



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.
3. 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.
2. 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

1. 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

1. 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".
2. 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 300' (Consult with Williams for surface mining requirements) 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.
2. 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.

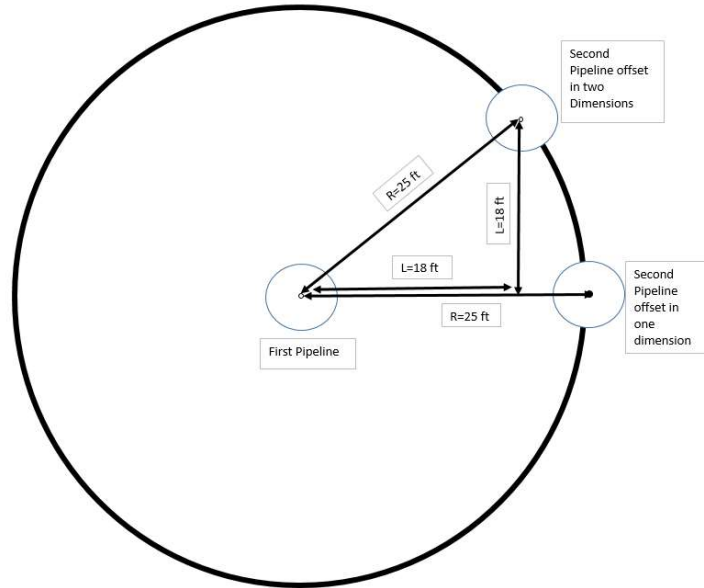


Figure 1: Three-Dimensional Separation Example

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.
2. 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

1. 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.