

New York State Canal Corporation

# General Design and Construction Requirements for Occupancies



Office of Real Property Management

TAP-923A (07/2011)

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## I. INTRODUCTION

The General Design and Construction Requirements for Occupancies (TAP-923A) (General Requirements) provides the general construction requirements for any occupancy of Canal Corporation Property (Corporation Property).

These General Requirements are to be used in conjunction with the guidelines governing the issuance of Permits as set forth in the Occupancy and Work Permit Accommodation Guidelines (TAP-922).

Copies of the most current General Requirements may be obtained from the Division Canal Permit Engineers or from the Real Property section of the Corporation's website ([www.canal.ny.gov](http://www.canal.ny.gov)). Information pertaining to the contents of these General Requirements may be obtained by visiting, writing, faxing or telephoning the Corporation locations listed on the inside front cover of TAP-922.

The Corporation reserves the right to make changes in, or additions to these General Requirements. Such changes and additions shall become part of any agreement, existing or new Permit and are to be complied with immediately.

In addition to these General Requirements, there are three (3) additional documents that provide detailed design and construction requirements specific to the type of occupancy:

- Design and Construction Requirements for Residential/Non-Commercial Docks, Decks, Platforms and Boat Launches/Ramps (TAP-923B);
- Design and Construction Requirements for Non-Commercial Access to Canal Waters & the Non Commercial Use of Corporation Property (TAP-923C); and,
- Design and Construction Requirements for Reduced Speed Buoys (TAP-923D).

In the event that the above documents conflict with the General Requirements, they shall apply.

The Permittee shall conduct the operations covered by a Permit in such a manner so that they do not interfere with the Canal System operations, maintenance and/or safety of the Corporation's personnel or the use of the Canal System by the general public.

These General Requirements apply to the Erie, Champlain, Oswego and Cayuga/Seneca Canals (i.e., the areas under Corporation jurisdiction).

## **II. GENERAL CONSTRUCTION REQUIREMENTS**

All work to be performed on Corporation Property shall require a Work Permit. No construction or modification except that which is specifically authorized by the Work Permit may be made to Corporation Property. As outlined in TAP-922 Section III. B., the work authorized by a Work Permit shall be performed in a professional manner to the satisfaction of the Corporation. All work by or for a Permittee shall be done at no expense to the Corporation. When the Work Permit expires, any additional construction, modification or work of any kind, and/or reentry to Corporation Property shall require a new Work Permit.

In general, digging near Canal embankments is actively discouraged. However, should construction on Corporation Property require digging or any type of excavation work, New York State law requires the Permittee to notify the Dig Safely New York program at 1-800-962-7962 so that buried facilities in the area of the proposed construction can be identified and marked. This notification must be at least two (2) full work days (not including the day of the call, weekends or holidays) but not more than ten (10) work days prior to the start of work. For more information on the Dig Safely New York program, go to [www.digsafelynewyork.com](http://www.digsafelynewyork.com).

The Permittee shall follow all Corporation Rules and Regulations and provide suitable safeguards so as to reduce any dangerous conditions to an absolute minimum. The Permittee and any employees shall follow applicable Occupational Safety and Health Administration (OSHA) safety requirements.

For all construction to be performed on Corporation Property, Permittees shall adhere to the following general construction requirements unless directed otherwise by the Division Canal Engineer or designee.

Because of the historic nature of the Canal System, approval for certain activities may be required from the New York State Historic Preservation Office.

### **A. STATEMENT OF REQUIREMENT**

Permit Applications shall be accompanied by detailed plans and maps indicating where and in what manner the work will be done. As outlined in TAP-922, if any structure is to be built and before the start of any work on Corporation Property, the Permittee may be required to submit to the Division Canal Engineer or designee, and receive approval of, a description of the proposed operation, formal plans which are accurate-to-scale, and drawings showing construction details. If required by the Corporation, plans must be signed and stamped by an individual with a New York State Professional Engineer's License. Actual field conditions encountered may require changes in the approved work schedule or construction details. Such changes shall be designed by a licensed Engineer and subject to approval of the Division Canal Engineer or designee. Residential dock application requests with simple timber construction will generally require only informal, but detailed sketches or plans, including footing design, for review.

In certain instances (e.g., commercial, municipal, and some residential occupancies), as-built plans, hard copy and electronic, are also required upon completion of the work.

As provided in TAP- 922 Section V.C. and D., the Permittee, before the start of work on Corporation Property, must provide proof of insurance in the types and amounts described in TAP-526 and may be required to remit a surety deposit and/or post a performance/restoration bond.

## **B. ENVIRONMENTAL REQUIREMENTS**

In addition to the environmental requirements described in TAP-922 Section IV. L., the following requirements shall be followed unless otherwise directed by the Canal Division Engineer or designee:

The Permittee shall submit to the Division Permit Engineer an Erosion and Sediment Control Plan for approval prior to the commencement of work. If land disturbance is one (1) acre or greater in size, a Stormwater Pollution Prevention Plan (SWPPP) will need to be developed in accordance with New York State Department of Environmental Conservation's (NYSDEC) General Permit GP-0-10-001 (or current permit in force) and a Notice of Intent (NOI) filed.

The Permittee shall obtain and forward to the Division Permit Engineer copies of any and all required permits from NYSDEC and the United States Army Corps of Engineers (ACOE) prior to construction. In the event NYSDEC and/or ACOE permits are not required, the Permittee shall submit documentation to the Division Permit Engineer justifying why permits are not required.

The Permittee is required to complete and submit a State Environmental Quality Review Act (SEQRA) Short Environmental Assessment Form (SEAF) or Long Environmental Assessment Form (FEAF). The project appropriate EAF will be reviewed by the Division Permit Engineer and a SEQRA determination of next steps will be made based upon known and/or potential environmental impacts associated with the project.

All surplus earth and all debris shall be removed from Corporation Property. Spoiling shall comply with all local, Corporation, state and federal regulations that apply to the area chosen for the spoil material.

Permit Applications for construction of liquid or gas pipelines shall include an emergency response plan. The emergency response plan must, at a minimum, identify appropriate protective devices, and shall be subject to approval by the Division Canal Engineer or designee.

**C. NOTICE OF JOB SCHEDULE AND FINAL INSPECTION**

The Division Canal Engineer or designee shall be notified at least twenty-four (24) hours prior to the start of work and/or resumption of work after a temporary delay or shut down of work. Permittee must also notify other occupants with facilities in the Permit Area prior to starting any work. Permission must be obtained before doing work affecting another occupant's facilities.

Upon completion of the work, the Division Canal Engineer or designee shall be given prompt written notice so that the site may be inspected to determine if its condition is satisfactory to the Corporation.

**D. TRAFFIC CONTROL**

As provided in TAP-922 Section IV. D., whenever a Permittee's work or maintenance activity will affect the movement or safety of Canalway Trail traffic or vessel traffic on the Canal System, the Permittee shall implement a temporary traffic control plan approved by the Corporation to ensure the safe movement of traffic in and around the work site and the safety of the Permittee's workforce. Where Canal vessel traffic will be affected, United States Coast Guard approval may be required.

**E. ACCESS**

Generally, no access to Corporation Property or water will be allowed by way of Corporation Property unless specifically authorized in writing by the Division Canal Engineer or designee.

**F. PRIOR INSPECTION**

Prior to any construction, the Permittee must inspect the property referred to in the Permit Application and have knowledge of its condition. Note: Inspections not covered by the original Work Permit will require a separate Work Permit.

**G. PERFORMANCE RESPONSIBILITY**

Approval of work schedules, construction drawings and plans shall not relieve the Permittee of the responsibility to perform the work without damage to existing Corporation facilities.

## **H. PERMITTEE RESPONSIBILITY**

The Permittee shall assume all responsibility for the sufficiency and safety of the work being performed on Corporation property, and shall closely supervise the work so that the possibility of construction damage to existing facilities is minimized.

## **I. CONSTRUCTION HAZARDS**

Excavations shall be properly shored to prevent settlement. All excavations which have the potential to impact the integrity of a Canal embankment, structure or other facility shall be supported with a continuous sheeting system which does not allow adjacent earth movement. All sheeting shall be installed in accordance with NYSDOT Standard Specifications Section 552. The systems shall be designed to resist earth pressure, hydrostatic pressure, and surcharges from, construction equipment and/or adjacent structures. The system shall also be designed to have an adequate factor of safety against heave or piping. The system shall be internally braced, if necessary and designed by a New York State licensed Professional Engineer. The design of the system, including details of surface and ground water controls, shall be submitted to the Division Permit Engineer for approval prior to final permit approval and construction of the excavation.

Trench boxes, or other methods of excavation support which allow adjacent earth movements, will not be permitted unless approved by the Division Permit Engineer in consultation with the Division Canal Engineer and the Canal Design Unit. Specifications shall be submitted for approval. During non-working hours, the Permittee shall delineate the excavation/trench by placing temporary fencing around the excavation/trench.

Trenches shall be backfilled within two (2) days of the time of opening and in accordance with standards set forth by the Occupational Safety and Health Administration (OSHA), unless written approval to the contrary is received from the Division Canal Engineer or designee. Temporary fencing, approved by the Division Canal Engineer or designee, shall be required to deny access to any site unless the site is considered non-hazardous by the Division Canal Engineer or designee.

The determination of whether an excavation has the potential to impact the support of the embankment, structure or other facility shall be made by the Division Canal Engineer or designee.

A detailed backfill plan is required for any excavations involving the Canal embankment.

In addition to excavation/obstruction regulations established by the Corporation, the Permittee shall comply with all other excavation/obstruction/construction rules and regulations established by the OSHA or similar governing agencies.

**J. DAMAGES**

If any construction damage to Corporation structures, facilities, appurtenances and/or real property occurs, restoration to original condition or better shall be undertaken and completed at the Permittee's sole expense as directed by, and to the satisfaction of, the Division Canal Engineer or designee. Permittee liability and indemnification shall be governed pursuant to TAP-922 Section V.

**K. INSPECTION BY THE CORPORATION**

As provided in TAP-922 Section IV. F., the Corporation reserves the right to inspect all work performed on Corporation Property. If, in the Corporation's judgment, the inspection results are unsatisfactory, the Permittee, its contractors and/or subcontractors shall immediately stop work upon orders from the Division Canal Engineer or designee. The Permittee may be required to employ on behalf of the Corporation a consulting firm for construction inspection.

**L. RESTORATION**

As detailed in TAP-922 Section IV. C., Permittee shall leave the work site in a clean condition, properly graded to conform to the surrounding terrain, and seeded and mulched, in accordance with direction from the Division Canal Engineer or designee.

In the event that site restoration requirements are not complied with, then all costs incurred by the Corporation for site restoration to its original condition or better, as accepted by the Division Canal Engineer or designee, will be charged to the Permittee and may be cause for immediate revocation of the Permit.

**M. BLASTING**

Blasting is not permitted unless it is approved in writing in advance by the New York State Thruway Authority (Authority) Chief Engineer or designee.

All blasting operations on Corporation Property shall be performed in accordance with the NYSDOT Standard Specifications and NYSDOT Geotechnical Engineering Manual GEM-22.

In accordance with Section 107.05 of NYSDOT Standard Specifications and NYSDOT GEM-22, and with the additional time of at least four (4) weeks prior to the start of any rock excavations, the Permittee's contractor shall submit to the Corporation a written plan of the proposed blasting operations on Corporation Property. This plan shall include at least all the information required by NYSDOT GEM-22, Procedure for blasting, under A. Submittal of Written Blast Plan, parts 1.



Project Designations, 2. Safety and Health, and 3. Methods and Procedures. The blast plan shall also include precautionary measures to protect Canal System traffic from falling rock during these operations. "Precautionary measures" shall include a clean up plan where the equipment and procedures are identified for removing fallen rock during the operation. When approved, the procedures set forth in the plan must be adhered to. Changes to the plan must be approved by the Corporation prior to implementation.

Further, at least two (2) weeks prior to the start of any rock excavation, the Permittee's Contractor shall, through the Division Permit Engineer, notify the Authority Chief Engineer of the intent to start work and the Authority Chief Engineer or designee shall schedule a pre-blasting meeting. A pre-blast meeting relative to the method, manner and procedure of blasting operations shall be held with the Engineer-in-Charge, Contractor, Blaster, Authority Engineering Geologist and appropriate Corporation and Troop T personnel. Any other agencies, emergency personnel or utilities with facilities or operations that may be affected by the blasting operation should attend this meeting prior to the commencement of drilling and blasting.

Additionally, Permittee's Contractor must notify all gas distributors with facilities located in the work area at least 72 hours prior to conducting any blasting.

### **III. DESIGN REQUIREMENTS FOR INSTALLATIONS**

#### **A. MINIMUM REQUIREMENTS**

Installations over, under, along and on Corporation Property shall conform to the requirements of the current NYSDOT Standard Specifications for Construction and Materials, the current New York State Uniform Fire Prevention and Building Codes (19 NYCRR) and their referenced standards and the Americans with Disabilities Act. In addition, installations over, under, along and on Corporation Property shall meet the following requirements, except where amended by the Corporation to meet more stringent requirements:

1. Electric Power and Communication Facilities shall conform with the currently applicable National Electrical Safety Code (NESC).
2. Water Lines shall conform with the currently applicable specifications of the American Water Works Association.
3. Pressure Pipelines shall conform with the currently applicable sections of the American National Standards Institute (ANSI) Standard Code for Pressure Piping and applicable industry codes, including:
  - a. Power Piping, ANSI B31.1.0.
  - b. Petroleum Refinery Piping, ANSI B31.3.
  - c. Liquid Petroleum Transportation Piping Systems, ANSI, B31.4.
  - d. Gas Transmission and Distribution Piping Systems, ANSI B31.8.
4. Liquid Petroleum Pipelines shall conform with the currently applicable recommended practice of the American Petroleum Institute (API) for pipeline crossings under railroads and highways.
5. Gas Pipelines shall conform with the rules set forth in Public Service Commission (PSC) codes, Part 255.
6. Fiber Optic Cable shall conform with the standards established by the Authority for traverse and longitudinal occupancies of Fiber Optic facilities.
7. Other Installations shall conform with rules and regulations set forth by applicable governing agencies, as determined by the Corporation.

8. All Installations shall conform with all applicable regulatory codes, including, but not limited to, those set forth by the Public Service Commission (PSC), the New York State Department of Environmental Conservation (NYSDEC), the Occupational Safety and Health Administration (OSHA) or similar governing agencies.
9. Installations/crossings on bridges and miscellaneous structures shall conform to the applicable requirements listed in 1 thru 8 of this Section III. A. and any other requirements established by the Corporation.

## **B. MATERIALS**

All installations on, over or under Corporation Property shall be of durable materials designed for long service life expectancy, so as to require as little routine servicing and maintenance as possible.

## **C. EXPANSION OF FACILITIES**

For new installations or adjustments to existing facilities, provision shall be made for the known or planned expansion of them. The expansion plans shall be developed so as to minimize hazards and interference with Canalway Trail traffic and vessel traffic on the Canal System when additional overhead or underground lines are installed at some future date.

#### **IV. LAND SURVEYS**

A Work Permit is required prior to any work being performed on Corporation Property, including preliminary planning work such as site inspections, surveys, etc. Requirements for Work Permits are set forth in TAP-922.

Surveys shall be performed by individuals with a New York State Professional Surveyor's License.

Whenever a Permittee's work or maintenance activity will affect the movement or safety of Canalway Trail traffic or vessel traffic on the Canal System, the Permittee shall implement a temporary traffic control plan approved by the Corporation to ensure the safe movement of traffic in and around the work site and the safety of the Permittee's workforce.