

Appendix H

Agricultural Impact Mitigation Agreement

for

DRAFT

ENVIRONMENTAL ASSESSMENT

Dakota Access Pipeline Project

Crossings of Federal Projects and Flowage

Easements

Prepared by:

Dakota Access, LLC
1300 Main Street
Houston, TX 77002

Prepared for:

U.S. Army Corps of Engineers
St. Louis District
1222 Spruce Street
St. Louis, MO 63103

August 2016

AGRICULTURAL IMPACT MITIGATION AGREEMENT (“AIMA”)
between
DAKOTA ACCESS, LLC (“DAKOTA ACCESS”)
and the
ILLINOIS DEPARTMENT OF AGRICULTURE
pertaining to the construction of
THE DAKOTA ACCESS PIPELINE (DAPL) PROJECT
A LIQUID PETROLEUM PIPELINE AND RELATED APPURTENANCES
in
HANCOCK, ADAMS, SCHUYLER, BROWN, PIKE, MORGAN, SCOTT, MACOUPIN, MONTGOMERY,
BOND, FAYETTE AND MARION COUNTIES, ILLINOIS

The Illinois Department of Agriculture (IDOA) and Dakota Access, LLC (Dakota Access, “the Company”) agree to the following measures which the Company will implement as it constructs the pipeline across agricultural land in Hancock, Adams, Schuyler, Brown, Pike, Morgan, Scott, Macoupin, Montgomery, Bond, Fayette and Marion Counties, Illinois described in the Company’s application to the Illinois Commerce Commission (ICC) for a Certificate in Good Standing, Docket 14-0754. The liquid petroleum pipeline subject to this agreement consists of one new 30-inch diameter crude petroleum pipeline originating in North Dakota and traversing through South Dakota, Iowa, and Illinois, more specifically described as entering the State of Illinois and crossing the Mississippi River just north of Hamilton, Illinois running north west to south east terminating at the Patoka tank farm area just north of Patoka, Illinois. The Dakota Access Pipeline (DAPL) project will connect with the Energy Transfer Crude Oil Pipeline (ETCOP) project which will begin near the Patoka tank farm area, allowing crude petroleum oil to flow from North Dakota to the Texas gulf coast area. A separate AIMA plan has been developed for the ETCOP project. The mitigative actions outlined in this Agreement will serve to minimize the negative impacts that may occur due to pipeline construction.

If construction does not commence within two years from the issuance of the Illinois Commerce Commission Certificate to Construct, the AIMA will be revised, with the Company’s input, to reflect the IDOA’s most current Pipeline Construction Standards and Policies. This AIMA, and any updated AIMA, will be filed with the Illinois Commerce Commission by Dakota Access.

The construction standards and policies described below apply to construction activities occurring partially or wholly on privately owned agricultural land. They do not apply to construction activities occurring entirely on public right-of-way (which does not include the term “Right-of-way” defined below), railroad right-of-way, publicly owned land, or privately owned land that is not agricultural land. The Company will, however, adhere to the construction standards relating to the repair of drainage tile when drainage tiles are encountered on public highway right-of-way, railroad right-of-way, and publicly or privately owned land.

Introduction

The Company will retain qualified professionals on each work phase of the project. The qualified professionals may be engineers, soil scientists, agronomists and/or construction and environmental inspectors as appropriate during each phase of the project. This shall include initial Agreement development, construction, initial restoration, and post-construction monitoring and follow-up restoration. The qualified professionals shall act to assure that the provisions set forth in this document or in any separate agreement, will be adhered to in good faith by the

Company and by the pipeline installation contractor(s), and that all agreements protect the resources of both the Landowner and the Company.

The qualified professionals shall assist with the collection and analyzing of site-specific agricultural information gathered for the Agreement development by the Company. This information will be obtained through field review as well as direct contact with affected Landowners and farm operators, local County Soil and Water Conservation Districts (SWCDs), Agricultural Extension Agents and others. The Company shall provide a courtesy copy of the site specific information to the appropriate local County SWCD(s) any time an Agreement modification is submitted.

The Company shall also retain Agricultural Inspectors that will work with the appropriate onsite Company Project Inspectors and Project Contractors throughout the construction phase and through other phases as needed. The Agricultural Inspector will also maintain contact with the affected Landowners and farm Tenants in conjunction with Company rights-of-way agents, as well as local county SWCD personnel concerning farm resources and management matters pertinent to the agricultural operations and the site-specific implementation of the Agreement.

The Company will employ Agricultural Inspectors that are, at a minimum, thoroughly familiar with the following:

- This Agreement;
- Company Plans and Procedures;
- Pipeline Construction Sequences and Process;
- All aspects of production agriculture, soil and water conservation, and Farm operations.

The Agricultural Inspector will possess:

- Good oral and written communication skills, and the ability to work closely with the Landowner, Tenants, project sponsor and project contractor(s).

The Company will employ a minimum of one Agricultural Inspector per construction (installation) spread.

When permitted by law and contract, the Company shall encourage its pipeline contractor(s) to use, where and if available, local drain tile contractors to redesign, reconstruct, and/or repair any subsurface drain tile lines that are affected by the pipeline installation. Often, the local contractors have installed the Landowner's drain tile system and can have valuable knowledge as to the location, depth of cover, appurtenances, and any other factors affecting the tile operation. The drain tile contractor(s) shall follow the attached construction specifications (Refer to 3.D).

Unless the easement or other agreement between the Landowner and the Company provides to the contrary, the actions specified in the pipeline standards and construction specifications contained in this Agreement will be implemented in accordance with the conditions listed below.

Conditions of the Agreement

The mitigative actions specified in the construction standards and policies set forth below will be implemented in accordance with the conditions listed below:

- A. All mitigative actions are subject to modification through negotiation by Landowner and a representative of the Company, provided such changes are negotiated in advance of any construction, maintenance, or repairs.
- B. The Company may negotiate with Landowner to carry out the mitigative actions that Landowners wish to perform themselves.
- C. All mitigative actions employed by the Company, unless otherwise specified in these construction standards and policies or in an easement negotiated with an individual Landowner, will be implemented within 45 days of completion of the pipeline facilities on any affected property, weather and Landowner permitting. Temporary repairs will be made by the Company during the construction process as needed to minimize the risk of additional property damage that may result from an extended construction time period. If weather delays the completion of any mitigative action beyond the 45 day period, the Company will provide the affected Landowner(s) with a written estimate of the time needed for completion of the mitigative action.
- D. All mitigative actions will extend to associated future construction, maintenance and repairs by the Company.
- E. The Company will provide the IDOA with one set of mailing labels of all Landowner and known Tenants, on a county-by-county basis, who are affected by the proposed pipeline. As the list of affected Landowners and Tenants is updated, the Company will notify the IDOA of any additions or deletions. All labels will be sent to the IDOA upon execution of this agreement. The IDOA will use the labels for mailing this Agreement to the Landowner and Tenants. The IDOA will also provide this Agreement to the Farm Bureau and Soil and Water Conservation District offices in the affected counties for the purpose of holding Landowner informational meetings.
- F. Every effort will be made by the Company to determine all affected Landowners and Tenants along the route of the pipeline. The Company will endeavor to keep the Landowners and Tenants informed of the project's status, meetings and other factors that may have an impact upon their farming operations.
- G. After construction, the Company will provide the IDOA with "as built" drawings (strip maps) showing the location of all tile lines by survey station encountered in the construction of the pipeline. The drawings and GPS tile line repair coordinates will be provided on a county-by-county basis for distribution by the IDOA to the respective county Soil and Water Conservation Districts for the purpose of assisting Landowners with future drainage needs.
- H. In addition, all affected Landowners will receive a copy of the drainage tile repairs location map with GPS coordinates identified as the pipeline crosses their property.
- I. Prior to the construction of the pipeline, the Company shall provide each Landowner or Landowner's Designate and Tenant with a telephone number and address which can be used to contact the Company, both during and following the completion of construction, regarding the work that was performed on their property or any other construction-related matter. The Company shall respond promptly to Landowner or Landowner's Designate and Tenant's telephone calls and correspondence.

- J. The Company agrees to include this Agreement as part of its submissions to the ICC.
- K. The Company agrees to include a statement affirming its adherence to the construction standards and policies in any environmental assessment and/or environmental impact statement that may be prepared on the project.
- L. The Company will implement all mitigative actions contained in this Agreement to the extent that they do not conflict with the requirements of applicable federal, state and local rules and regulations and other permits and approvals that are obtained by the Company for the project.
- M. Each mitigative action contained in this Agreement will be implemented to the extent that such mitigative action is not determined to be unenforceable by reason of the mitigative actions approved by, or other requirements of, the ICC Certificate issued for the project.
- N. A forester with local expertise shall be hired by the Company to appraise the merchantable value of any timber to be cut for construction of the pipeline. The Landowner shall be compensated 100 percent of the value.
- O. The Company will use good faith efforts to consult with both Landowners and Tenants of a given property in accordance with the terms of this Agreement.
- P. The Company will incorporate by reference, the terms of this Agreement, in easement agreements executed with Landowners on Agricultural Land in Illinois. However, in the event of a conflict between this Agreement and an easement agreement, the easement agreement will control.

Definitions

Agricultural Land	Land used for cropland, hayland, pasture land, managed woodlands, truck gardens, farmsteads, commercial ag-related facilities, feedlots, livestock confinement systems, land on which farm buildings are located, and land in government set-aside programs.
Best Management Practice (BMP)	Any structural, vegetative or managerial practice used to treat, prevent or reduce soil erosion. Such practices may include temporary seeding of exposed soils, construction of retention basins for storm water control and scheduling the implementation of all BMPs to maximize their effectiveness.
Company	Dakota Access, L.L.C. and any contractor or sub-contractor in the employ of the Company for the purpose of completing construction of the pipeline or any mitigative actions covered by this Agreement.
Cropland	Land used for growing row crops, small grains, or hay; includes land which was formerly used as cropland, but is currently in a government set-aside program and pastureland comprised of prime farmland.
Drainage Tile	Artificial subsurface drainage system including, but not limited to, clay and concrete tile, vitrified sewer tile, corrugated plastic tubing, and stone drains.

Landowner	Person(s) holding legal title to property on the pipeline route from whom the Company is seeking, or has obtained, a temporary or permanent easement, or any person(s) legally authorized by a Landowner to make decisions regarding the mitigation or restoration of agricultural impacts to such Landowner's property.
Landowner's Designate	Any person(s) legally authorized by a Landowner to make decisions regarding the mitigation or restoration of agricultural impacts to such Landowner's property.
Non-agricultural Land	Any land that is not "Agricultural Land" as defined above.
Pipeline	The 30-inch crude petroleum pipeline and related appurtenances located in Hancock, Adams, Schuyler, Brown, Pike, Morgan, Scott, Macoupin, Montgomery, Bond, Fayette and Marion Counties, Illinois, as described in the Company's application to the Illinois Commerce Commission (ICC) for a Certificate in Good Standing.
Prime Farmland	Agricultural land comprised of soils that are defined by the USDA Natural Resources Conservation Service as being "prime" soils (generally considered the most productive soils with the least input of nutrients and management).
Right-of-way	The permanent and temporary easements the Company acquires for the purpose of constructing and operating the pipeline.
Spread	Each major segment of project right-of-way where pipeline construction will occur. Spread length for a particular project may vary from a few miles up to ±60 miles.
Surface Drains	Any surface drainage system such as shallow surface field drains, grassed waterways, open ditches, or any other conveyance of surface water.
Tenant	Any person lawfully residing on or leasing/renting of the land.
Topsoil	The uppermost layer of the soil that has the darkest color or the highest content of organic matter, more specifically defined as the "A" horizon. The surface layer of the soil has the darkest color or the highest content of organic matter (as defined in the USDA County Soil Survey and verified with samples as stipulated under 2.A below).

Construction Standards and Policies

1. Pipeline Depth

- A. Except for aboveground piping facilities, such as mainline block valves, tap valves, meter stations, etc., the pipeline will be buried with:
 - 1. a minimum of 5 feet of top cover where it crosses cropland (see 1.A.5 below), or as agreed upon with the Landowner.
 - 2. a minimum of 5 feet of top cover where it crosses pasture land or other agricultural land comprised of soils that are classified by the USDA as being prime soils (see 1.A.5 below), or as agreed upon with the Landowner.
 - 3. a minimum of 3 feet of top cover where it crosses pasture land and other agricultural land not comprised of prime soils.
 - 4. a minimum of 3 feet of top cover where it crosses wooded/brushy land.
 - 5. essentially the same top cover as an existing parallel pipeline, but not less than 5 feet, where the route parallels an existing pipeline within a 100 foot perpendicular offset.
- B. Notwithstanding the foregoing, in those areas where (i) rock in its natural formation and/or (ii) a continuous strata of gravel exceeding 200 feet in length is encountered, the minimum top cover will be 30 inches.
- C. On agricultural land subject to erosion, the Company will patrol the pipeline right-of-way with reasonable frequency to detect areas of erosion of the top cover. In no instance will the Company knowingly allow the amount of top cover to be less than 36 inches as a result of natural erosion, except as stated in 1.B. above.

2. Topsoil Replacement

- A. The topsoil depth shall be determined by a properly qualified soil scientist or soil technician who will set stakes or flags every 200 feet along the right-of-way identifying the depth of topsoil to be removed. As an alternative, the Company can obtain information from consultations with local Soil and Water Conservation District(s).
- B. The actual depth of the topsoil, a minimum of 12 inches or actual depth of topsoil if less than 12 inches but not to exceed 36 inches, will first be stripped from the area to be excavated above the pipeline and from the adjacent subsoil storage area. The topsoil will be stored in a windrow parallel to the pipeline trench in such a manner that it will not become intermixed with subsoil materials. Topsoil may be stored at either edge of the right-of-way but not intermixed with subsoil materials.
- C. Where topsoil will not be stripped off a parallel pipeline easement, an organic physical barrier (such as straw) will be placed on the surface of the undisturbed topsoil prior to placement of the subsoil.
- D. In certain circumstances, topsoil may be stripped from the full width of the construction easement (including the working side or travel lane) to prevent equipment traffic from mixing topsoil with the subsoil. An additional 10 feet of construction easement may be required for the additional topsoil storage.
- E. Subsoil material that is removed from the trench will be placed in a windrow parallel to the pipeline trench that is separate from the topsoil windrow(s).

- F. In backfilling the trench, the stockpiled subsoil material will be placed back into the trench before replacing the topsoil.
- G. Refer to Items No. 5.A. and 5.B. for procedures pertaining to rock removal from the subsoil and topsoil.
- H. Refer to Items No. 7.A. through 7.C. for procedures pertaining to the alleviation of compaction of the topsoil.
- I. The topsoil must be replaced so that after settling occurs, the topsoil's original depth and contour (with an allowance for settling) will be restored. The same shall apply where excavations are made for road, stream, drainage ditch, or other crossings. In no instance will the topsoil materials be used for any other purpose. On property where the Landowner does not permit a crown on the pipeline trench line, regrading may be necessary in this area in subsequent growing seasons after its initial construction. In this situation, the Company will regrade the ROW up to the width of the construction ROW width and may redistribute soils within the upper 12 inches to restore the contours and the elevations. Redistribution shall not mix topsoil and subsoil profiles.

3. Repair of Damaged Tile Lines

If underground drainage tile is damaged by the pipeline's construction, it will be repaired in a manner that assures the tile line's proper operation at the point of repair. The following standards and policies shall apply to the tile line repair:

- A. The Company will endeavor to locate all tile lines within the right-of-way prior to the pipeline's installation so repairs can be made quickly if necessary. The Company will contact affected Landowners/Tenants for their knowledge of tile line locations prior to the pipeline's installation. If the location of tile lines is known precisely, those tile lines will be staked or flagged prior to construction to alert construction crews to the possible need for tile line repairs. If previously unidentified, tile lines that are encountered and cut during grading or trenching activities will be flagged at that time.
- B. Tile lines that are damaged, cut, or removed shall be staked or flagged with the stakes or flags placed in such a manner they will remain visible until the permanent repairs are completed. In addition, the location of damaged tile lines will be recorded using Global Positioning Systems technology. The GPS coordinates shall be provided to affected Landowners and SWCDs.
- C. If water is flowing through any damaged tile line, the tile line will be immediately and temporarily repaired until such time that permanent repairs can be made. If the tile lines are dry and water is not flowing, temporary repairs are not required if the permanent repairs can be made within 14 days of the time damage occurred; however, the exposed tile lines will be screened or otherwise protected to prevent the entry of foreign materials, small mammals, etc. into the tile lines.
- D. Where tile lines are severed by the pipeline trench, repairs shall be made using IDOA Tile Bridge Permanent Repair Standards and/or ETCOP/DAPL Temporary and Permanent Drain Tile Repair Drawings (see attached).
- E. The Company will do its best to maintain a minimum of two foot of separation between the tile line and the pipeline whether the pipeline passes over or under the tile line. In cases where the two foot separation cannot be maintained, the Company will inform the Landowner.

- F. The original tile line alignment and gradient shall be maintained. A laser transit shall be used to ensure the proper gradient is maintained.
- G. Before completing permanent tile repairs, all tile lines will be probed or examined by other suitable means on both sides of the trench for their entire length within any work areas to check for tile that might have been damaged by vehicular traffic or construction equipment. If tile lines are found to be damaged, they must be repaired so they operate as well after construction as before the construction began.
- H. Permanent tile line repairs will be made within 14 days of the pipeline being laid in the trench on the Landowner's property, weather and soil conditions permitting. All temporary repairs will be maintained until permanent repairs are complete.
- I. Following completion of the pipeline, the Company will be responsible for correcting all tile line repairs that fail due to pipeline construction, provided those repairs were made by the Company. The Company will not be responsible for tile line repairs that the Company pays the Landowner to perform.

4. Installation of Additional Tile Lines

- A. The Company shall be responsible for returning the property to reflect pre-construction conditions. The Company shall be responsible for installing such additional drainage tile and other drainage measures as are necessary to properly drain wet areas on the permanent and temporary easements to the extent caused by the construction and/or existence of the pipeline.
- B. Where the pipeline's route parallels an existing pipeline within a 200-foot perpendicular offset, the Company shall be responsible for installing tile and/or other drainage measures, as necessary, to properly drain the area between the two pipelines to the extent the wet areas between the pipelines are caused by the construction and/or existence of the pipeline.
- C. It is presumed that any wet areas located in permanent and temporary easements and/or between the two parallel pipelines are caused by the construction and/or existence of the new pipeline unless the Company can prove that the construction and/or existence of the new pipeline is not the cause of the wet areas.

5. Rock Removal

The following rock removal procedures only pertain to rocks found in the uppermost 42 inches of soil, the common freeze zone in Illinois.

- A. Before replacing any topsoil, all rocks greater than 3 inches in any dimension will be removed from the surface of all exposed subsoil and from all subsoil that is replaced back in the trench until similar conditions on the right-of-way as compared to the adjacent off right-of-way are achieved.
- B. After the topsoil is replaced, all rocks greater than 3 inches in any dimension will be removed from the topsoil until similar conditions on the right-of-way as compared to the adjacent off right-of-way are achieved.
- C. If trenching, blasting, or boring operations are required through rocky terrain, suitable precautions will be taken to minimize the potential for oversized rocks to become interspersed with adjacent soil material.

- D. Rocks and soil containing rocks removed from the subsoil areas, topsoil, or from any excavations, will be hauled off the Landowner's premises or disposed of on the Landowner's premises at a location that is mutually acceptable to the Landowner and the Company.

6. Removal of Construction Debris

All construction-related debris and material that are not an integral part of the pipeline will be removed from the Landowner's property. Such material to be removed would include litter generated by the construction crews. Litter generated by construction crews shall be removed daily.

7. Compaction, Rutting, Fertilization and Liming

- A. Prior to the topsoil being replaced, all areas that were traversed by vehicles and construction equipment will be ripped at least 16 inches deep in agricultural land and all pasture and woodland will be ripped at least 12 inches deep. Ripping depth may be limited to a shallower depth if the presence of drain tile, utilities, stumps and large quantities of roots limits ripping depths, if approved by the Landowner. Decompaction shall be conducted according to the guidelines provided in Appendices A and B.

Alternate decompaction can be implemented based upon site specific soil and moisture content conditions in consultation with Landowner.

- B. The Company will restore rutted land within the easement to reflect its original condition.
- C. The cost of fertilizer, manure, and/or lime will be included in the damages paid to the Landowner, thereby allowing the Landowner to apply the appropriate type and amounts of fertilizer, manure, and/or lime as needed depending on the crops contemplated and the construction schedule.
- D. If there is any dispute between the Landowner and the Company as to what areas need to be ripped, the depth at which compacted areas should be ripped, or the necessity or rates of lime and fertilizer application, the appropriate county Soil and Water Conservation District's opinion shall be considered by the Company and the Landowner.

8. Land Leveling

- A. Following the completion of the pipeline, the Company will restore any right-of-way to its original pre-construction elevation and contour should uneven settling occur or surface drainage problems develop as a result of pipeline construction.
- B. The Company will provide the Landowners with a telephone number and address that may be used to alert the Company of the need to perform additional land leveling services.
- C. If, in the future, uneven settling occurs or surface drainage problems develop as a result of the pipeline construction, the Company will provide such land leveling services within 45 days of a Landowner's written notice, weather and soil conditions permitting or at a time agreed upon by the Landowner and the Company.
- D. If there is any dispute between the Landowner and the Company as to what areas need additional land leveling beyond that which is done at the time of

construction, it shall be the Company's responsibility to disprove the Landowner's claim that additional land leveling is warranted.

9. Backfill Profile and Trench Crowning

- A. In all agricultural land areas, trench crowning shall occur during the trench backfilling operation using subsoil materials over the trench to allow for trench settling, to be followed by topsoil replacement. Due to the increased elevation of the crown compared to the rest of the right-of-way, surface drainage across the trench may be hindered until the crown has settled completely.
- B. Surface drainage should not be permanently blocked or hindered in any way. If excess soil is encountered, it will be removed offsite to prevent ridging, unless the Landowner and the Company agree otherwise. Adding additional soil to the crown over the trench in excess of that required for settlement will not be permitted. In areas where minor trench settling occurs after topsoil spreading, land leveling or imported topsoil shall be used to fill each depression. In areas where major trench settling occurs after topsoil spreading, and land leveling cannot be utilized; imported topsoil shall be used to fill each depression of significant depth. Topsoil from the adjacent agricultural land outside of the construction footprint shall not be used to fill the depressions.
- C. In agricultural areas where the materials excavated during trenching are insufficient in quantity to meet backfill requirements, the soil of any agricultural land adjacent to the trench and construction zone shall not be used as either backfill or surface cover material. Under no circumstances shall any topsoil materials be used for pipe padding material or trench backfill. In situations where imported soil materials are employed for backfill on agricultural lands, such material shall be of similar texture and quality to the existing soils on site. Imported soils should be free from noxious weeds and other pests to the extent possible.

10. Prevention of Soil Erosion

- A. The Company will work with Landowners to prevent excessive erosion on right-of-way that has been disturbed by construction. Reasonable methods will be implemented to control erosion. This is not a requirement, however, if the land across which the pipeline is constructed is bare cropland that the Landowner intends to leave bare until the next crop is planted. The Company may elect to plant a temporary cover crop on active cropland, if approved by the Landowner.
- B. If the Landowner and Company cannot agree upon a reasonable method to control erosion on the right-of-way, the recommendations of the appropriate county Soil and Water Conservation District (if available) shall be considered by the Company and the Landowner.

11. Repair of Damaged Soil Conservation Practices

All soil conservation practices (such as terraces, grassed waterways, etc.), which are damaged by the pipeline's construction, will be restored to their pre-construction condition as practical in consultation with the local Soil and Water Conservation District.

- A. The Company will repair or pay the landowner to repair any soil conservation practices (such as terraces, grassed waterways, etc.), which are damaged by the pipeline's construction.
- B. If the Company is responsible for repairing any damaged soil conservation practices, the repairs will be made in accordance with the specifications of the county Soil and Water Conservation Districts.
- C. The work set forth in this section will be done within 45 days, weather and landowner permitting, after the pipeline has been constructed.

12. Construction During Wet Weather

The Chief Inspector and Environmental Inspector, in consultation with the Agricultural Inspector, will determine when construction should not proceed in a given area due to wet weather conditions. The following are the factors to be considered in determining whether construction will be allowed to continue due to wet weather conditions:

- A. Work will not be allowed in areas where rutting is mixing subsoil with topsoil. The depth of the allowable rutting is dependent on the depth of topsoil in a given location.
- B. In areas where rutting will result in topsoil/subsoil mixing, alternatives such as utilizing mats, low ground pressure equipment, and/or flat bottom sleds pulled by low ground pressure equipment, disking the right-of-way to increase evaporation and dewatering the area with portable pumps may also be acceptable.
- C. Wet weather restrictions only apply to those areas necessary and may not require cessation of work in areas not affected by wet weather.

13. Damages to Private Property

- A. The Company will reasonably compensate Landowners for any construction-related damages caused by the Company that occur on or off of the established pipeline right-of-way.
- B. Compensation for damages to private property caused by the Company shall extend beyond the initial construction of the pipeline, to include those damages caused by the Company during future construction, operation, maintenance, and repairs relating to the pipeline.
- C. Payment by the Company to the Landowner will be made within 45 days from the time of occurrence.

14. Clearing of Trees and Brush from the Easement

- A. If trees are to be removed from the right-of-way, the Company will consult with the Landowner to determine if there are trees of commercial or other value to the Landowner.
- B. If there are trees of commercial or other value to the Landowner, the Company will allow the Landowner the right to retain ownership of the trees with the

disposition of the trees to be negotiated prior to the commencement of land clearing. However, in no event will any trees be left on or adjacent to the ROW. All trees and debris must be removed from the ROW.

- C. Unless otherwise restricted by federal, state or local regulations, the Company will follow the Landowners desires regarding the removal and disposal of trees, brush, and stumps of no value to the Landowner by burning, burial, etc., or complete removal from any affected property.

15. Interference with Irrigation Systems

- A. If the pipeline and/or temporary work areas intersect an operational (or soon to be operational) spray irrigation system, the Company will establish with the Landowner an acceptable amount of time the irrigation system may be out of service.
- B. If, as a result of pipeline construction activities, an irrigation system interruption results in crop damages, either on the pipeline right-of-way or off the right-of-way, the Landowner will be reasonably compensated for such crop damages that are attributed to the system interruption.
- C. If it is feasible and mutually acceptable to the Company and the Landowner, temporary measures will be implemented to allow an irrigation system to continue to operate across land on which the pipeline is also being constructed.

16. Ingress and Egress Routes

Prior to the pipeline's installation, the Company and the Landowner will reach a mutually acceptable agreement on the route that will be utilized for entering and leaving the pipeline right-of-way should access to the right-of-way not be practical or feasible from adjacent segments of the pipeline right-of-way or from public highway or (if available to Company) railroad right-of-way.

17. Temporary Roads

- A. The location of temporary roads to be used for construction purposes will be negotiated with the Landowner.
- B. The temporary roads will be designed to not impede surface drainage and will be built to minimize soil erosion on or near the temporary roads.
- C. Upon abandonment, temporary roads may be left intact through mutual agreement of the Landowner and the Company unless otherwise restricted by federal, state, or local regulations.
- D. If the temporary roads are to be removed, the rights-of-way upon which the temporary roads are constructed will be returned to their previous use(s) and restored to equivalent condition(s) as existed prior to their construction. All temporary access roads that are removed shall be ripped to a depth of 18 inches. All ripping will be done consistent with Section 7.

18. Weed Control

- A. On any right-of-way over which the Company has jurisdiction as to its surface use, (i.e., valve sites, metering stations, compression stations, etc.), the Company will provide for weed control in a manner that prevents the spread of weeds onto adjacent lands used for agricultural purposes. Spraying will be done

by a pesticide applicator that is appropriately licensed for doing such work in the State of Illinois.

- B. Should the Company fail to control weeds after being given written notice and a 45-day opportunity to respond, the Company will be responsible for reimbursing all reasonable costs for weed control incurred by owners of land adjacent to surface facilities when the land accommodating the pipeline surface facility is determined to be the weed source.

19. Pumping of Water from Open Trenches

- A. In the event it becomes necessary to pump water from open trenches, the Company will pump the water in a manner that will avoid damaging adjacent agricultural land, crops, and/or pasture. Such damages include, but are not limited to, inundation of crops for more than 24 hours, deposition of sediment in ditches and other water courses, and the deposition of subsoil sediment and gravel in fields and pastures.
- B. If it is impossible to avoid water-related damages as described in Item 19.A. above, the Company will reasonably compensate the Landowner for the damages or will correct the damages so as to restore the land, crops, pasture, water courses, etc. to their pre-construction condition.
- C. All pumping of water shall comply with existing drainage laws, local ordinances relating to such activities, and provisions of the Clean Water Act.

20. Aboveground Facilities

Locations for aboveground facilities shall be selected in a manner so as to be as unobtrusive as reasonably possible to ongoing agricultural activities occurring on the land adjacent to the facilities. First priority shall be made to locating aboveground facilities on right-of-way that is not used as cropland. If this is not feasible, such facilities shall be located so as to incur the least hindrance to the adjacent cropping operations (i.e., located in field corners or areas where at least one side is not used for cropping purposes).

21. Advance Notice of Access to Private Property

- A. Except in the event of an emergency, the Company will provide the Landowner or Tenant with a minimum of 24 hours prior notice before accessing his/her property for the purpose of constructing the pipeline.
- B. Prior notice shall first consist of a personal contact or a telephone contact, whereby the Landowner or Tenant is informed of the Company's intent to access the land. If the Landowner or Tenant cannot be reached in person or by telephone, the Company will mail or hand deliver to the Landowner or Tenant's home a dated, certified letter of the Company's intent. The Landowner or Tenant need not acknowledge receipt of the written notice before the Company can enter the Landowner's property.

22. Reporting of Inferior Agricultural Impact Mitigation Work

No later than 45 days prior to the commencement of the pipeline construction across a Landowner's property, the Company will provide the Landowner with a toll-free number the Landowner can call to alert the Company should the Landowners observe inferior

agricultural impact mitigation work which is being done or has been carried out on his/her property.

23. Indemnification

The Company will indemnify all Landowners and farm Tenants of agricultural land upon which such pipeline is installed, their heirs, successors, legal representatives, assigns (collectively "Indemnitees"), from and against all claims by third parties and losses incurred thereby, and reasonable expenses, resulting from or arising out of personal injury, death, injury to property, or other damages or liabilities of any sort related to the design, laying, maintenance, removal, repair, use of such pipeline, whether heretofore or hereafter laid, including damages caused by such pipeline or any of its appurtenances and the leaking of its contents, except where claims, injuries, suits, damages, costs, losses, and expenses are caused by the negligence or intentional acts, or willful omissions of such Indemnitees provided further that such Indemnitees shall tender any such claim as soon as possible upon receipt of notice thereof to the Company.

24. General Monitoring and Remediation

The Agreement establishes construction and restoration guidelines to limit adverse effects to agricultural resources and to return the affected lands to productive agricultural use with a level of production consistent with that of the lands immediately adjacent to the Right-of-Way. Post construction and restoration situations may occur as a result of the pipeline construction which requires further restoration of corrective activities. These areas potentially requiring further restoration or corrective activities will be brought to the Company's attention through Landowner or Tenant contacts with Company ROW staff or as result the Company's monitoring of the pipeline right-of-way. Dakota Access is committed to working with the landowner to ensure the pre-pipeline yields are similar to the post-pipeline yields, and we will continue to respond to the reasonable requests of the Landowner to correct and/or compensate for project related adverse effects on the agricultural resources.

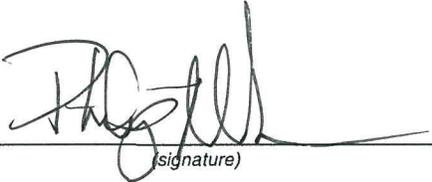
Concurrence of the Parties to this Agreement

The Illinois Department of Agriculture and Dakota Access, LLC (Dakota Access) concur that this Agreement is the complete Agreement governing the mitigation of agricultural impacts that may result from the construction of the pipeline in Hancock, Adams, Schuyler, Brown, Pike, Morgan, Scott, Macoupin, Montgomery, Bond, Fayette and Marion Counties within the State of Illinois.

The effective date of this Agreement commences on the date of execution.

**State of Illinois
DEPARTMENT OF AGRICULTURE**

DAKOTA ACCESS, LLC


(signature)

Philip Nelson, Director


(signature)

Joey Mahmoud, Sr., VP Engineering


(signature)

By Craig Sondgeroth, General Counsel

State Fairgrounds
801 Sangamon Avenue
Springfield, IL 62702

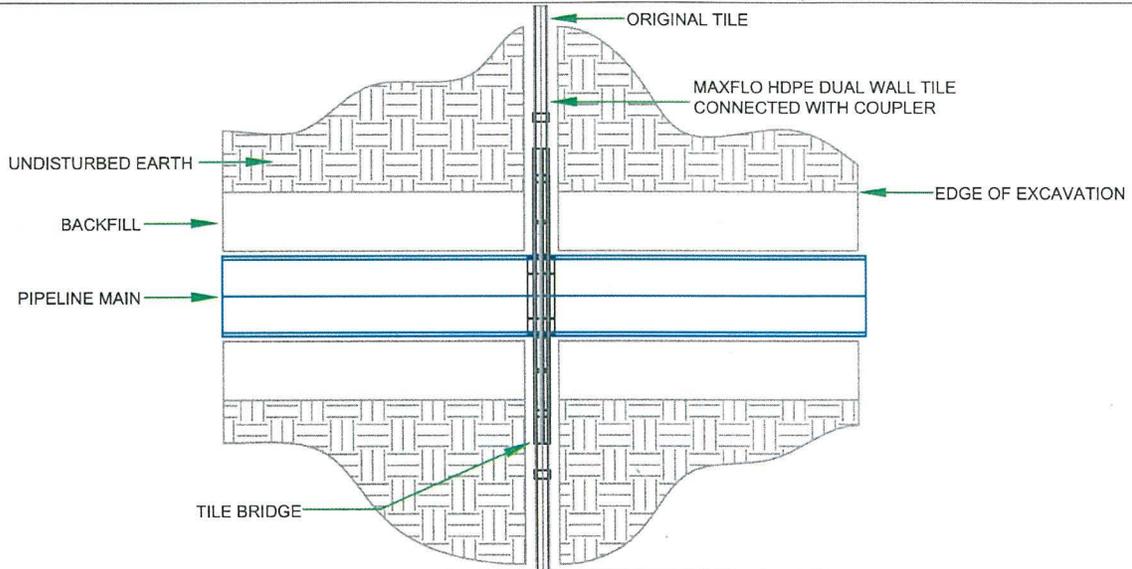
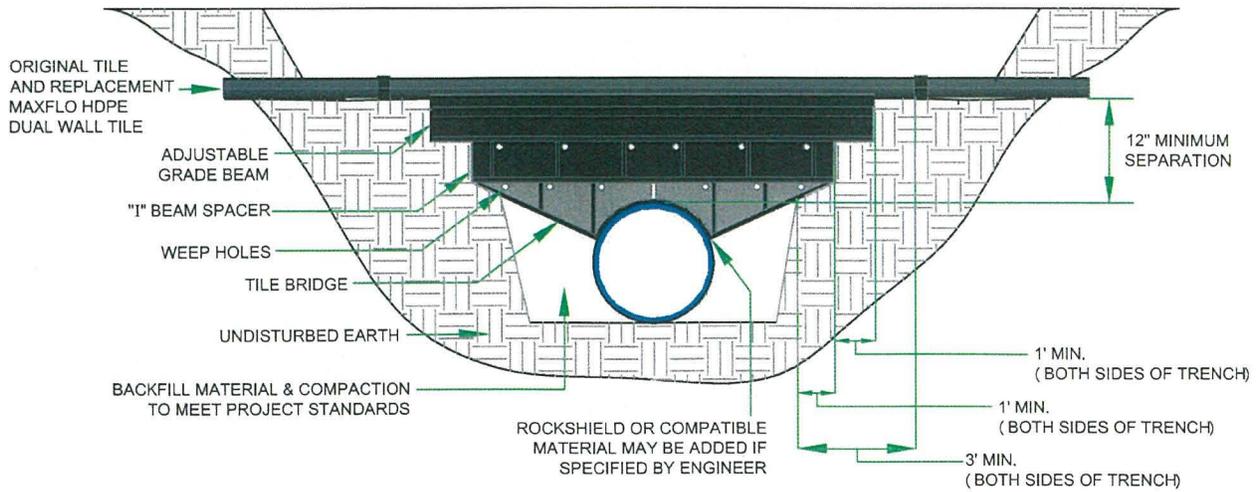
1300 Main St.
Houston, TX 77002

June 3, 2015

5/1, 2015



TILE BRIDGE – PERMANENT TILE REPAIR

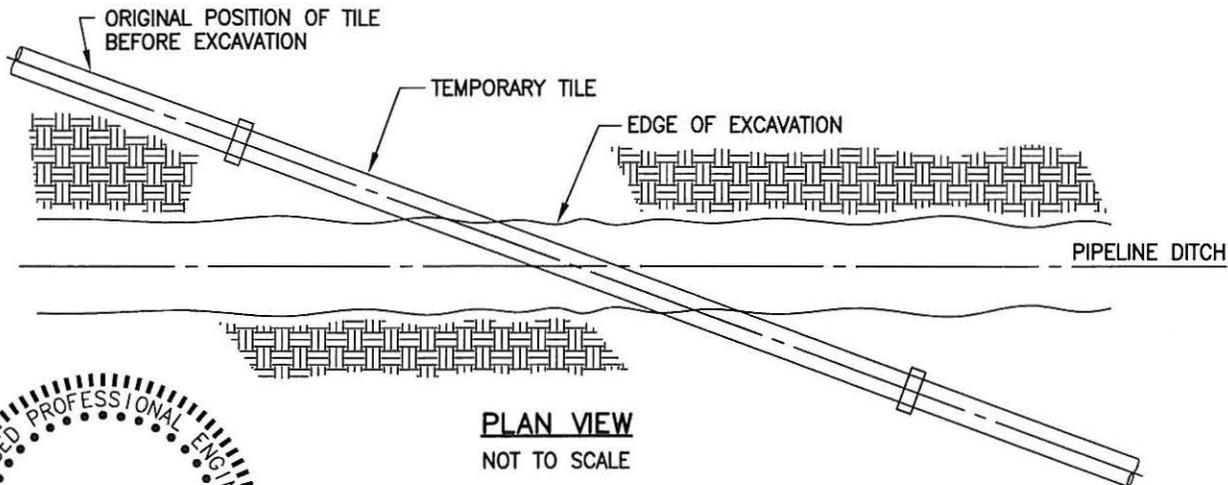


NOTES:

1. TILE REPAIR AND REPLACEMENT SHALL CROSS PERPENDICULAR TO THE PIPELINE WHILE MAINTAINING GRADIENT AND FLOW. WATER FLOW MUST BE EQUAL TO OR GREATER THAN ORIGINAL TILE CAPACITY. THE MINIMUM RECEIVING TILE SIZE REQUIRED FOR THE REPAIR SHALL BE 4" DUAL WALL WHEN CONNECTING TO 2", 3" OR 4" SINGLE WALL FIELD TILE AND 6" DUAL WALL WHEN CONNECTING TO 5" AND 6" SINGLE WALL FIELD TILE AND SO ON. ALL RECEIVING TILE SHALL BE DUAL WALL PERFORATED HDPE TUBING AND APPURTENANCES.
2. THE TILE BRIDGE SUPPORTING STRUCTURE SHALL PROVIDE A MINIMUM OF 1 LF SUPPORT INTO UNDISTURBED SOIL IN EACH TRENCH WALL. EACH ADDITIONAL SUPPORTING STRUCTURE SECTION SHALL ALSO PROVIDE A MINIMUM OF 1 LF SUPPORT INTO UNDISTURBED SOIL, INCLUDING ADJUSTABLE GRADE BEAM (WHICH INCLUDES "Y" SUPPORT STRUCTURE FOR PIPE) AND REPLACEMENT HDPE DUAL WALL. IN LOOSER, LESS STRUCTURED SOILS MORE PRONE TO SLOUGHING OFF, THESE SUPPORT DISTANCES MAY NEED TO BE INCREASED. REPLACEMENT HDPE DUAL WALL MAY BE ZIP TIED TO THE "Y" SECTION OF THE ADJUSTABLE GRADE BEAM. THE "Y" SECTION OF ADJUSTABLE GRADE BEAM SHALL SUPPORT HDPE DUAL WALL TO ASTM F449 STANDARDS. SPACER BEAMS MAY BE UTILIZED IF GREATER ELEVATION IS NEEDED BETWEEN THE TILE BRIDGE AND ADJUSTABLE GRADE BEAM TO MAINTAIN PROPER LINE AND GRADE. IF OVER DIGGING INTO THE UNDISTURBED SOIL INTENDED TO SUPPORT THE STRUCTURE OCCURS DURING INSTALLATION OF THE SUPPORTING STRUCTURE, THIS OVER DIG MAY BE FILLED WITH SAND FILLED BAGS PROVIDED THEY FIRMLY ABUT ADDITIONAL BAGS AND THE SIDEWALL OF THE TRENCH. IF THE TILE MUST BE RELOCATED, THE INSTALLATION ANGLE SHALL BE PERPENDICULAR TO THE PIPELINE DIRECTION.
3. THE DRAIN TILE REPAIR SECTION WILL BE PERMANENTLY CONNECTED TO THE EXISTING DRAIN TILE A MINIMUM OF 1 LF OUTSIDE OF THE UPPERMOST SUPPORTING STRUCTURE USING INDUSTRY STANDARDS TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES.
4. OTHER METHODS OF PERMANENT DRAIN TILE REPAIR SUPPORTS MAY BE USED IF THE PROPOSED METHOD IS OF EQUAL OR GREATER STRENGTH THAN DETAILED ABOVE. ANY ALTERNATE METHODS, INCLUDING "TIE IN" AREAS OR OTHER AREAS REQUIRING LONGER SPANS OF SUPPORT, SHALL CONTAIN ADEQUATE AND CONTINUOUS METHODS OF SUPPORT FROM UNDISTURBED TRENCH BOTTOM SOIL VERTICALLY TO THE SUPPORT STRUCTURE AND THROUGHOUT ITS LENGTH. ALTERNATE SUPPORTS SHALL BE APPROVED BY COMPANY REPRESENTATIVES AND LAND OWNERS IN ADVANCE.
5. ALL MATERIALS SHALL BE FURNISHED BY THE PROJECT OWNER AND OR CONTRACTOR.
6. PRIOR TO REPAIRING TILE, CONTRACTOR SHALL PROBE LATERALLY INTO THE EXISTING TILE THE FULL WIDTH OF THE RIGHT OF WAY TO DETERMINE IF ADDITIONAL DAMAGE HAS OCCURRED. USE OF ACCEPTED VIDEO CAMERA EQUIPMENT FOR INTERNAL INSPECTION MAY ALSO BE CONSIDERED. ALL DAMAGED/DISTURBED TILE SHALL BE REPAIRED AS NEAR AS PRACTICABLE TO ITS ORIGINAL OR BETTER CONDITION.

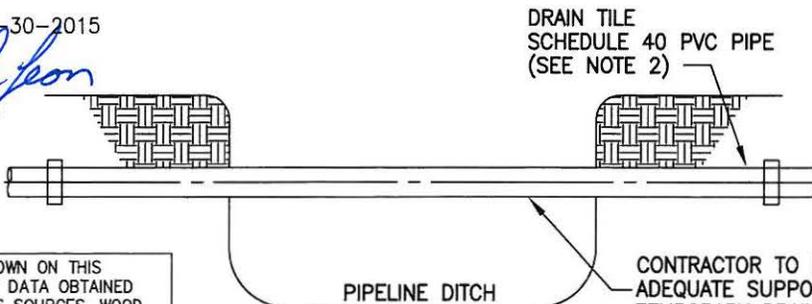
TILE BRIDGE
PERMANENT TILE REPAIR

DATE	2/25/2014
SCALE	HTS
SHEET	1 OF 1



LICENSE EXPIRES 11-30-2015

Jeffrey C. De Leon
4-30-15

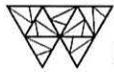


THE PIPELINE INFORMATION SHOWN ON THIS DRAWING IS A COMPILATION OF DATA OBTAINED FROM DRAWINGS FROM VARIOUS SOURCES. WOOD GROUP MUSTANG, INC. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND/OR CONFIRM THE LOCATIONS OF ALL UTILITIES AND PIPELINES PRIOR TO EXCAVATION.

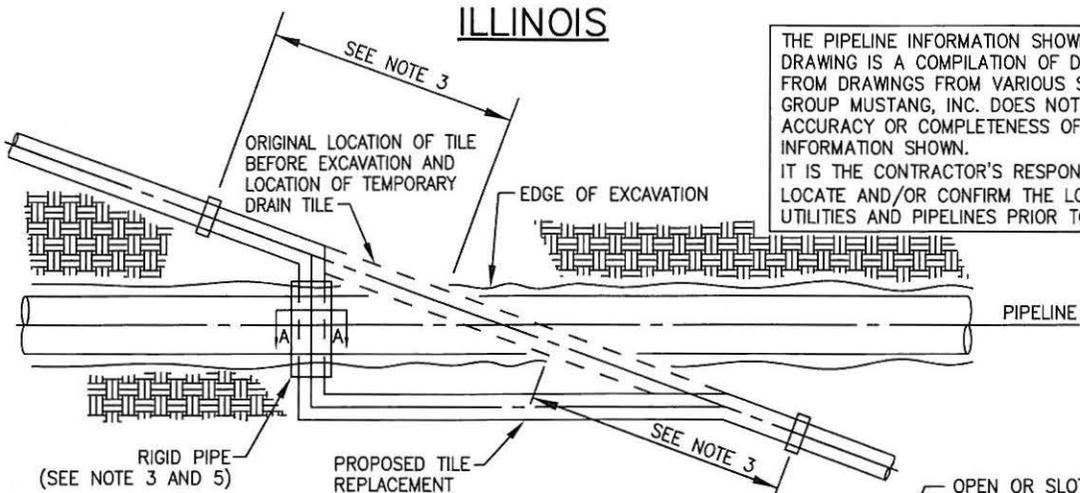
NOTES:

1. TEMPORARY TILE REPAIR AND REPLACEMENT SHALL MAINTAIN ORIGINAL ALIGNMENT GRADIENT AND WATER FLOW TO THE GREATEST EXTENT POSSIBLE.
2. TEMPORARY DRAIN TILE TO BE SIZED TO MAINTAIN ADEQUATE FLOW AND CONNECTED TO EXISTING DRAIN TILES.
3. PRIOR TO REPAIRING TILE, CONTRACTOR SHALL SWAB Laterally INTO THE EXISTING TILE TO FULL WIDTH OF THE RIGHTS OF WAY TO DETERMINE IF ADDITIONAL DAMAGE HAS OCCURRED.
4. SCREENS TO BE INSTALLED AT ENDS OF EXISTING DRAIN TILES PRIOR TO TEMPORARY DRAIN TILE REPAIR.

FILE: R:\Projects\103957\DISCIPLINE\CAD\DRAWINGS\99-TYPICAL\ILLINOIS\10395700-ILC-P12-1_REV B.dwg PLOT DATE: 4/30/2015 BY: ROBLEDO, RAMON

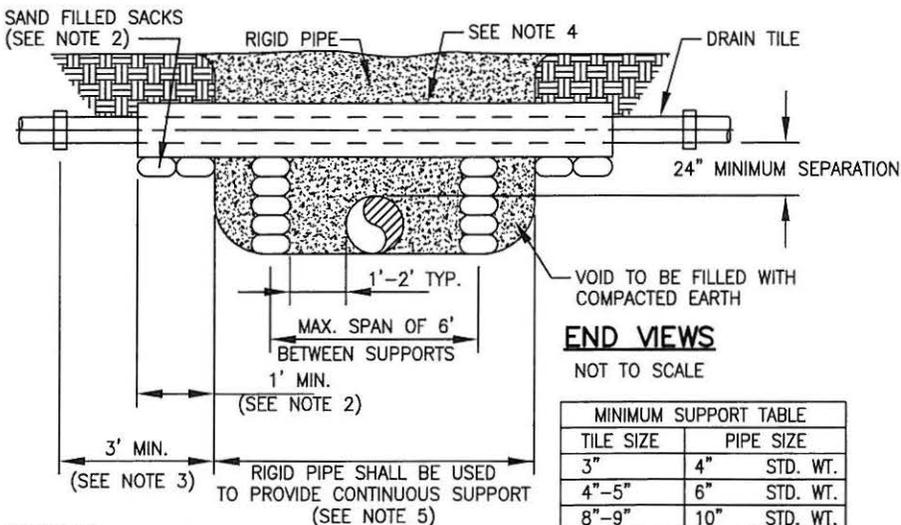
				 ENERGY TRANSFER CRUDE OIL COMPANY, LLC DAKOTA ACCESS, LLC	
B	4/30/15	RER	ISSUED FOR AIMA		
A	4/28/15	RER	ISSUED FOR AIMA		
REV.	DATE	BY	DESCRIPTION	CHK.	
PROJECT NO.			10395700		
			WOOD GROUP MUSTANG, INC. ILLINOIS REGISTERED ENGINEERING FIRM 184006650		
DRAWN BY: RER		DATE: 4/28/15		DWG. NO.	
CHECKED BY:		DATE:		REV.	
SCALE: N.T.S.		APP.:		ILC-P12-1	
				TEMPORARY DRAIN TILE REPAIR B	

FILE: R:\Projects\10395700\DISCIPLINE\CAD\DRAWINGS\99--TYPICAL\ILLINOIS\10395700-P12-2_REV 2.dwg PLOT DATE: 4/27/2015 BY: ROBLEDO, RAMON



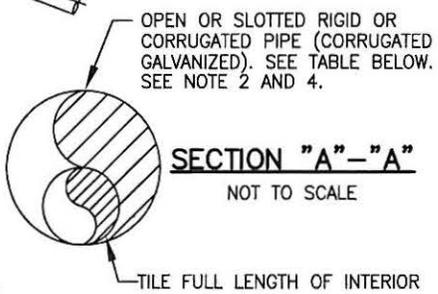
THE PIPELINE INFORMATION SHOWN ON THIS DRAWING IS A COMPILATION OF DATA OBTAINED FROM DRAWINGS FROM VARIOUS SOURCES. WOOD GROUP MUSTANG, INC. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND/OR CONFIRM THE LOCATIONS OF ALL UTILITIES AND PIPELINES PRIOR TO EXCAVATION.

PLAN VIEW
NOT TO SCALE



END VIEWS
NOT TO SCALE

MINIMUM SUPPORT TABLE		
TILE SIZE	PIPE SIZE	
3"	4"	STD. WT.
4"-5"	6"	STD. WT.
8"-9"	10"	STD. WT.
10"	12"	STD. WT.



LICENSED PROFESSIONAL ENGINEER
JEFFREY C. DE LEON
062.066873
OF ILLINOIS
LICENSE EXPIRES 11-30-2015
Jeffrey C. De Leon
4-27-15

NOTES:

- TILE REPAIR AND REPLACEMENT SHALL MAINTAIN ORIGINAL GRADIENT AND WATER FLOW TO THE GREATEST EXTENT POSSIBLE. IF THE TILE NEEDS TO BE RELOCATED, THE INSTALLATION ANGLE MAY VARY DUE TO SITE SPECIFIC CONDITIONS AND LANDOWNER RECOMMENDATIONS.
- 1'-0" MINIMUM LENGTH OF RIGID PIPE SHALL BE SUPPORTED BY UNDISTURBED SOIL, OR IF CROSSING IS NOT AT RIGHT ANGLES TO PIPELINE, EQUIVALENT LENGTH PERPENDICULAR TO TRENCH. SHIM WITH SAND BAGS ONLY TO UNDISTURBED SOIL FOR SUPPORT AND DRAINAGE GRADIENT MAINTENANCE (TYPICAL BOTH SIDES).
- DRAIN TILES WILL BE PERMANENTLY CONNECTED TO EXISTING DRAIN TILES A MINIMUM OF THREE FEET OUTSIDE OF EXCAVATED TRENCH LINE USING INDUSTRY STANDARDS TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES INCLUDING SLIP COUPLINGS.
- DIAMETER OF RIGID PIPE SHALL BE OF ADEQUATE SIZE TO ALLOW FOR THE INSTALLATION OF THE TILE FOR THE FULL LENGTH OF THE RIGID PIPE.
- OTHER METHODS OF SUPPORTING DRAIN TILE MAY BE USED IF ALTERNATE PROPOSED IS EQUIVALENT IN STRENGTH AND IF APPROVED BY COMPANY REPRESENTATIVES AND LANDOWNER IN ADVANCE. SITE SPECIFIC ALTERNATE SUPPORT SYSTEM TO BE DEVELOPED BY COMPANY REPRESENTATIVES AND FURNISHED TO CONTRACTOR FOR SPANS IN EXCESS OF 20', TILE GREATER THAN 10" DIAMETER, AND FOR "HEADER" SYSTEMS.
- ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.
- PRIOR TO REPAIRING TILE, CONTRACTOR SHALL SWAB Laterally INTO THE EXISTING TILE TO FULL WIDTH OF THE RIGHTS OF WAY TO DETERMINE IF ADDITIONAL DAMAGE HAS OCCURRED. ALL DAMAGED/DISTURBED TILE SHALL BE REPAIRED AS NEAR AS PRACTICABLE TO ITS ORIGINAL OR BETTER CONDITION.
- THE REPLACEMENT TILE WILL BE MODIFIED TO CROSS THE PIPELINE AS CLOSE TO A 90 DEGREE ANGLE UNLESS OTHERWISE APPROVED BY LANDOWNER.

REV.	DATE	BY	DESCRIPTION	CHK.
2	4/27/15	RER	ISSUE FOR ILLINOIS AIMA	JCD
1	3/26/15	RER	ISSUE FOR ILLINOIS AIMA	JCD

ENERGY TRANSFER CRUDE OIL COMPANY, LLC
DAKOTA ACCESS, LLC

TYPICAL CONSTRUCTION
PERMANENT DRAIN TILE REPAIR

PROJECT NO. 10395700

WOOD GROUP MUSTANG, INC.
ILLINOIS REGISTERED ENGINEERING FIRM 184006650

DRAWN BY: RER	DATE: 3/23/15	DWG. NO.	REV.
CHECKED BY: JCD	DATE: 3/23/15	ILD-P12-2	2
SCALE: N.T.S.	APP.:		

Appendix A.

Guidelines for Conducting Proper and Successful Decompaction

1. Decompaction is required when all three conditions apply.
 - A. the area has been trafficked or traversed by vehicles or construction equipment;
 - B. the soil penetrometer readings are 300 psi or greater; and
 - C. the soil strength (psi) in the right-of-way area is greater than that of the non-trafficked area.
2. An Environmental and/or Agricultural Inspector, with experience and training in the proper identification of compacted soil and operation methods of deep decompaction tools is required to observe the daily operation of the ripper/subsoiler to ensure the conditions are appropriate for decompaction efforts and that the proper equipment is utilized and that equipment is set-up and operated correctly.
3. To achieve the most effective shatter of the compacted soil the following guidelines have been established:
 - A. Conduct ripping when the soil is dry. Follow the "Soil Plasticity Test Procedures" detailed in Appendix B to determine if soil conditions are adequately dry to conduct decompaction efforts.
 - B. Deep ripping shall be conducted using a ripper or subsoiling tool with a shank length of no less than 18 inches and a shank spacing of approximately the same measurement as the shank length.
 - C. Use a ripper with a knife length 2 inches longer than the desired depth of decompaction. (32" maximum ripper blade length)
 - D. To best promote revegetation and restore crop production, a total depth of 30 or more inches of soil (topsoil plus subsoil) is required.
 - E. The minimum depths of decompaction stated above in 3.D. are required where possible. A safe distance from sub-surface structures (tile drains, pipelines, buried utilities, bedrock, etc.) must be maintained at all times. Where such structures exist, a lesser depth of decompaction will be required to prevent damage to equipment and the structures as well as to maintain a safe work environment. The allowable decompaction depth in these instances will be determined on a site by site basis.
 - F. When the knives are in the soil to the desired depth the tongue of the ripper should be parallel to the surface of the ground.
 - G. Select a tractor that has enough horsepower to pull the ripper at a speed of 1.5 to 2 mph and whose footprint is of equal or lesser width than the ripper. Tracked equipment is preferred and typically required to achieve this criteria.
 - H. The ripper shanks should not create ruts, channels, or mixing of the sub-soil with topsoil. A speed of 1.5 to 2 mph is recommended to minimize the risk of rutting and soil mixing. The ideal operating speed can vary with soil characteristics, tractor and ripping tool used. An excessive travel speed will often increase mixing of soil horizons.
 - I. When the equipment is set up and operated correctly, the ripper should create a wave across the surface of the ground as it lifts and drops the soil.

- J. Make one ripping pass through the compacted area. Using a penetrometer, the AI will measure the PSI between the ripped knife tracks to determine if the single ripping pass was successful. Additional passes should only be used where needed as they may reduce the effectiveness of the ripping by re-compacting the soil shattered in the previous pass.
- K. If the first pass does not successfully decompact the soil, additional passes will be needed. Should multiple passes of the ripper be needed to achieve decompaction between the knife tracks of the ripping tool, the subsequent passes should be positioned so the knife tracks from the previous pass are split by the second pass. If three or more passes have been made and sufficient decompaction has not yet been achieved the AI may choose to halt further decompaction efforts in that area until conditions improve or better methods are determined.
- L. Following ripping, all stone and rock three or more inches in size which has been lifted to the surface shall be collected and removed from agricultural areas.
- M. After ripping has been conducted, do not allow unnecessary traffic on the ripped area.
- N. In agricultural lands and croplands that will not be replanted to vegetation by the Company, recommend to landowners to plant a deep rooted crop (e.g., alfalfa) following decompaction. Reduced compaction created by the ripper pass will not remain over time without subsequent root penetration. Root penetration into the shattered soil is necessary to establish permanent stabilized channels to conduct air and water into the soil profile.

010615

Appendix B.

Soil Plasticity Test Procedures

The Agricultural Inspector will test the consistency of the surface soil to a depth of approximately 4 to 8 inches using the Field Plasticity Test procedure developed from the *Annual Book of ASTM Standards, Plastic Limit of Soils* (ASTM D-4318).

1. Pull a soil plug from the area to be tilled, moved, or trafficked to a depth of 4-8 inches.
2. Roll a portion of the sample between the palms of the hands to form a wire with a diameter of one-eighth inch.
3. The soil consistency is:
 - A. Tillable (able to be worked) if the soil wire breaks into segments not exceeding 3/8 of an inch in length.
 - B. Plastic (not tillable) if the segments are longer than 3/8 of an inch before breaking.
4. This Procedure is to be used to aid in determining when soil conditions are dry enough for construction activities to precede.
5. Once the soil consistency has been determined to be of adequate dryness, the plasticity test is not required again until the next precipitation event.

010615