



RIGHT-OF-WAY REQUIREMENTS AND CONSTRUCTION ACTIVITIES GUIDELINES

NOTIFICATIONS

1. When any construction activity is conducted in or around our pipeline right-of-way, Adelphia Gateway's (AG) On-Site Representative must be present at all times. AG's contacts are as follows:

Chris McKain – Damage Prevention Technician
Cell: (732) 333-7004
Email: cmckain@NJResources.com

Roy Saudarg – Manager, Operations:
(610) 327-5343
Cell: (732) 403-7622
Email: RSaudarg@njresources.com

Adelphia Gateway
24 Hour Emergency Number Phone: (800) 747-3375

2. Excavation operations shall be performed in accordance with Pennsylvania One-Call utility locating system requirements. As a matter of law, anyone undertaking excavation work is required to call three (3) working days before excavating. Notification must also be placed with AG three (3) working days in advance of any activity (see above for AG contact information). Design or complex ticket one call serial number shall be on the drawing(s).
3. Hand digging or soft digging may be required at Adelphia Gateway's discretion.

DESIGN PLAN SUBMISSION

4. Contact AG to arrange for a field determination of the vertical and horizontal locations of the pipeline. Arrange for your surveyor to meet AG to record this information for incorporation into your design plans. At AG's request, you will be required to provide the appropriate excavation equipment (at your expense) to facilitate in accurately locating the pipeline. Do not locate the pipeline on your own. Probing to locate the pipeline is prohibited by anyone other than Adelphia Gateway personnel.
5. Using the probe-hole data, accurately depict AG's pipeline on your design plan. Include all reference and location information for each probe hole including the date and the name of the AG On-Site Representative who performed the field work.

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6. Show the pipeline (via probe hole data) on any drawings that depict existing, proposed/ future, and interim-state site conditions. Indicate which drawing sheets in the plans show the pipeline. Indicate the pipeline by pipe diameter, label “AG HIGH PRESSURE NATURAL GAS PIPELINE”, and highlight in yellow. Use the line symbol “-HPP-” to depict the pipeline.
7. On a separate sheet, show a plan and profile of the pipeline for both the existing and proposed conditions of your project. Indicate amount of cover that will be added and/or removed from the pipeline right-of-way and final grade. This includes sub-grading and over-excavation that will be performed. Any locations where the pipeline will be exposed shall be indicated. Show clearances between the pipeline and any proposed utilities that cross the right-of-way.
8. Insert AG’s Right-of-Way Requirements and Construction Activities Guidelines directly in your drawing plans.
9. Submit two (2) copies of your design plans (including plan and profile of the pipeline) to the following address for review and approval:

Adelphia Gateway
214 Shoemaker Road
Pottstown, PA 19464- 6422
Attention: Engineering Department
10. Owners and developers are encouraged to involve AG in the design phase of their project in order to ensure all of AG’s requirements are being met and to facilitate the review process.

SAFETY IS AG’S NUMBER ONE PRIORITY AND IT IS CRITICAL THAT THE PIPELINE RIGHT-OF-WAY IS CLEAR AND ACCESSIBLE IN ORDER TO ENSURE SAFETY AND FACILITATE EMERGENCY RESPONSE ACTIVITIES.

EXCAVATIONS

11. The Crossing Party shall contact AG for re-marking of a pipeline if the existing markers are inadequate for any reason, including disturbance due to construction activities.
Note: Federal law prohibits the removal of pipeline markers.
12. When excavating within the right-of-way, the Crossing Party’s excavator bucket shall have a plate welded over the teeth, and the side cutters must be removed prior to excavation.

13. Within 24 inches of the outer edge of the pipe (this “tolerance zone” extends on all sides of the pipe), only hand excavation, air cutting, and vacuum excavation are permitted. After the pipeline has been exposed, machine excavation may be authorized by the AG On-Site Representative.
14. No excavations shall be made on land adjacent to the pipeline that will in any way impair, withdraw lateral support, cause subsidence, create the accumulation of water, or cause damage to the pipeline or right-of-way.
15. All excavation work shall comply with OSHA’s excavation standards outlined in 29 CFR 1926 and any non-compliant excavation shall be corrected before AG’s On-Site Representative or the Crossing Party enters the site to perform work.
16. If conditions require, the Crossing Party shall be directed by AG to install sand or cement bags or other suitable insulating materials to maintain proper vertical clearance from the pipeline.
17. At any location where the pipeline is exposed, the Crossing Party shall provide AG the opportunity to inspect the pipeline condition, install cathodic protection test leads, and/or install underground warning mesh.
18. No buried pipeline may be left exposed for any duration of time without concurrence of the AG On-Site Representative.
19. Backfill and compaction shall be performed to the satisfaction and in the presence of the AG On-Site Representative. At least 6 inches of fine, loose earth or sand with no sharp gravel, rock, hard clods, vegetation, or other debris shall be placed on all sides of any pipeline, and remaining backfill shall be placed so as not to disturb this padding material or damage the pipeline. Backfill over the pipe shall be compacted by hand until 18 inches of cover is achieved. The disturbed ground shall be compacted to the same degree of compaction of surrounding areas. The Crossing Party shall restore the site to its original condition except for items that are part of the AG approved change.

ABOVEGROUND AND BELOWGROUND MODIFICATIONS & STRUCTURES

20. The existing cover shall not be modified without AG written approval.
21. The final grading shall be a net of 36 inches of cover unless in areas within 50 feet of a building in which the final grading shall be a net of 48 inches.
22. The maximum allowable cover shall not exceed 6 feet without AG’s written approval.
23. Use of vibratory equipment is not permitted within the pipeline right-of-way.

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24. Detention ponds, lakes, or any other structure that causes the impoundment of water on the pipeline right-of-way (temporary or permanent) is prohibited.
25. Culverts are not permitted within the pipeline right-of-way.
26. Any modifications to existing topographic features shall be designed so as to not allow erosion of the pipeline cover.
27. For streams, channels, and ditches, a minimum clearance of 60 inches is required from the bottom of the waterway to the top of the pipeline.
28. Buildings, balconies, patios, decks, sheds, swimming pools, tennis courts, wells, walls, septic systems, drain fields, propane tanks, transformer pads, storage of materials, or any structure which creates an obstruction or prevents the inspection of the right-of-way by air or foot shall not be placed in the pipeline right-of-way.
29. Retaining walls, drive piling, sheeting, or any engineered structure that impacts overburden on the pipeline is prohibited.
30. Foundations (e.g., piers, caissons, shafts, piles) within in 500 feet of the pipeline must be drilled so as to prevent construction-induced vibrations from damaging the pipeline.
31. Deep foundations that include piers, caissons, drilled shafts, bored piles, and cast-in-situ piles located within 500 feet of the pipeline shall be installed using an auger.
32. Occupied structures must maintain a distance of 50 feet from the pipeline unless a minimum of 48 inches of cover over the pipeline is developed.
33. Trees and large shrubs and bushes are not allowed in the pipeline right-of-way.
34. Flowerbeds, vegetable gardens, lawns, and low shrubbery not exceeding 30 inches in height are permitted.
35. Fences that impede AG's access to the pipeline right-of-way are prohibited.
 - a. Fences must include a gate of minimum 8 feet width for ingress/egress of Pipeline Maintenance activities. Individual situations may vary that would require either a smaller or larger gate, at the sole discretion of Adelphia Gateway.
 - b. Fences must allow line-of-sight of the Pipeline right-of-way per Federal statutes. This may require additional Pipeline markers or signs to be placed in the right-of-way where applicable.
 - c. Fences in the pipeline right-of-way are subject to removal, at Owners expense, should it become necessary for pipeline maintenance activities.

36. No fence post shall be placed within 2 feet of the outer edge of the pipeline (i.e. nominally 6 feet span between posts, with pipeline at the centerline). Fence posts in the pipeline right-of-way shall be HAND dug only.
37. Fences shall cross the pipeline at a minimum of 60 degrees.
38. Fences that run parallel to the pipeline must be installed outside the right-of-way.
39. Masonry, brick, or stone walls are not permitted within the pipeline right-of-way.
40. Roads, driveways, sidewalks, or parking areas shall not be constructed across or within the pipeline right-of-way without AG's written approval.
41. Roads, driveways, sidewalks shall cross the pipeline perpendicularly.
42. Roads, driveways, sidewalks shall not occupy AG's pipeline right-of-way longitudinally.
43. Within 25 feet of the pipeline, vibratory equipment no larger than a small walk-behind unit is permitted.
44. For roads and driveways, a minimum of 48 inches of cover is required consisting of a net of 36 inches of undisturbed soil directly above the pipeline.
45. For road drainage ditches, a minimum of 36 inches of cover is required. This cover can be reduced to 24 inches if the ditch is lined with rock/rip-rap (or equivalent) and 12 inches if the ditch is lined with concrete.
46. For asphalt parking lots and sidewalks, a minimum cover of 36 inches is required consisting of a net of 24 inches of undisturbed soil directly above the pipeline.
47. All utilities shall cross perpendicular and underneath the pipeline, with a minimum clearance of 24 inches with the exception of underground service entrances to single family dwellings.
48. Sand or select fill shall be placed between the pipeline and the utility.
49. Warning tape, in accordance to A.P.W.A. Uniform Color Code, shall be placed above the utility, 12 inches below grade, and for 25 feet on either side of the crossing.
50. Signage shall be placed at the crossing as directed by the AG On-Site Representative.

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51. Trenchless excavation plans for the installation of any utility or structure crossing the pipeline right-of-way shall be submitted to AG for review and written approval. A minimum of 10 feet clearance between the pipeline and the utility is required. For each proposed crossing, the AG pipeline shall be excavated 50ft in length x 2ft underneath. In the bottom of this trench shall then be installed a 3/4" minimum thickness A36 steel plate, the purpose of which would be to protect the AG line during HDD operations.
52. Bonds and test leads on metal utilities crossing the pipeline shall be installed by the Crossing Party (at their expense) as directed by the AG On-Site Representative.
53. Metallic utilities shall be coated with a non-conductive coating for a distance of 50 feet on either side of the pipeline crossing.
54. Ductile and PVC water pipe shall include nitrile gaskets within 50 feet on either side of the pipeline crossing.
55. Non-metallic utilities shall be wrapped with tracer wire within the width of the pipeline right-of-way.
56. Natural gas (or any other gas) lines shall be encased in a 6-inch envelope of 2,000 psi YELLOW concrete within the width of the right-of-way.
57. All electrical, fiber-optic, and communications cables shall be installed in Schedule 80 PVC pipe and encased in a 6-inch envelope of 2,000 psi RED (electrical) or ORANGE (communications) concrete within the width of the right-of-way.
58. For above ground cables, a minimum of 20 feet of above grade clearance is required across the width of the pipeline right-of-way.
59. Mechanical supports and service drops including poles, towers/poles, guy wires, ground rods, anchors, splice boxes, and any energize equipment are not permitted within the pipeline right-of-way.
60. Railroad crossings for both main and spur lines shall be designed to the latest revision of AREMA Manual for Railway Engineering and subject to review and written approval by AG.
61. Farming field tile running parallel to the pipeline shall be spaced a minimum of 10 feet from the pipeline right-of-way.
62. Farming field tile shall cross perpendicularly with a clearance of 12 inches above or below the pipeline.

CONSTRUCTION ACTIVITIES

63. Trucks carrying a maximum axle load up to 15,000 pounds may cross the pipeline right-of-way on after it has been confirmed by the AG On-Site Representative that there is a minimum cover of 48 inches.
64. The Crossing Party shall provide AG with a list of construction equipment that will cross the pipeline right-of-way. AG will perform loading calculations to ensure the safe crossing of equipment over the pipeline. Depending upon the depth of the pipeline and the type of equipment, earthen rams, swamp mats, concrete slabs, or steel plates may be required to protect the pipeline.
65. The Crossing Party shall limit the number of temporary construction roads across the pipeline right-of-way.
66. Deep plowing or “ripping” operations shall be reviewed and approved by AG.
67. Construction activities that generate ground vibrations shall be identified by the Crossing Party for AG's review. Some examples of these activities include, but are not limited to pile driving, sheet driving, soil compaction, jackhammering, or ramming.
68. If activities that generate ground vibrations occur within 300 feet of the pipeline, the Crossing Party shall provide seismic monitoring service at their expense. The peak particle velocity of any one component of a three-component seismograph must not exceed 2 inches per second as recorded by a seismograph placed directly over the pipeline at ground level.
69. For blasting within 500 feet of the pipeline, the Crossing Party must submit a blasting plan in compliance with 25 PA Code, Chapter 1, Subchapter H to AG for review and written approval. If blasting occurs within 300 feet of the pipeline, the Crossing Party shall provide 3rd Party seismic monitoring service at their expense. The peak particle velocity of any one component of a three-component seismograph must not exceed 2 inches per second as recorded by a seismograph placed directly over the pipeline at ground level. Blasting within 50 feet of the pipeline is strictly prohibited.