

Massachusetts Bay Transportation Authority Safety Policy/Procedure

Subject Trench Excavation	Original Issue Date February 13, 2009	Safety Policy/Procedure #5.09
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I. PURPOSE:

The Authority is committed to reducing injuries and loses resulting from accidents and incidents associated with trench excavation. To assist in this endeavor, "Trench Permits" will be issued by the Safety Department. 520 CMR 14.00 as promulgated by the Department of Public Safety (DPS) in conjunction with the Division of Occupational Safety (DOS) pursuant to authority granted by M.G.L. c. 82A § 1. The purpose of 520 CMR 14.00: Excavation and Trench Safety is to establish reasonable standards to protect the safety of the citizens of the Commonwealth from the hazards inherent in trenches, and to provide for penalties for individuals who violate any provision of this regulation.

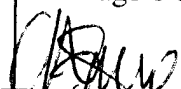
(1) Applicability Provision:

- (a) 520 CMR 14.00 shall apply to any excavator.
- (b) This regulation shall not be construed or enforced in a manner that directly, substantially, or specifically regulates the occupation, safety or health of any employee engaged in employment covered by the Federal Occupational Safety and Health Act (OSHA).
- (c) This regulation shall be read in conjunction with, and shall not supersede, be construed, or be enforced in a manner that contradicts 780 CMR, the Massachusetts State Building Code.

Furthermore, this policy outlines all of the relevant permitting requirements necessary to obtain a "Trench Permit" at the Authority.

II. SCOPE:

This policy/procedure applies to all work on MBTA property by Authority employees and contractors that involve the use of the excavation of a trench.

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III. DEFINITIONS AND ABBREVIATIONS:

Competent Person: A person or persons who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to people, and who has authorization to take prompt corrective measures to eliminate them. A competent person must be able to demonstrate that he or she has been trained in and is knowledgeable about: soil analysis, the use of protections for the General Public and the requirements of this regulation.

Emergency: An unforeseen condition in which the safety of the public is in imminent danger because of a threat to life or health or where immediate correction is required to maintain or restore essential public utility service.

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

General Public: All natural persons not engaged in the creation of a trench.

Permitting Authority: A city, town, or public agency required to administer the provisions of 520 C.M.R. 14.03: Permitting Requirements.

Permit Holder: The excavator who is responsible for acquiring a permit from the Permitting Authority.

Public Agency: A department, agency, board, commission, authority, or other instrumentality of the Commonwealth, or political subdivision of the Commonwealth, or two or more subdivisions thereof.

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Serious Injury - A personal injury that results in death, dismemberment, significant disfigurement, permanent loss of the use of a body organ, member, function, or system, a compound fracture, or other significant injury that requires immediate admission and overnight hospitalization, and observation by a licensed physician.

Trench: An excavation which is narrow in relation to its length, made below the surface ground 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: Required for work that involves the digging of a trench.

Unattended Trench: A trench that neither the permit holder, excavator, nor any of the people who work in or at the trench are present.

IV. RESPONSIBILITIES

A Authority Resident Engineers, Superintendants, Supervisors and Managers from the following departments; Design & Construction, SMI, Operations Support, Real Estate (TRA) and Commuter Rail (MBCR).

- Responsible for implementation/adherence to this policy.
- Will issue Trench Permits application.
- Designate competent personnel to inspect trenches

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- Ensure all personnel are properly trained.
- Ensure the task/work activities are appropriate and meet the guidelines for a Trench Permit.
- Ensure the physical environment is free from debris and other hazards.

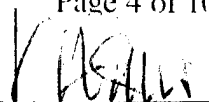
B. Safety Department

- Supplies the Trench Permit forms designated to Authority personnel.
- Provides training on any aspect of this Policy.
- Conducts audits of the Trench permitting procedures.
- Responsible for issuing, tracking and filing of Trench Permits.

V. PROCEDURES:

A. Issuance of Trench Permits

1. Once a supervisor/foreperson/Resident Engineer is alerted that a Trench Permit will be required in the course of a project or work activity, he/she must seek a permit from the next level of management. The application will be sent to the Safety Department and a permit number will be issued. The Safety Department will work with the supervisor to complete the permit. After the work location is cleared of any debris and/or hazards, and the trench is dug, the permit will then be posted in the work area and at the project office if applicable before work commences.
2. The Competent person will fill out the permit application and send it to the Deputy Director / or designee of the Safety Department at 21 Arlington Avenue, Charlestown, MA Fax number 617 222-5127, or TRENCHPOLICY@mbta.com. The Safety Department will then send (e-mail) copies of the completed permit form to the DPS, field staff, appropriate manager and post at the project office.

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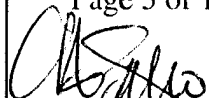
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manager and post at the project office.

3. Contents of Permit Applications. All permit applications must contain the following information:
 - (a) Dig safe number (see sample permit);
 - (b) Name and contact information of permit holder;
 - (c) Name and contact information of the excavator;
 - (d) Name of the competent person(s)
 - (e) Name of person(s) performing the excavation of the trench;
 - (f) Massachusetts Hoisting License number, license grade and expiration date of the person(s) performing the excavation of the trench;
 - (g) Permit expiration date (if applicable);
 - (h) Specific location of the trench;
 - (i) Name and contact information of insurer;
 - (j) All permit applications shall also include the following statements pursuant to M.G.L.c.82A, §3 (3) and (5) (i), (ii):

4. “Persons engaging in any trenching operation shall familiarize themselves with the federal safety standards promulgated by the Occupational Safety and Health Administration on excavations: 29 CFR 1926.650 *et. seq.*, entitled Subpart P - Excavations.”². “By applying for, accepting and signing this permit, the applicant attests to the following: (i) that he/she has read and understood the regulations promulgated by the Department of Public Safety with regard to trench safety; (ii) that he/she has read and understood the federal safety standards promulgated by the Occupational Safety and Health Administration on excavations: 29 CFR 1926.650 *et. seq.*, entitled Subpart P “Excavations”.

5. Posting - All Permits issued pursuant to this regulation shall be posted in plain view on the site of the trench. All permits shall be made available to

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Occupational Safety, any inspector of the Department of Public Safety, or any other lawfully authorized authority.

B. Establishment of Trench Excavation Inspection

The Inspector (competent person) shall:

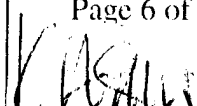
1. Ensure the physical environment is appropriate for a trench excavation.
2. Post a copy of the permit prominently at the work site.
3. Be knowledgeable about emergency response procedures, and be accessible to a telephone or radio in the case of emergency.
4. Ensure that the proper barricade is installed around the trench work site.
5. Sign the Trench Permit and forward it to the supervisor/manager for filing.

C. Competent Person Standard

The “competent person” is a performance based standard and the individual must have the specific knowledge discussed above; however, there is no required number of hours of training or certificates to prove such knowledge. Therefore, a permitting authority is not able to make an assessment about the competent person listed on the permit application, and will have to trust that the competent person listed on the application by the applicant meets the definition.

D. Protection of Unattended Trench

- Post an attendant (such as a police detail, flagperson, etc)
- Surround excavation with minimum 6' high fence
- Cover with minimum ¾" thick steel plates
- Backfill the trench before leaving.

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**CONDITIONS AND REQUIREMENTS
PURSUANT TO G.L.C.82A AND 520 CMR 7.00 ET SEQ. (AS AMENDED)**

By signing the application, the applicant understands, and agrees to comply with the following:

- i. No trench may be excavated unless the requirements of Sections 40 through 40D of Chapter 82, and any accompanying regulations, have been met, and this permit is invalid unless and until said requirements have been complied with by the excavator applying for the permit, including, but not limited to, the establishment of a valid excavation number with the underground plant damage prevention system as said system is defined in Section 76D of Chapter 164 (DIG SAFE);
- ii. Trenches may pose a significant health and safety hazard. Pursuant to Section 1 of Chapter 82 of the General Laws, an excavator shall not leave any open trench unattended without first making every reasonable effort to eliminate any recognized safety hazard that may exist as a result of leaving said open trench unattended. Excavators should consult regulations promulgated by the Department of Public Safety in order to familiarize themselves with the recognized safety hazards associated with excavations and open trenches, and the procedures required or recommended by said department in order to make every reasonable effort to eliminate said safety hazards which may include covering, barricading or otherwise protecting open trenches from accidental entry.
- iii. Persons engaging in any trenching operation shall familiarize themselves with the federal safety standards promulgated by the Occupational Safety and Health Administration on excavations: 29 CFR 1926.650 et. seq., entitled Subpart P "Excavations."
- iv. Excavators engaging in any trenching operation who use hoisting or other mechanical equipment subject to Chapter 146 shall only employ individuals licensed to operate said equipment by the Department of Public Safety pursuant to said chapter, and this permit must be presented to said licensed operator before any excavation is commenced;


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- v. By applying for, accepting and signing this permit, the applicant hereby attests to the following:
1. that they have read and understands the regulations promulgated by the Department of Public Safety with regard to construction related excavations and trench safety;
 2. that he/she has read and understands the federal safety standards promulgated by the Occupational Safety and Health Administration on excavations: 29 CFR 1926.650 et.seq, entitled Subpart P "Excavations" as well as any other excavation requirements established by this municipality; and
 3. that he/she is aware of and has, with regard to the proposed trench excavation on private property excavation of a city or town public way that forms the basis of the permit application, complied with the requirements of Sections 40-40D of Chapter 82A.
- vi. This permit shall be posted in plain view on the site of the trench.

For additional information please visit the Department of Public Safety's website at www.mass.gov/dps

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APPLICATION FOR A PERMIT FOR THE EXCAVATION OF TRENCHES

Location of Excavation:

Name of Location: _____		
Street Address: _____		
City: _____	State: <u>MA</u>	Zip Code: _____


Purpose of Excavation: _____	Size of Trench: _____
Type of Barricading: _____	Type of Shoring: _____
Excavator: _____	Excavator Contact: _____
	Excavator Contact Phone: _____
Person(s) Performing Excavation: _____	
MA Hoisting License No.: _____	License Grade: _____ Exp. Date: _____
Name of the Competent Person: _____	
Anticipated Date to Begin the Trench Operation: _____	
Anticipated Date to Conclude the Trench Operation: _____	

Departmental Approval Review:

Must be signed by a Resident Engineer, Superintendent, Supervisor or Manager from the following Departments:

Operations: _____	
Design and Construction: _____	
SMI: _____	
Operations Support: _____	
Real Estate (TRA): _____	
Commuter Rail (MBCR): _____	
Applicant: _____	MBTA Contract No.: _____
	(if applicable)

Signature of Permitting Authority Representative: _____	
Date of Application Approval: _____	Expiration Date: _____

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PERMIT FOR THE EXCAVATION OF TRENCHES

Public Agency: Massachusetts Bay Transit Authority (MBTA)
 Name of Permitting Authority: Safety Department – MBTA
 Location of Excavation as Indicated on the Application Filed with the Permitting Authority: _____

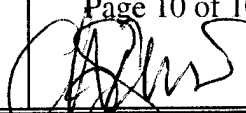
Name of Location: _____		
Street Address: _____		
City: _____	State: <u>MA</u>	Zip Code: _____

Name of the Excavator: _____
 Name of the Competent Person: _____
 Anticipated Date to Begin the Trench Operation: _____
 Anticipated Date to Conclude the Trench Operation: _____
 Applicant: _____ MBTA Contract No.: _____
 Signature of Approval: _____ Date of Approval: _____
 Expiration Date: _____

Pursuant to M.G.L.c.82A, §3 (3) and (5) (i), (ii):

“Persons engaging in any trenching operation shall familiarize themselves with the federal safety standards promulgated by the Occupational Safety and Health Administration on excavations: 29 CFR 1926.650 et. seq., entitled Subpart P - Excavations.”² “By applying for, accepting and signing this permit, the applicant attests to the following: (i) that he has read and understood the regulations promulgated by the Department of Public Safety with regard to trench safety; (ii) that he has read and understood the federal safety standards promulgated by the Occupational Safety and Health Administration on excavations: 29 CFR 1926.650 et.seq., entitled Subpart P “Excavations”.

Posting - All Permits issued pursuant to this regulation shall be posted in plain view on the site of the trench. All permits shall be made available to the permitting authority, any investigator from the Division of Occupational Safety, any inspector of the Department of Public Safety, or any other lawfully authorized authority.

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