



Developers' Handbook



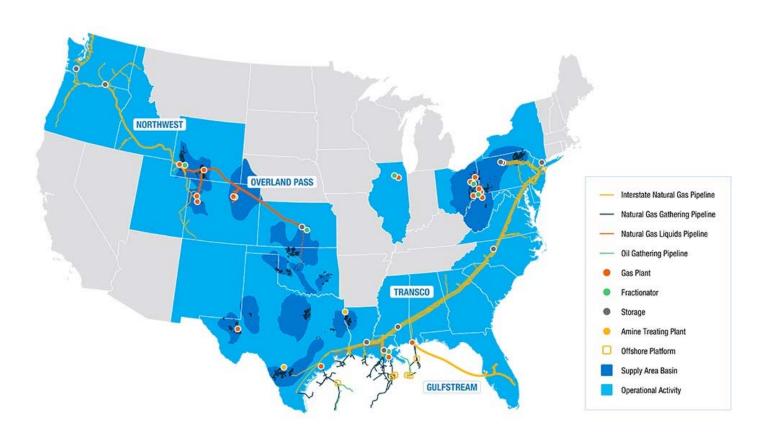


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I. Introduction

This handbook outlines the requirements for construction or maintenance activities to be followed when planning land use development on or near Williams rights of way. The handbook is intended for use by city and county/parish planners, engineers, developers, land surveyors, and anyone involved in the initial stages of land development. If Williams is included in the initial planning stages, project delays can be avoided and safe development practices in the vicinity of pipelines can be attained.

The handbook is designed to make you aware of the most common standards and procedures Williams typically requires to protect its facilities in areas of changing land use. Each proposed development or activity, however, requires a case specific evaluation by a qualified Williams representative. It should be understood that the Williams review of the proposed activity may require more stringent protective measures than outlined in this handbook. Please become familiar with the contents of this handbook. If you have further questions or need assistance, contact our encroachment hotline at 1-855-245-2300.



II. Safety and Reliability

Safety

Williams is committed to ensuring the safe operation of its natural gas and natural gas liquids (NGLs) pipeline systems. According to the federal Department of Transportation, the transmission of natural gas and NGLs through interstate pipelines is the safest means of transportation in the United States. The industry enjoys an excellent safety and reliability record. Williams has a thorough damage prevention policy to prevent pipeline failures. Damage by outside forces from a third party is the leading cause of pipeline failures, which can lead to serious injury or death.

It is critical that excavators follow appropriate guidelines to protect their safety and the integrity of the pipeline system.

Reliability

Williams is committed to reliable delivery of gas and liquid transportation services. Communities, factories, hospitals, power plants, businesses, and residences depend on our product and services for energy to generate heat and electricity.

Williams must and will use every available resource to ensure the safety and reliability of its facilities. Williams does not encourage or support any development or encroachment that interferes with the operation or maintenance of its pipelines. In those cases where development or encroachment cannot be avoided, we seek your help to ensure the safety and reliability of our facilities through proper planning and coordination with a Williams representative. As a responsible developer, contractor, or other party engaged in any ground disturbing activity near Williams pipeline facilities, we urge you to read and understand the guidelines presented in this publication.

III. Pipeline Facilities Overview

Williams' transmission operation includes highpressure steel pipelines ranging in diameter from 2" to 48", storage facilities, compressor stations, meter stations, cathodic protection equipment, valve settings, and other facilities. In accordance with federal regulations, Williams identifies the location of its pipeline facilities by installing permanent pipeline markers, like the ones shown on the following page, near road, rail, fences and where necessary to reduce the possibility of damage or interference by the actions of other persons on the pipeline right of way. Pipeline markers may also be strategically placed in extensive areas of open ground to identify the location of the pipeline.

The maintenance of pipeline markers and an open, clear right of way at all times is critical to public safety. Construction or development near transmission pipelines increases the probability of excavation damage. It is the responsibility of Williams, individual landowners, and contractors to ensure that all temporary and permanent pipeline markers installed by Williams are protected and maintained at all times, especially during construction. Removing or defacing a pipeline marker is a federal criminal offense. You can find information about other pipelines operating in your community by accessing the National Pipeline Mapping System (NPMS) on the Internet at www.npms.phmsa.dot.gov. NPMS provides emergency officials access to pipeline maps, along with product and operator contact information.

IV. Williams Right of Way Agreements

A. Description

Most of Williams' existing pipeline easements and rights were acquired through recorded agreements granting Williams, or its pipeline companies, the right to construct, operate, maintain, repair, modify, alter, protect, change the size of, remove, replace and access a pipeline or pipelines within its easement. The easement and rights are conveyed with the land in successive purchases and generally allow the current landowner the right to use and enjoy the surface of the easement, as long as that use does not interfere or conflict with Williams' existing rights.

B. Width

When the original pipeline routes were selected, agricultural, forested or rural environments were deliberately chosen whenever possible. In some cases, the original right of way agreement did not specify a defined right of way width or location on the lands covered by the agreement, and therefore included large sections of land. Where defined, Williams' rights of way vary in width from 10' to 200', depending on the number and diameter of the pipeline(s), terrain, and terms of the right of way agreement.

C. Amendments or Modifications

As the rural environment is altered and land developments are proposed, Williams, at the request of the landowner, may elect to amend or modify the right of way agreement to reflect the changing land use. Williams can work with developers to incorporate the right of way into the project design, including consent to use the right of way as a "greenway" or open space area, so long as that use does not interfere with Williams' ability to construct, operate and maintain its facilities.

NATURAL GAS



V. Legislation

A. Federal

Williams is regulated by the Department of Transportation, Pipeline & Hazardous Material Safety Administration (PHMSA). The pipeline safety regulations are administered through Title 49, Code of Federal Regulations, Part 192 and Part 195.

Parts 192 and 195 prescribe minimum standards for the safe operation of pipelines. The denser the population, the more stringent the standards for pipeline design, maximum allowable operating pressure, frequency and type of patrols, and leak surveys. In addition, Williams supports PHMSA's Common Ground Alliance Best Practices.

B. State

All of the states in which Williams operates have damage prevention laws for the protection of pipelines and other underground utilities. Most states require excavators to notify their local one-call system of their excavation plans. Williams participates in all one-call systems, which coordinate notice of excavation to participating industries.

Some jurisdictions provide for triple damages resulting from a failure to notify under the one-call system.





C. City & County/Parish

Local governments often play a major role in regulating land use by means of comprehensive planning and zoning. Some counties/parishes currently offer developer incentives to encourage easement use for parks and open space purposes. In most cases, Williams supports this initiative for the joint use of the easement area.

Some counties/parishes require an additional building setback from the pipeline easement. Please check local codes before submitting lot layout plans.

VI. Encroachments

It is Williams' philosophy to minimize encroachment and excavation activity within the limits of our pipeline right of way. Encroaching parties will design projects such that proposed improvements remain outside the pipeline right of way. Improvements that will encroach into the right of way will be designed and constructed such that the safe operation and maintenance of the pipeline(s) is not diminished. Many of Williams' right of way agreements prohibit encroachments. Williams will enforce provisions in its right of way agreements where it believes the continued safe operation and maintenance of the pipeline facilities could be threatened.

Where Williams determines that an activity can be undertaken without jeopardy to the pipeline system, Williams will require the execution of an encroachment agreement or issue a letter of no objection, depending upon the type and scope of activity proposed.

The encroachment agreement will contain all pertinent terms and conditions to be followed by the encroaching party for the planned activity and may also provide for cost reimbursement to Williams. Typically, Williams will seek reimbursement for projects that require significant design review, engineering investigation, field inspections, legal consultation or facility modification.

A. Encroachment Agreement

An encroachment agreement is specific to the project and is required when:

- Construction/maintenance activities cross under or over the pipeline.
- Construction/maintenance activities extend into the right of way.

Examples of such construction/maintenance activities may include, but are not limited to:

- · Street and road crossings
- · Ornamental fencing
- Blasting or use of explosives in the vicinity of Williams facilities
- · Heavy equipment crossings
- · Large diameter utility crossings

Other activities subject to an encroachment agreement are determined on a case-by-case basis.

In addition, third party construction/maintenance activities that necessitate Williams facility modifications (such as, but not limited to, pipeline casing extensions, pipeline relocations or replacements, and pipeline cathodic protection facility modifications) are addressed in the encroachment agreement. Reimbursement provisions may also be referenced in the encroachment agreement.

A Williams representative generally initiates the encroachment agreement. The agreement must be executed before work begins on the right of way.

In the event work commences absent such an agreement, Williams may take steps to prevent further activity.

B. Reimbursement Agreement

When is a reimbursement agreement required?

A reimbursement agreement is typically required for construction/maintenance activities proposed on the right of way, which require extensive preliminary engineering and/or field inspection services by Williams personnel.

In addition, Williams will seek a reimbursement agreement for any third-party construction/ maintenance activities that require modification to Williams facilities.

Who initiates the reimbursement agreement?

The agreement is typically initiated by a representative of Williams and must be executed before any work, preliminary engineering, or field inspection services are performed by Williams.

Encroachment/Foreign Line Crossing When is a "Williams Encroachment/Foreign Line Crossing" required?

A Williams Encroachment/Foreign Line Crossing may be required when:

- Construction/maintenance activities cross under or over the natural gas pipeline
- Construction/maintenance activities extend into the right of way

Examples of such construction/maintenance activities may include:

- · Residential water lines
- Residential television cable
- Small diameter drainage or sewer lines
- · Residential electrical lines
- Fences (livestock or typical residential)
- Residential sprinkler systems, etc.

Who initiates the "Williams Encroachment / Foreign Line Crossing"?

The agreement is initiated by a local representative of Williams and must be executed before work begins on the right of way.

VII. Notification and Construction Safety Requirements

A. Notification

In order to prevent unnecessary delays, Williams encourages close communication with our representatives beginning in the preliminary survey and design phase as well as throughout your entire project. We will be happy to attend pre-construction meetings and provide a safety/informational presentation to any interested parties, including contractors, local government maintenance crews, and developers.

All of the states in which Williams operates have "one-call" laws, which require the excavators to provide 48 to 72 hours notice, depending on local requirements, before any excavating commences. One easy phone call to 811 starts the process to get your underground utility lines marked for free. Your local one-call system will notify all participating utilities in the area of your planned excavation activities and is a simple, yet very effective, means of reducing buried utility damage.

A Williams representative must be onsite, following 48 to 72 hours prior notice, for all surface and subsurface activities within the pipeline right of way. Any crossings made without a Williams representative on site will be excavated at the excavator's expense to provide Williams an opportunity to inspect all affected pipeline facilities.

Protect yourself, utility companies, and the public. Call before you dig.

Federal regulations (OSHA 29CFR Ch. XVII-1926.651) also require excavators to notify

underground utilities prior to the start of actual excavation. Your state regulations may be more specific, but in any case, failure to notify underground utility operators of excavation activities could lead to a citation.

Williams often operates its pipelines at high pressures. To ensure the safety and reliability of our facilities and the public, we require a Williams representative to be on site while you work around our facilities. Please contact your local Williams office before work commences on, or in close proximity to a Williams right of way. A Williams representative will be on site to inspect the work and monitor the site until construction is completed.

B. Safety Requirements

Excavations must be barricaded to protect pedestrians and vehicles. Proper access into the trench must be provided. Excavations must be properly sloped or shored, as required to comply with state and Federal OSHA requirements.

Stockpiling brush, trash, or other debris on the right of way is prohibited, as it may conceal pipeline markers and hinder pipeline inspections or routine maintenance. Contact your local Williams office concerning burning restrictions.

VIII. Plan Design and Review Requirements

A. Ideal Subdivision Layout

In an ideal subdivision layout:

- The entire right of way width is preserved as open space.
- The right of way is clear and easily marked.
- Crews can undertake emergency repairs quickly.
- The right of way crosses as few landowners as possible to minimize accidental "dig-ins".
- Routine maintenance and inspections are not hindered.
- Lot lines, parallel to the pipeline(s) within the right of way are strongly discouraged and accordingly fences will not be allowed within the right of way, parallel to the pipelines.

When the proposed development plans call for the dedication of a street/road right of way to the city, county/parish, or state, it is important to note that Williams' existing easement is superior to this action and its rights are not diminished. The agency involved may require you to obtain an amended easement.



Pipeline easement in residential subdivision

B. Subdivision Plans

- Williams requires a minimum of 30 business days to review preliminary plans for impacts to the easement and to insure that all proposed improvements are designed in accordance with Williams Requirements for Landowner and Third Party Construction (Section IX).
- An open space trail, free of fences, trees and other deep-rooted plants, is the ideal right of way use. This reduces the public exposure by minimizing the opportunity for accidental "dig-ins." When this is not possible, lot division on either boundary of the right of way is preferable to splitting the right of way between lots. No lot lines, parallel to the pipelines are allowed within the right of way and accordingly fences will not be allowed within the right of way, parallel to the pipelines. Construction, maintenance and routine inspections can be disruptive to the landowner when the easement is split between lots.
- An encroachment agreement (formal recorded agreement) is usually executed between Williams and the developer/landowner to address the terms and conditions associated with the new land use.
- Williams representatives will work with your surveyor(s) and will stake the location of its pipeline facilities. This information should then be included in the plan and profile drawings submitted to Williams.
- C. Street and Road Crossing Plans
- Williams requires a minimum of 30 business days

- to review proposed road-crossing plans. Additional review time will be necessary for proposed divided highways, interstate highways and other road construction projects which require pipeline modifications.
- Provide a scope of work, description, and plan and profile drawings with your plans. Profiles are required to show depth of cover over each Williams pipeline (existing and finished grade) and the clearance between each Williams pipeline and any proposed utilities.
- Please include a location map showing the project site area, including sufficient geographical references such as legal property lines, roads, and appropriate deed information to the properties impacted.
- When new rights of way are acquired or dedicated, the costs for pipeline modifications will generally be borne by the developer, state, county/parish, or city highway department.
- Williams must be given the opportunity to make a pipeline inspection prior to the start of road construction.

IX. Williams Requirements for Landowner and Third Party Construction

See the following page.







Williams Requirements for Landowner & Third Party Construction

Rev. April 16, 2020

The following Williams specifications are minimum requirements to be followed when planning land use development on or near Williams right of way. Each proposed development or activity requires a site specific evaluation by a qualified Williams representative. It should be understood that the Williams review of the proposed activity may require more stringent protective measures than outlined below.

PIPELINE FACILITIES AND LEGISLATION

Williams' transmission operation includes high- pressure steel pipelines ranging in diameter from 2" to 48". Williams pipeline facilities include compressor stations, meter stations, storage facilities, cathodic protection equipment, valve settings and other facilities located within the limits of its rights-of-way, leased, and fee properties.

Williams is regulated by the Department of Transportation, Pipeline & Hazardous Material Safety Administration (PHMSA). The pipeline safety regulations are set forth in Title 49, Code of Federal Regulations, Part 192 "Transportation of Natural and Other Gas by Pipeline – Minimum Federal Standards" and Part 195 "Transportation of Hazardous Liquids by Pipeline – Minimum Federal Standards."

Williams will require that all Federal, State, and local ordinances and applicable utility set backs are complied with to the full extent.

ENCROACHMENTS

It is Williams philosophy to minimize encroachments and excavation activity within the limits of our pipeline right of way. Encroaching parties will design projects such that proposed improvements remain outside the pipeline right of way. Improvements that will encroach into the right of way will be designed and constructed such that the safe operation and maintenance of the pipelines is not diminished. Many of Williams right of way agreements prohibit encroachments. Williams will enforce applicable provisions in its right of way agreements where it believes the continued safe operation and maintenance of the pipeline facilities could be threatened.

NOTIFICATION AND CONSTRUCTION SAFETY REQUIREMENTS

- 1. In order to prevent unnecessary delays, Williams encourages close communication with our representative throughout your entire project. A Williams representative should participate in all pre-construction meetings. In addition, Williams can conduct a safety/informational presentation to any interested parties, including contractors, local governmental maintenance crews, and developers.
- 2. "One Call" systems require 48 to 72 hours' notice prior to any excavation activities or equipment use on or in close proximity to Williams pipeline facilities. Dial 811 to be connected to your State One Call system. No equipment use or excavation will occur in the vicinity of Williams facilities until notification to "One Call" has been made. A Williams representative will be on site prior to and during any equipment use or excavation activities. Any crossings made without a Williams representative on site will be excavated at the excavator's expense to provide Williams an opportunity to inspect all affected pipeline facilities.
- Excavations must be barricaded to protect Williams pipelines from exposure to vehicular traffic and to ensure public safety. Williams representatives must be provided safe access to all open excavations. Excavations must be properly sloped or shored in accordance with OSHA regulations.

PLAN DESIGN AND REVIEW REQUIREMENTS

- 1. Residential and/or commercial developments will be laid out such that the right of way is designated as "open" or "common" space. Maintaining an open right of way reduces public exposure and minimizes disruptions during pipeline maintenance and construction. Lot divisions will be established on either side of the right of way resulting in the actual right of way being "open" or "common" areas.
- In most cases, Williams will require the submittal of two or more full size plan and profile drawings to the appropriate Williams office for prior review and written approval by Williams. All drawings must show, in detail, all of Williams facilities and other features that will allow Williams to determine the impact of the proposed construction or maintenance activity on its facilities. Encroachment plans will include a scope of work, description, and a location map depicting the project site area. Sufficient geographical references such as legal property lines, roads, and appropriate deed information for the properties involved will be provided.
- 3. In order to ensure that all proposed improvements are designed in accordance with Williams encroachment specifications, Williams requires a

- minimum of thirty business days lead-time to review proposed encroachments. Encroachments involving road crossings will require additional review time. Any proposed road which requires pipeline modifications or a dedicated right of way will require significant lead-time.
- 4. If there are any changes to approved plans, additional review by Williams and subsequent written authorization will be required.
- 5. In some cases, there is a significant delay between the review and approval of submitted plans and actual construction. In such cases, proposed encroachment related activities will be subject to Williams requirements in effect at the time the work actually takes place.

WILLIAMS EASEMENT, PERMITS AND AGREEMENTS

- A Williams Encroachment/Foreign Line Crossing Permit Form or a letter of no objection may be required for any proposed construction within
 Williams right of way. This document prepared by Williams, will outline the responsibilities, conditions, and liabilities of each party. If required,
 this document must be executed by the encroaching party and in Williams possession prior to any work being performed on the right of way.
- 2. Williams will determine if a recorded encroachment agreement will be required for any proposed construction within Williams right of way. This agreement, prepared by Williams, will outline the responsibilities, conditions, and liabilities of each party. This agreement will be fully executed and in Williams possession prior to any work being performed on the right of way.
- 3. Williams will determine if a reimbursement agreement will be required for any construction within Williams right of way. This agreement, prepared by Williams, will outline the reimbursement procedure for necessary and appropriate preliminary engineering and actual field inspection work. This fully executed agreement, including a check made payable to the applicable Williams pipeline company for the estimated cost of Williams services, will be in Williams possession prior to any work being performed on the right of way.

GENERAL REQUIREMENTS

- No above ground structures or appurtenances are to be located within the Williams right of way. The structures and appurtenances include, but
 are not limited to: utility poles, towers, foundations, guy wires, structures supporting aerial lines, satellite dishes, manholes, catch basins, utility
 pedestals, transformers, fire hydrants, utility sheds, decks, swimming pools with associated improvements, etc.
- 2. An authorized Williams representative must be on site prior to and during any surface-disturbing work or equipment crossings performed within the right of way. Williams representative will assist in determining the location of the pipeline, the right of way width, and existing cover over the pipeline and will remain on site to monitor all activities within the right of way.
- 3. No cut or fill on the Williams right of way is permitted without Williams written approval.
- 4. Williams, at its discretion, may request evidence of comprehensive general liability insurance coverage (up to \$5,000,000 coverage) and other appropriate and usual insurance prior to any activity, maintenance, and/or construction on or near Williams right of way and facilities. In the event of significant excavation under or over Williams pipelines, Williams will require that the applicable Williams pipeline company be named as additional insured on the Certificate of Liability Insurance. The insurance limits, terms, and conditions that may be required will be dependent on the specific facilities potentially impacted and what would be usually and prudently obtained in similar industry situations.
- 5. All foreign lines will cross Williams right of way at an angle as near to 90 degrees as possible. In situations where there are multiple parallel Williams pipelines, the proposed foreign lines will either cross over or under all of Williams pipelines in the right of way. No horizontal or vertical bends are permitted within Williams right of way. Parallel occupancy of Williams right of way will not be permitted.
- 6. All foreign lines crossing Williams pipeline or related facilities will be installed with a minimum of 24" of clearance between the existing Williams facilities and the proposed foreign line. The foreign line will be installed at a uniform depth across the full width of the Williams right of way. Williams may require that all foreign lines be installed under its existing pipelines and related facilities.
- 7. Williams facilities are electrically protected against corrosion. Each metallic foreign line that enters or crosses Williams right of way must have a test lead installed. In addition, the utility contractor installing the metallic foreign line must excavate and expose one or more of Williams existing pipelines to provide for the installation of test leads by Williams employees. All necessary measures (coatings, electrical bonds, etc.) will be taken to ensure that the proposed pipe or utility is adequately protected from potential interference effects. Requests for cooperative testing will be directed to Williams Division Office, "Attn.: Supervisor, Asset Integrity."
- 8. Williams may require that foreign lines be identified with permanent aboveground markers where the lines enter and exit the Williams right of way. It is the line owner's responsibility to obtain any rights to install the markers, and to maintain the markers. A direct burial warning tape should be placed 12" to 18" above the foreign line and extend across the entire width of Williams right of way.
- 9. Foreign lines crossing Williams facilities will be installed in accordance with all applicable codes and requirements governing such installations.
- 10. Stockpiling brush, trash, or other debris on the right of way is prohibited, as it may conceal pipeline markers and hinder pipeline inspections or routine maintenance.

EXCAVATION AND BLASTING

- 1. Plans for excavation on the right of way require prior approval by Williams. No machine excavation will be performed within 24" of Williams pipelines or related facilities. Williams onsite representative may require hand digging at a distance greater than 24".
- When a backhoe is used for excavation, the bucket teeth should be curled under each time the bucket is brought back into the ditch to reduce the chance of the teeth contacting the pipeline. Side cutters must be removed from all buckets. At the discretion of Williams onsite representative, a bar may have to be welded across the bucket teeth.
- 3. No mechanical excavation may be performed by reaching over any Williams facilities.
- 4. Prior to any plowing or ripping of soil on the right of way, particularly in association with agricultural activities, plans should be reviewed with your local Williams representative to ensure proper cover exists. No vibratory plows are permitted to be used on the Williams right of way.
- 5. A detailed blasting plan must be submitted for review and written authorization prior to any proposed blasting within 200' (1,500' for surface mining) of Williams pipeline facilities and a Williams representative must be on site during all blasting. In order to provide for necessary and appropriate analysis by Williams, each licensed blasting contractor must also complete and submit a Williams Blasting Data Sheet. The blasting plan and data sheets must be submitted a minimum of ten business days prior to the proposed blasting. Specific requirements applicable to proposed blasting will be provided to the licensed blasting contractor.

DISTURBANCE, MAINTENANCE AND VEGETATION

- 1. No trees are permitted on Williams right of way. Additionally, the canopy of any trees planted adjacent to the right of way must not extend into the right of way at maturity. Any branches extending into the right of way will be side cut by Williams at its discretion.
- 2. With prior approval from Williams, some types of low growing, shallow-rooted shrubs may be permitted on the right of way provided their maximum mature height will not exceed 5' and are not within 5' of the edge of the pipeline. Williams requires that the mature plantings will not prevent Williams representatives from seeing down the right of way during routine patrols or walking down the right of way directly over the pipelines as they perform required inspections. Under no circumstances will mechanical equipment be used in the planting of shrubs.
- 3. Williams reserves the right to cut and/or remove plantings as required in the operation, inspection, and maintenance of its pipeline facilities; further, Williams assumes no responsibility for any cost involved in the replacement of said cut and/or removed landscape plantings.
- 4. All sprinkler or irrigation systems will require review by a Williams representative. Sprinkler heads will not be permitted within 10' of any pipeline or related facility. All crossings of the Williams pipelines or related facilities with feeder lines will be hand dug.

EQUIPMENT CROSSING

- 1. To protect Williams pipelines from external loading, Williams must perform an engineering evaluation to determine the effects of any proposed equipment use. Mats, timber bridges, or other protective materials deemed necessary by Williams will be placed over Williams facilities for the duration of any loading. Protective materials will be purchased, placed, and removed at no cost to Williams. The right of way must be returned to its original condition.
- 2. Williams may require temporary markings to identify areas where equipment use is authorized.
- 3. No vibratory equipment is permitted within the limits of, or in close proximity to, the Williams right of way.

FENCES

- 1. A site specific inspection is required to determine whether the proposed fence posts must be kept a minimum of 4' or 5' from the edge of any Williams pipeline or related pipeline facility. A Williams representative must be on site to determine the location of the fence posts within the right of way and for the duration of the digging of the posts. Posts installed within the right of way must be hand dug. All proposed fence crossings over Williams pipelines will cross at an angle of 90°, or as near as reasonably practicable.
- 2. Williams will have the free right of ingress and egress. Williams may require that new fences have a 12' wide gate installed within the right of way at a location approved by Williams. The gate will be installed as to minimize vehicular and equipment travel over the existing Williams facilities.

LOGGING AND TIMBER OPERATIONS

- 1. Before any logging or timber operations can begin on Company ROW, obtain written approval from the company.
- 2. Additional requirements may include, but are not limited to, the installation of land ramps, plates, or temporary erosion controls.

- 3. Refer to Insurance requirement in #4 of the General Requirements above.
- 4. An authorized Company representative must be on site prior to and during any surface disturbing work or equipment crossing performed within the ROW.
- 5. The encroaching entity must meet with a Company representative at least three days prior to the completion of the project to discuss site restoration.

NON-OCCUPANCY STRUCTURE

This section details encroachment details on sheds, barns, car ports, retaining walls, storage drums, garages, large debris, old cars, trailers, scrap metal, boulders, satellite dishes, manholes, fire hydrants, etc. Buildings or structures, whether occupied or not, may not be constructed within a Company easement. No above ground structures or appurtenances are to be located within the Company ROW. The structures and appurtenances include, but are not limited to: towers, satellite dishes, manholes, catch basins, utility pedestals, transformers, fire hydrants, utility sheds, playhouses, garages, patios, slabs/foundations, decks, swimming pools with associated improvements, or similar structures. Large debris such as old cars, trailers, scrap metal, boulders, etc., will not be permitted on the ROW. The ROW must be kept clear for maintenance and inspection.

OCCUPANY STRUCTURE

This section includes buildings, houses, occupancy trailers/mobile homes, patios, decks, play grounds, play houses, swimming pools, workshops, or similar structures. Occupied aboveground structures are prohibited within Company ROW, in order to provide for adequate maintenance and operation of Company facilities.

OVERHEAD CROSSING UTILITY

- 1. Overhead line crossings will be installed with a minimum of 30' of vertical clearance above the Williams right of way to provide adequate equipment clearance. No poles or appurtenances will be located on the Williams right of way.
- Overhead line crossings will not be installed within 50' (measured horizontally) of any gas vent (e.g. relief valve, blow down vent).
- 3. Overhead lines will cross Williams facilities at an angle as near to 90 degrees as possible.
- 4. In addition to these Williams minimum clearances, all local utility minimum clearances must be adhered to.

PARALLEL UTILITY

Parallel occupancy on an existing ROW is not allowed unless approved by the Manager, Operations. This includes trenched, trenchless (bored), and above ground installation of pipelines, cables, conduits, overhead utilities, or fences.

ROAD, RAIL, PAVED AND UNPAVED TRANSPORTATION

- 1. Williams must complete a preliminary engineering evaluation for all roads, streets, driveways, etc., proposed on Williams right of way. Any pipe casing, concrete slabs, or other protection required by Williams will be installed at no expense to Williams. Williams may require a pipeline inspection prior to construction.
- 2. The recommended minimum total cover over Williams existing pipelines is 66" at all driveways, highways, roads, streets, etc. The recommended minimum total cover over Williams existing pipelines in adjacent drainage ditches is 48".
- 3. Vibratory equipment is prohibited within the limits of the Williams right of way. Vibratory equipment is not permitted to be used for achieving applicable compaction requirements.
- 4. Driveways, highways, roads, streets, etc. crossing over Williams pipeline facilities will cross at an angle as near to 90 degrees as possible. All crossings must be over straight pipe and at locations free of any crossovers. Parallel occupancy of the right of way will not be permitted.
- 5. Williams will retain the right to cut all present and proposed driveways, highways, roads, streets, etc. and will have no responsibility for restoration, loss of use or access, or any other costs.
- 6. Access to the earth above each pipeline for leak detection (flame ionization) and cathodic protection surveys must be maintained.

SUBSURFACE CROSSING UTILITY

1. Utilities crossing Williams facilities are required to be cased to protect the integrity of the utility and the safety of Williams and third-party excavators in the future.

- 2. All buried communications (other than single residential telephone and TV) crossing Williams facilities will be installed with encased, rigid, non-metallic conduit the full width of Williams right of way. Per on site personnel, conditions may warrant (spanning issues, shoring) steel conduit across the width of the ROW when pipelines are exposed.
- 3. All buried electric cables (other than 24-volt DC power lines), including single residential service drops, crossing Williams facilities will be installed in encased, rigid, non-metallic conduit the full width of Williams right of way. Per on site personnel, conditions may warrant steel conduit across the width of the ROW when pipelines are exposed.
- 4. All buried single residential telephone, cable TV, and 24volt DC power will be encased in schedule 40 PVC casing for the full width of Williams right of way.
- 5. All fiber optic cable, including single drops, will be installed encased, rigid, non-metallic conduit the full width of Williams right of way. Per on site personnel, conditions may warrant steel conduit across the width of the ROW when pipelines are exposed.
- 6. All sanitary sewer and pressurized water lines will be installed with encased, rigid, non-metallic conduit the full width of Williams right of way. Per on site personnel, conditions may warrant (spanning issues, shoring) steel conduit across the width of the ROW when pipelines are exposed. Gravitational flow systems will be either: (1) ductile iron or steel pipe (adequately protected from Williams cathodic protection system), (2) plastic pipe installed in steel casing, or (3) concrete pipe for the full width of Williams right of way. No piping connections will be allowed within 5' of any Williams pipeline. All ductile iron utility crossings will include restrained joints for the full width of Williams right of way.
- 7. No septic tanks, liquid disposal systems, or hazardous waste disposal systems will be allowed on Williams right of way or within 25' of Williams facilities. This prohibition includes, but is not limited to, facilities that have the potential of discharging effluent from sewage disposal systems, the discharge of any hydrocarbon substance, the discharge or disposal of any regulated waste, or any other discharge that may prove damaging or corrosive to Williams facilities.
- 8. All plastic combustible material lines will be installed in steel casing for the full width of Williams right of way.
- 9. Williams may require that steel combustible material lines (adequately protected from Williams cathodic protection system) be installed under existing Williams pipeline facilities.
- 10. Williams existing pipeline facilities will be potholed to verify the horizontal and vertical location of all facilities prior to any proposed trenchless construction operation. Once all required potholes have been performed, both plan view and profile drawings showing both Williams existing facilities and the proposed trenchless crossing alignment and profile will be submitted to Williams. Plan and profile drawings are required for all proposed trenchless construction operations. If not completed, Williams may require a subsurface geotechnical investigation be completed prior to construction.
- 11. All proposed trenchless construction methods may include the installation of steel casing for the full width of Williams right of way.
- 12. Depending on the trenchless method chosen, distance between Williams facilities and the proposed crossing alignment and profile, and depth of cover, Williams may require inspection holes to be excavated to verify the depth of the bore as it approaches each pipeline. Inspection holes must be excavated to allow Williams on-site representative to visually see the boring head prior to the point where it travels beneath each pipeline.
- 13. If inspection holes are not performed, the contractor shall monitor the location with precise downhole survey instruments and verify it with surface location equipment (i.e. TruTracker, ParaTrack, or equivalent). The contractor must provide Williams the computer printout of the directional survey and TruTracker/ParaTrack (or equivalent) reports generated by the downhole survey tools daily. Report data shall be in a format suitable for independent calculation of the survey. Deviations between the recorded position and the plan and profile drawing shall be documented and immediately brought to the attention of Williams. Contractor shall notify Williams on-site representative of any drill profile failing to meet the specifications.
- 14. For a Williams asset that was installed by trenching methods, all trenchless construction shall have a minimum vertical separation of 5 feet from a Williams pipeline when crossing it perpendicular. For any trenchless construction not perpendicular to a Williams pipeline, there shall be a minimum three-dimensional separation of 10 feet. A Williams representative shall be on site to witness the bore staking, pilot hole sighting, observation hole, and any other activity associated with the drill or bore.
- 15. For a Williams asset that was installed by trenchless methods, all trenchless construction shall have a minimum vertical separation of 10 feet from a Williams pipeline when crossing it perpendicular. For any trenchless construction not perpendicular to a Williams pipeline, there shall be a minimum three-dimensional separation of 25 feet. A Williams representative shall be on site to witness the bore staking, pilot hole sighting, observation hole, and any other activity associated with the drill or bore.
- 16. An example scenario for three-dimensional separation would be 18 feet lateral separation and 18 feet vertical separation, which would result in approximately 25 feet separation. See Figure 1.

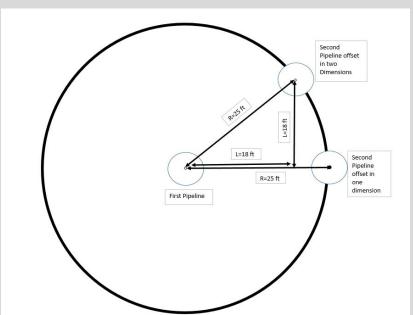


Figure 1: Three-Dimensional Separation Example

- 17. Contractor shall check for ground subsidence periodically along all attempted trenchless crossings and the final corridor within Williams right-of-way and notify Williams on-site representative immediately upon findings. Contractor shall fill any voids with a cement grout, compact subsoil within the Williams right-of-way, and restore the ground surface to original contours and conditions.
- 18. If for any reason the proposed trenchless method fails during construction or if any hole is abandoned during the process, contractor shall fill abandoned holes and/or subsurface voids within Williams right-of-way entirely with a cement grout.
- 19. Upon 15 days of completion, contractor shall furnish the alignment and profile as-built drawing with a description of the survey data used to determine the as-built location and a statement of accuracy used to create the drawing. The drawing shall be submitted in both AutoCAD and PDF format and contain all data points that are within the Williams right-of-way representing final alignment and profile, any abandoned holes, tools, strings of drill pipe, etc. overlaid on the plan and profile drawing.

SURFACE WATER

- 1. Williams may conduct preliminary engineering studies for any proposed drainage channels or ditches that will discharge toward or within the right of way. Drainage channels or ditches must be adequately protected from erosion and provide a minimum of 48" of cover over the pipelines. Altering (clearing, re-grading, or changing alignment of) an existing drainage channel or ditch requires written approval from Williams.
- Impoundment of water on Williams right of way is not permitted. Soil erosion control measures will not be installed within the Williams right of way without prior written Williams approval.

STATEMENT REGARDING RIGHTS

- Nothing contained herein will be construed to convey, waive, or subordinate any of Williams existing rights whatsoever.
- 2. Williams will be fully and completely compensated for any damages to its facilities resulting from the acts of third parties who are working in the vicinity of Williams facilities with or without Williams consent.
- 3. Williams will be indemnified from and against all claims, losses, demands, damages, causes of action, suits, and liability of every type and character, including all expenses of litigation, court costs, and attorney's fees, for injury to or death of any person, or for damage to any property, arising out of or in connection with third party work in the vicinity of Williams facilities.

WILLIAMS ENCROACHMENT/FOREIGN LINE CROSSING PERMIT FORM

**Must read when using this form: "Williams Requirements for Landowner & Third Party Construction"





Permit No.	
Revision Date	
One Call Report No.	

	Call before	re you dig									
This Encroachment/Foreign Li forth below, for the purpose of include, but are not limited to:	allowing PERMITTE	EE to construct	or maintain an encroa								
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Name:				COMP	PANY Repres	entative:					
Address:				Address:							
Phone:				Phone:							
Landowner's Name:				Division/District: Phone: CC			DLLECT CALLS ACCEPTED				
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Line/Tract No	Parcel Name/ID		Latitude					Longitude	•		
Section	Township		Range			County	/Parish		State		State
Alignment Sheet/ Map No.	Mile Post		Engineering Stations	i					ROWWidth/Config.		
Type of Encroachment/Foreign	Line Crossing Party Crossing	П .	_andownerActivity	П	NewD	NewDevelopment Oth		Other			
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Page 1 of 1

Pipelines and Informed Planning Alliance

The Pipeline & Hazardous Material Safety Administration (PHMSA) initiated the Pipelines and Informed Planning Alliance (PIPA) to help communities make risk-informed decisions for land use planning and development adjacent to transmission pipelines.



One way to protect communities and reduce transmission pipeline risks is for developers to be aware of transmission pipeline locations and risks when making decisions regarding development within 1,000 feet of pipelines. It is important that his dialogue between developers and pipeline operators occurs early in the planning process while changes can more easily be made.

PIPA has developed recommended practices for protecting communities, protecting transmission pipelines, and communicating among stakeholders. You can access PIPA's recommended practices at http://primis.phmsa.dot.gov/comm/pipa/landuseplanning.htm.

Sample of PIPA New Development Recommended Practices

NO.	TITLE AND PRACTICE STATEMENT	LOCAL GOVERNMENT	PROPERTY DEVELOPMENT/ OWNER	TRANSMISSION PIPELINE OPERATOR
ND02	Gather Information for Design of Property Development near Transmission Pipelines		Yes	Yes
	In designing a proposed property development the property developer/ owner should use all reasonable means to obtain information about transmission pipeline facilities in the area of the proposed development.			
ND03	Review Acceptability of Proposed Land Use of Transmission Pipeline Right of Way Prior to Design		Yes	
	The property developer/owner should review preliminary information about acceptable land uses on a transmission pipeline right of way prior to the design of a property development.			
ND04	Coordinate Property Development Design and Construction with Transmission Pipeline Operator		Yes	Yes
	When property development is planned within the consultation zone (reference PIPA Recommended Practice BL05), the property developer/ owner and the transmission pipeline operator should communicate to ensure possible impacts of pipeline incidents and maintenance needs are considered during development design and construction.			
ND08	Collaborate on Alternate Use and Development of Transmission Pipeline Right of Way	Yes	Yes	Yes
	Property developers/owners, local governments and transmission pipeline operators may collaborate on alternative use of the transmission pipeline right of way and related maintenance.			
ND17	Reduce Transmission Pipeline Risk in New Development for Residential, Mixed-Use, and Commercial Land Use	Yes	Yes	
	New development within a transmission pipeline planning area (see PIPA Recommended Practice BL06) should be designed and buildings located to reduce the consequences that could result from a transmission pipeline incident and to provide adequate access to the pipeline for operations and maintenance.			
ND18	Consider Transmission Pipeline Operation Noise and Odor in Design and Location of Residential, Mixed-Use, and Commercial Land Use Development	Yes	Yes	Yes

Remember, Call Before You Dig.

A new, federally-mandated national "Call Before You Dig" number, 811, was created to help protect you from unintentionally hitting underground utility lines while working on digging projects. If you plan to dig or do any type of excavation, be sure to dial 811 at least three business days before you begin. Calling 811 before every digging job gets your underground utility lines marked for free.



One free, easy call gets your utility lines marked AND helps protect you from injury and expense.

How 811 Works

One easy phone call to 811 starts the process to get your underground utility lines marked for free. When you call 811 from anywhere in the country, your call will be routed to your local One Call Center. Local One Call Center operators will ask you for the location of your digging job and route your call to affected utility companies. Your utility companies will then send a professional locator to your location to mark your lines within a few days. Once your underground lines have been marked, you will know the approximate location of your utility lines and can dig safely.

What Are the Signs of a Natural Gas Pipeline Leak?

- Blowing or hissing sound
- Dust blowing from a hole in the ground
- Continuous bubbling in wet or flooded areas
- Gaseous or hydrocarbon odor
- Dead or discolored vegetation in an otherwise green area
- Flames, if the leak has ignited

What Should I Do if I Suspect a Pipeline Leak?

Your personal safety should be your first concern:

- Evacuate the area and try to prevent anyone from entering.
- Abandon any equipment being used in or near the area.
- Avoid introducing any sources of ignition to the area.
- Call 911 or contact local fire or law enforcement.
- Notify the pipeline company.
- Do not attempt to extinguish a natural gas fire, and do not attempt to operate valves.