unavoidable the following minimum standards must be met.

1. Construction requirements specified in Section 10;
2. Curb to curb mill and overlay coverage a minimum distance of 10 feet beyond the edges of disturbance;
3. The contractor shall guarantee through a surety determined by the Department of Public Works for a period one year beyond the end of the moratorium date for that section of road.

SECTION 13 REVISIONS & SEVERABILITY

These procedures may be revised from time to time by vote of the Board of Selectmen. The invalidity of any section of these procedures shall not invalidate any other section or provision thereof, nor shall it invalidate any permit which has been previously issued.

SECTION 14 EFFECTIVE DATE

The effective date of these procedures and Regulations shall apply to all work performed on or after April 1, 2012.