

EMPIRE PIPELINE
A National Fuel Gas Company



PIPELINE
ENCROACHMENT
MANUAL

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INTRODUCTION

Empire Pipeline (“EMPIRE”) is a subsidiary of National Fuel Gas Company. EMPIRE is an existing 24-inch diameter natural gas transmission pipeline that originates at the United States/Canada border at the Chippewa Channel of the Niagara River, and extends easterly 157 miles from Buffalo, N.Y., to near Syracuse, N.Y. EMPIRE also operates the Empire Connector pipeline, a 24-inch diameter natural gas transmission pipeline that extends from Victor, N.Y. southerly to the Pennsylvania State Line.

This handbook provides basic information for landowners, contractors, and developers with development plans adjacent to or encroaching on EMPIRE rights-of-way. It is intended to minimize the possibility of damage to EMPIRE facilities, which will help ensure public safety and a reliable pipeline system.

These guidelines will aid in your design of any proposed work that affects EMPIRE rights-of-way. Please read the guidelines carefully. Your proposal will be processed more efficiently if all necessary information is provided. All development plans that affect EMPIRE rights-of-way must be approved in writing by EMPIRE.

These guidelines may not include your particular situation. If you should have any questions, please call the area field District Manager, Randy Goodman (585) 321-1560 or the 24 Hour Emergency number 1-(800) 833-1843.



A right-of-way agreement is an agreement by which a property owner grants permission to another party to use a portion of his or her land for a specific purpose. EMPIRE'S original rights-of-way, as well as those acquired today, are granted in return for a one-time consideration, which is paid at the time the agreement is acquired. The right-of-way gives EMPIRE the right to construct, operate, and maintain its pipeline and related facilities which are necessary for the transmission, storage, and distribution of natural gas. EMPIRE also has the free right of ingress and egress to its rights-of-way.

The right-of-way agreement is a right in the land, and the agreement is recorded in the appropriate public records office. It is a legal document. If the land is sold, the rights and responsibilities under the terms of the agreement pass to the new owner.

Our review of any proposed work will focus on the right-of-way area and the lands immediately adjacent to the right-of-way.



An encroachment agreement is required whenever a permanent installation (e.g., utility lines, above and below ground structures, driveways, trees, berm, shrubs, etc.) or intrusive temporary activity (e.g. construction, logging, mining, blasting, excavating) is approved to encroach into the right-of-way area.

The encroachment agreement must be executed by the landowner or party seeking to encroach and EMPIRE prior to the proposed activity or installation. All encroachment agreements covering permanent installations will be recorded in the appropriate public records office. The encroachment agreements covering temporary encroachments will be recorded at the discretion of EMPIRE. All encroachment agreements will be tailored to the specific permanent or temporary encroachment.



It is our desire to keep a clear right-of-way that can be used by our maintenance personnel and one that is clearly visible to our aerial patrol pilot. We must retain the right of free and ready access to the pipeline, cathodic protection, and other facilities along and within rights-of-way across your property in order to properly maintain and operate our facilities in accordance with the New York Public Service Commission.

Under our right-of-way agreement, the landowner may use his land as he sees fit provided it does not interfere with the rights granted to Empire to maintain and operate our pipeline. For safety purposes, we ask all landowners not to carry out any work on the right-of-way without notifying us and giving us an opportunity to be present. Certain work on the premises interferes with the safety of our pipeline, and we regret that we cannot permit such work. We have summarized these situations below, and we respectfully request the landowner to cooperate with us in the interest of safety for all.

1. No trees shall be planted within the confines of the right-of-way. We consider trees as those plants that grow to an excess of five (5) feet in height at maturity. This would include such species as fir, pine, arborvitae, hemlock, maple, rhododendron, birch, fruit trees, willow, etc. Such trees inhibit access to the pipeline and their roots can damage the pipeline. Shrubs or bushes less than five (5) feet in height may be located on EMPIRE 's right-of-way provided they are not planted within ten (10) feet of the pipeline, or between the pipelines in a multiple line situation. In either of these cases, EMPIRE will be glad to locate its pipeline for you. Shrubs include such species as English and dwarf yews, holly, heather, dwarf rhododendron, azalea, barberry, etc. No permanent plantings of any type within ten (10) feet of the pipeline are permitted. Please note under the terms of the right-of-way agreement, EMPIRE still reserves the right to remove any trees, shrubs or other obstructions, without compensation, that interfere with the operation and maintenance of its facilities.
2. No earth shall be removed from the surface of the right-of-way, for such removal can expose the pipeline to damage. Small amounts of fill may be added with EMPIRE'S approval, provided it is clean fill, free of rocks, stumps and debris. No water impoundment is allowed within EMPIRE'S right-of-way.
3. No structures shall be located on the right-of-way. This includes houses, utility sheds, garages, swimming pools, decks, house trailers, wells etc. It is not possible to maintain the pipeline or reach it promptly in times of service interruption with such structures present. Fences, though permanent structures, can be located across the right-of-way, with permission if provisions are made for EMPIRE crews and equipment to gain access through them by proper placement of suitable gates.

4. Underground utilities crossing EMPIRE'S pipeline shall be installed below the pipeline, where practical, with a minimum of 12 inches clearance so as not to interfere with the pipeline. Utilities include sewers, drain lines, water pipes, gas pipes, underground electric or telephone cables, etc. These facilities are not to be placed parallel to our pipeline within EMPIRE'S right-of-way. Septic systems shall not be built on EMPIRE'S right-of-way. However, a solid non-leaching septic line may be placed across the right-of-way provided it adheres to the 12-inch clearance previously stated. Sandbag padding is to be installed between EMPIRE 's pipeline(s) and foreign crossing.
5. No heavy equipment is to be moved across the right-of-way prior to notifying the District Manager.

Construction plans that affect EMPIRE's rights-of-way, as outlined in paragraphs 4 and 5 above, should be submitted for review and approval before any construction starts. This will save both parties from being involved in any possible misunderstanding and will save you time and money. Please be assured EMPIRE stands ready to cooperate with you in any manner possible.

The most helpful contact you have in EMPIRE is the Foreman who is responsible for the Company's facilities on your property. Call Pat McNerney at (716) 432-3842 or Shane Becker at (716) 289-2832 if you have a problem or any questions.

EMPIRE understands its responsibilities and is attempting to exercise its right-of-way rights with a minimum of inconvenience to you. Your safety and the safety of the public are our first consideration, so we are asking for your cooperation.



The following list of construction requirements must be met when working near EMPIRE facilities. Please direct questions to the Henrietta Field Office at (585) 321-1560, P. O. Box 409, Rush, New York 14583.

1. EMPIRE'S standard right-of-way width is 50 feet, unless otherwise stipulated.
2. EMPIRE must be notified in advance through Dig Safely New York at least 2 working days (see page 13 for the phone number) prior to any construction, excavation, demolition, blasting, pile driving, or vibratory equipment operation near EMPIRE facilities. EMPIRE will have personnel stand-by while these activities take place near our facilities.
3. Maintain a minimum distance of 25 feet between EMPIRE pipelines, cathodic protection, other facilities, and any permanent structure such as a building or house.
4. No "temporary" storage sheds will be allowed within 25 feet of EMPIRE pipelines.
5. No excavations, change of grade, or water impoundment within the rights-of-way are to be made without the express written consent of EMPIRE.
6. No trees or bushes that exceed 5 feet in height will be allowed within the 50-foot pipeline right-of-way. Smaller bushes that do not exceed 5 feet in height will be allowed within 10 feet of the pipeline. No permanent plantings of any type is permitted within 10 feet of the pipeline.
7. **The right-of-way may be crossed, under certain conditions, by roads, railroads, streets, and utility lines. However, these facilities are not to be placed parallel to, along or within EMPIRE'S rights-of-way. To accommodate such facilities across the pipeline or to accommodate any allowable change of grade or excavation, EMPIRE, in many instances, will be required by federal regulations and company requirements to alter its pipeline facilities. EMPIRE will require that the party seeking to encroach assume the financial obligation of any such required alteration or adjustment.**
8. Maintain a minimum of 60 inches of cover over any EMPIRE pipeline at the crest of any road, 42 inches at a driveway, and 36 inches in a drainage ditch.
9. No heavy equipment is to be moved across the right-of-way prior to notifying the District Manager and obtaining his approval.

10. For property development, three copies/sets of surveyor's plats of the subdivision or project, along with profiles based on actual pipeline elevation of any streets that will cross any EMPIRE pipelines must be furnished. From this and EMPIRE'S records, EMPIRE will determine if any conflict exists between the existing pipeline and the proposed project.
11. Paving may be permitted within EMPIRE rights-of-way. However, it must be kept to a minimum. Each paving proposal will be evaluated on its own merits. The landowner and/or developer will be required to pay for the installation of additional test leads and ground to soil test holes along the paved area to allow EMPIRE to monitor the integrity of its cathodic protection. Repairs to paved area will be at landowner and/or developer's expense.
12. In some cases, EMPIRE may require a grass or gravel island be left over the pipeline to allow a path for gas to vent in case of leakage.
13. Underground utilities crossing any EMPIRE pipeline must be installed below the pipeline where practical with a minimum of 12 inches of vertical clearance so as not to interfere with the pipeline. Utilities include sewers, drain lines, water pipes, gas pipes, underground electric or telephone cables, etc. These facilities are not to be placed parallel to any EMPIRE pipeline within EMPIRE'S right-of-way. Septic systems shall not be built on EMPIRE'S right-of-way. However, a solid non-leaching septic line may be placed across the rights-of-way provided it adheres to the 12 inches of clearance previously stated. Sandbag padding is to be installed between EMPIRE'S pipeline and any underground utility crossing.
14. Where possible, perforated agricultural field drain tile line crossings are to be installed perpendicular to and with a minimum of 12 inches of vertical clearance to any EMPIRE pipeline.
15. Any buried metallic structure within any EMPIRE right-of-way requires the installation of an interference test station. Proper notification needs to be made to EMPIRE Corrosion Engineering and Operations Departments to review the proposed project to see how this construction could adversely affect the cathodic protection of EMPIRE facilities.
16. Grading may be permitted over any EMPIRE pipeline, however a minimum of 36 inches finished grade (48" for agricultural land) must be maintained, as verified by our EMPIRE inspector. Grading equipment with ripping blades shall not be permitted to operate within EMPIRE's rights-of-way.
17. No vibrating equipment is permitted within 25 feet of any EMPIRE pipeline without prior submission of a plan of procedures for review and approval by EMPIRE'S Engineering Department.

18. Blasting near pipelines is at the contractor's risk. EMPIRE must be notified at least two weeks in advance if any blasting is to occur within 200 feet of our pipeline. No blasting is permitted within 200 feet of any EMPIRE pipeline without submitting a plan of procedures in accordance with EMPIRE'S Blasting Specifications. See Section 6 of this Manual.
19. Vibrating compactors must be monitored by an approved vibration consultant when operating within 25 feet of any EMPIRE pipeline.
20. No excavating within 25 feet of any EMPIRE pipeline with heavy equipment. Any excavation within 25 feet shall be done with a small backhoe. No trencher shall be allowed to excavate over the pipeline. Machine excavation is permitted within 5 feet of the Empire Pipeline. Hand digging is required within 2 feet of the pipeline. The on-site Empire personnel will determine if machine excavation is permitted within 2 to 5 feet of the pipeline. No loaded bucket shall be allowed to swing over the exposed pipeline. Most excavating will be dealt with on a job to job basis.
21. If any EMPIRE pipeline is to be exposed:
 - a) Any exposed unsupported pipeline sections must be supported by nylon slings and suspended from steel I-beams which are placed across the top of the ditch. The maximum unsupported length is 15 feet.
 - b) EMPIRE will stand by while the pipeline is exposed and shall be notified to inspect the pipeline prior to backfilling operations. Any damage to the pipeline coating will be repaired by EMPIRE at the contractor's expense prior to backfilling the ditch.
 - c) Select fill is required for the first foot of backfill over the pipeline.
 - d) Coal cinders or coal ashes shall not be used as backfill material.
22. Maintain a minimum of 25 feet between any EMPIRE pipeline and the base of any berm, for example, around a pond.
23. The contractor shall comply with the instructions of EMPIRE personnel regarding the procedures to be followed while working within the restricted zone.



All logging activities which occur within the confines of EMPIRE rights-of-way must be approved prior to the commencement of the activity. In addition, an encroachment agreement or letter of agreement covering the installation of land bridges, temporary erosion controls, restoration and final inspection of the site, shall be executed by the responsible party before beginning logging activity. A bond may be required to be posted by the logging company to insure the restoration of the right-of-way area.

The EMPIRE representative overseeing the right-of-way area must be contacted at least 3 working days prior to the proposed activity. An EMPIRE representative will meet on site to discuss the proposed activity. No skidding along or within the right-of-way area will be allowed. No staging areas or stockpile areas will be allowed within the right-of-way. Perpendicular crossings of EMPIRE rights-of-way will be permitted as long as adequate measures to protect the pipeline are put in place. The logging company will identify their preferred crossing location. A EMPIRE representative will determine the requirement for mats and logging bridges constructed of wood, slash or gravel over any EMPIRE pipeline. Any potential for erosion and temporary erosion control devices within the right-of-way area will be addressed prior to the commencement of the logging activity.

Should the work be suspended for more than 4 weeks, all ruts on the right-of-way area shall be filled and graded and the area seeded with a temporary cover to prevent erosion.

Upon completion of the logging activities, all ruts shall be filled and graded. Any permanent erosion control devices removed or destroyed during the logging activity shall be restored. Temporary erosion control devices are to be installed by the logging company to ensure the proper revegetation of the right-of-way area. All disturbed areas within the right-of-way shall be seeded and mulched with a conservation blend or a seed approved by EMPIRE and the Soil Conservation Agent or the State Forester. At least 3 days prior to the completion and restoration of the right-of-way area, the logging company shall meet with a EMPIRE representative on site to determine if the area has been satisfactorily restored and the site stabilized.



When blasting within 200 feet of any EMPIRE natural gas pipeline, the following will be required:

1. All parties associated with the blasting operations will comply with all federal, state, and local regulations.
2. Contractors will submit a written blasting plan to our company representative at least two (2) weeks before blasting commences. EMPIRE Engineering Department will review the parameters of the blasting plan based on the current American Gas Association (AGA) published data concerning blasting effects on pipelines. The blasting plan should include the following information at a minimum:
 - ◆ Explosive type
 - ◆ Delay types and intervals
 - ◆ Delay pattern
 - ◆ Maximum shot hole depth and diameter
 - ◆ Hole spacing
 - ◆ Drilling pattern - show plan view and profile in relation to EMPIRE facilities
 - ◆ Maximum charge per hole
 - ◆ Maximum charge per delay
 - ◆ Type of blasting mats and method of placement

No more than one charge will be fired during each delay period.

3. Prior to actual blasting, all non-explosive means must be explored (i.e., S-Mite - a silent non-explosive).
4. The drilling pattern and initiation procedure must provide the greatest relief possible in a direction away from any EMPIRE pipeline and must minimize vibration and ground movement. The use of stress relieving trenches may be required.
5. All blasting operations will be conducted by experienced, trained, and state licensed personnel each of whom shall be in good standing with the licensing entities. Documentation of licensed blasters will be provided to EMPIRE authorized representative prior to any blasting.

6. All blasting will be done with the EMPIRE authorized representative present.
7. Contractor will supply a seismograph and qualified operator, jointly acceptable by both the contractor and EMPIRE, at contractor's expense. Seismograph readings taken over EMPIRE's affected pipeline(s) and facilities will be recorded for each blast. Results will be provided to EMPIRE'S authorized representative after each blast.
8. EMPIRE may elect to hire its own blasting consultant. The expense for same will be borne by contractor.
9. Any deviation from the guidelines of the blasting plan reviewed by EMPIRE will require prior written approval from EMPIRE'S Engineering Department. In the event the plan's peak particle velocities are exceeded, the contractor will be liable to pay the full cost of inspecting EMPIRE'S facilities and any repairs and replacements resulting from such occurrence, as well as any other costs directly resulting from such occurrence.

Compliance with these standards does not suggest or imply that the contractor, its contractors, blasters, consultants or any other associated party is relieved of any responsibility or liability in the event any of EMPIRE'S facilities are damaged in any way before, during, or after blasting operations. EMPIRE will hold all parties responsible for costs incurred for any breach of pipeline or facility integrity.

Additionally, the contractor, its contractors, blasters, consultants and any other associated party will indemnify, defend, and hold harmless EMPIRE against any and all losses, claims, and actions of any kind arising from or incident to any blasting operations. Further, EMPIRE, its contractors, blasters, consultants and other associated parties hereby waive any and all claims against EMPIRE and release EMPIRE from any and all liability related to the operation of its pipelines and facilities in the blasting area.

To initiate a mining operation, first confirm in writing the arrangements made during a meeting with EMPIRE'S representative. The following are EMPIRE'S minimum requirements:

1. If the top edge of slope of the high wall is to remain less than 30 feet in height, then no excavation shall be allowed within 25 feet of the pipeline(s).
2. If the top edge of slope of the high wall is greater than 30 feet in height, then the top edge of the slope will be maintained 25 feet plus 1/2 the height of the high wall from the pipeline. The stripping operation must be completed and overburden replaced on one side of the pipeline(s) before stripping begins on the opposite side.
3. Blasting operations conducted within 200 feet of any EMPIRE facilities must comply with Blasting Specifications, Section 5 of this Policy Manual.
4. There shall be no auguring from the area being left to support and protect the pipeline and right-of-way area. Rights-of-way crossings for water drainage and vehicle haul roads will be designed, constructed, and placed as directed by EMPIRE'S area representative. There shall be no overburden placed within any EMPIRE rights-of-way except for haul roads as directed above. These crossings shall be removed by the contractor/owner when no longer necessary. The rights-of-way are to be returned to their original condition.
6. The use of these standards by the mining contractor's personnel or assignees does not give, imply, or suggest that the contractor/owner is relieved of any responsibility in the event that the gas service is interrupted or the pipeline damaged in any manner before, during, or after the mining, blasting, or stripping operations. EMPIRE will hold the landowner and mine operator as permitted by law responsible for all costs incurred for any breach of integrity of the pipeline(s) attributable to the mining operations.

**Definitions:**1. Power Lines:

Power lines are defined as conductors for transmitting a supply of energy, either direct current (DC) or alternating current (AC), at any voltage, supplying power of more than 150 watts.

2. Communication Lines:

Communication lines are defined as conductors for telephone, telegraph, signal, control, telemeter and television antenna systems. These circuits may be private or public and operate at not exceeding 400 volts to ground or 750 volts between any two points of the circuit. The transmitted power on these lines does not exceed 150 watts.

Buried power or communication lines shall cross the pipelines at right angles and should be located so they subject the pipeline to the least practicable disturbance.

All buried conductors, whether in conduit or direct burial cable, are to be installed in accordance with requirements of the National Electric Safety Code (National Bureau of Standards Handbook 81) and the National Electrical Code (NFPA No. 70: ANSI C1 - latest editions). The latest editions of these codes are to apply, the appropriate sections being minimum requirements.

Direct burial cable for communication lines or power lines which do not exceed 600 volts should be laid with at least twelve (12) inches separation between the cable and the pipeline. All power and communications lines crossing the Empire right of way shall be encased in non-metallic conduit or, a minimum be covered with treated lumber to prevent future damage by probing. Power lines exceeding 600 volts shall be not less than twelve (12) inches from the pipeline and are to be protected by a non-metallic conduit covered with a minimum of three (3) inches of concrete. Conduits and concrete shall extend a minimum of ten (10) feet each side of the pipeline crossing.

Any crossing of EMPIRE 's right-of-way is to be approved only after an encroachment agreement containing an indemnification clause in favor of EMPIRE has been signed by both parties.

EMPIRE personnel are to be present during installation of the conductor and any associated conduit. All buried cable crossings shall be permanently marked with signs showing the location of the cable and/or conduit.



The One-Call System is a communication system that has been established to provide one telephone number for excavating contractors and the general public to call for notification of their intent to use equipment for excavating, blasting, tunneling, or other similar work.

Excavators and contractors are required to notify facility owners through the One-Call System prior to excavation or demolition work. Definition of excavation: to drill, blast, auger, bore, grade or trench, any mechanized movement or removal of soil. Failure to notify is a direct violation of the law and penalties can be enforced.

The One-Call System within our Division is working to promote public safety and eliminate service interruptions to all utilities.

NEW YORK

Dig Safely New York

1-800-962-7962

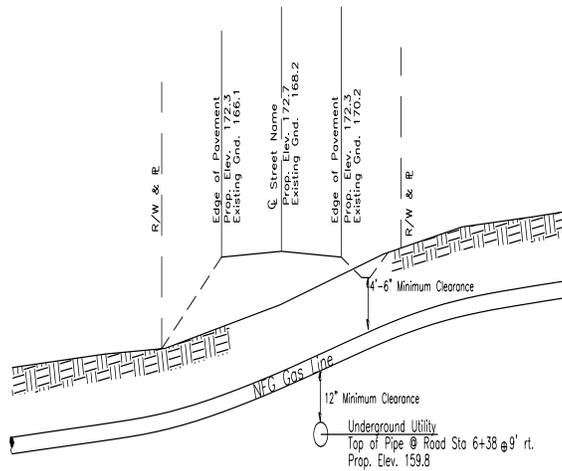
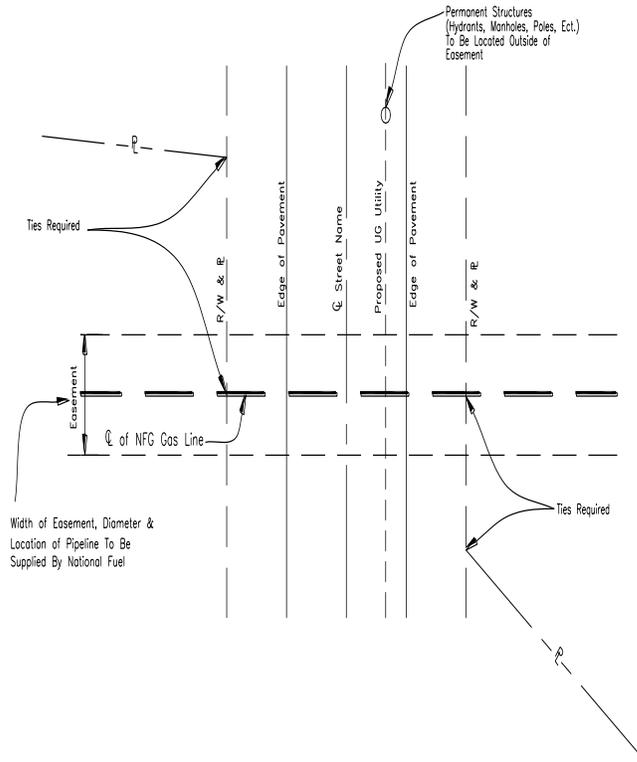
James Street, Syracuse, NY 13206

Request Time: 2 working days



All requests for review of projects involving potential encroachment of EMPIRE rights-of-way must include the following information:

1. A cover letter describing in detail the proposed project. It must include the name, address, and telephone number of the owner/developer.
2. Three (3) complete sets of drawings of the project including the following information:
 - a) A plan of the project drawn to scale, which shows location of the project. Where changes in grade are proposed in the pipeline right-of-way, existing and proposed elevations must be shown. Also, the existing pipeline elevation must be shown. You may contact our local office to coordinate excavations to determine actual pipeline elevations.
 - b) A ground profile where changes in grade are to be made in the right-of-way for things such as road crossings, excavations, fill, etc. A typical profile drawing can be found on the following page of this handbook. The drawing must be done by a registered land surveyor.
 - c) If hauling or traveling across the right-of-way is to be part of the project, vehicle information is to be supplied to EMPIRE. This is to include vehicle type, number of axles, and gross vehicle weight. EMPIRE will review this information and determine if special modifications need to be made to the depth of cover on the pipeline.
3. Following receipt of the proposed project by EMPIRE, please allow up to four weeks for project review. This time frame will depend on project complexity.



Notes:

1. Depth of pipe is to be determined by National Fuel at Contractor Expense.
2. The Developer must furnish National Fuel with profiles of any proposed road crossing.
3. Crossings must be made as near to a 90° angle as practicable.
4. Sketch must be prepared by a Registered Land Surveyor.



TYPICAL INFORMATION & DRAWING
FOR
ROAD CROSSING
OF
NFG HIGH PRESSURE GAS PIPELINE

DRAWN BY: M. Tarr	FILE NAME: K:\Library\roadcrossing.dwg
CHECKED BY: M. Wallace	SCALE: 1"=60'
APPROVED BY:	DATE: 11-5-98



Dig Safely and Dig Safely New York are not affiliated with any other company.

Location Request Information Sheet

Fill out this helpful information sheet before you call Dig Safely New York.

Company Id #: _____ Today's Date: _____

Excavating Company: _____

Caller's Name: _____

Excavator's Address: _____

City: _____ State: _____ Zip: _____

Fax: _____ Phone: _____

Field Contact Name: _____

Cellular or Field Office#: _____

Work Being Done For (If Applicable): _____

Work Date: _____ Time: _____

NYS law requires at least 2 full working days notice, not including the day you call.

Excavation Site: State: _____ County: _____

Name of City, Town, or Village: _____

Street Address of Work Site: _____

Between What Two Streets: _____

Other Pertinent Details / Additional Site: _____

Type of Work: _____

Means of Excavation: _____ Are You Blasting Yes No

Ticket ID #: _____

Members Contacted (Facility Operators)

_____ _____

_____ _____

_____ _____

_____ _____

**Call Before You Dig ~ 1-800-962-7962
And Always Dig Safely New York!**

5063 Brittonfield Pkwy., E. Syracuse, NY 13057



The following is a list of area office locations:

New York Field Locations

Empire Pipeline
P. O. Box 409
Rush, NY 14543
Phone: 585-321-1560

Or

3593 West Main Street Road
Batavia, NY 14020
Phone: 585-343-6461

New York Office Locations

Engineering Department
6363 Main Street
Williamsville, NY 14221
Phone: 716-857-7102