

(Drafted by & when filed return to: Magellan Pipeline Company, L.P., P. O. Box 22186, MD 27-4 (S. Guthrie), Tulsa, Oklahoma 74121-2186, 918/574-7350.)

## **ENCROACHMENT AGREEMENT**

This Encroachment Agreement ("**Agreement**") is made and entered into by and between Magellan Pipeline Company, L.P., a Delaware limited partnership, whose address is P.O. Box 22186, Tulsa, Oklahoma, 74121-2186, (hereinafter called "**Magellan**"), and The City of Lawrence, Kansas, a municipal corporation, whose mailing address is 6 East 6<sup>th</sup> Street, Post Office Box 708, Lawrence, Kansas 66044-0708, its successors, assigns and grantees (hereinafter called "**Owner**").

### **WITNESSETH:**

WHEREAS, **Owner** represents and warrants that it is the fee simple owner of the real property known as the Lawrence Municipal Airport, located in the East Half of the NW/4 of Section 17, Township 12 South, Range 20 East, Douglas County, Kansas; and

WHEREAS, **Magellan** is the owner of certain pipelines, pipeline facilities and appurtenances (hereinafter referred to as the "**Magellan Facilities**") and easement rights therefor, (hereinafter referred to as the "**Easement**", whether or not rights were granted in one or more documents or acquired by operation of law). For purposes of this **Agreement** only, "**Magellan's Easement Tract**" shall be considered to be any area within Fifty (50) feet of any **Magellan Facilities**, unless a different right of way tract width is specifically described in the **Easement**, in which case such specified width shall define **Magellan's Easement Tract**. The land referenced in the **Easement** includes the North Half of Section 17, Township 12 South, Range 20 East, Douglas County, Kansas, pursuant to that certain instrument recorded in the records of said county and state and described as follows:

- 1) Right of Way Agreement as to a pipe line or pipe lines dated January 4, 1955, from The State Board of Regents for The University of Kansas, acting through Karl Klooz, Bursar, Lawrence, Kansas, in favor of Great Lakes Pipe Line Company (Magellan's predecessor in title), its successors and assigns, and filed for record in Book 187 at Page 320; and

WHEREAS, for the purposes of this **Agreement** an "**Encroachment**" is defined as any use of the land within **Magellan's Easement Tract** by someone other than **Magellan**, which could interfere with **Magellan's Easement** rights or could create safety concerns related to **Magellan's Facilities** as more fully described in **Magellan's General Encroachment Requirements** as set forth in attached **Exhibit "A"** and incorporated herein by reference. **Magellan does not permit or authorize any Encroachments unless specifically approved in a written agreement identifying all "Approved Encroachments"; and**

WHEREAS, **Owner** desires to obtain **Magellan's** consent for one or more **Encroachments** on **Magellan's Easement Tract**;

NOW, THEREFORE, in consideration of the covenants and agreements herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, **Magellan**, subject to the following terms and provisions, hereby consents to the **Encroachments** listed below as "**Approved Encroachments**" described and limited pursuant to the following specified plan drawings, which were furnished by **Owner** to **Magellan** ("**Plan Drawings**") and attached hereto as **Exhibit "B"**:

- 1) Grading and Drainage Plan Drawing, Sheet No. 8 on Project Number 3-20-0047-14 by Airport Development Group, dated April 2007.
- 2) Soil Test Information Drawing, Sheet No. 5 on Project Number 3-20-0047-14 by Airport Development Group, dated April 2007.

### **TERMS AND PROVISIONS**

1. **Approved Encroachments.** The **Approved Encroachments**, as further identified, described and limited in the **Plan Drawings** as set forth in **Exhibit "B"** are limited to the following:
  - (a) Grading for new ditch centerline – NE of Runway 15-33. Plans submitted to **Magellan** indicate the grading work to be minimal at this location. The final grade over **Magellan's Facilities** should be the same as it currently exists at this location. A company representative must be contacted to be present during the grading activity to confirm minimum clearances are met and **Magellan's Facilities** are not damaged.
  - (b) Grading for new ditch centerline – NE of Taxiway "A". This grading work will occur within **Magellan's Easement Tract** and over **Magellan's Facilities** in order to change the centerline of the ditch that runs parallel with Taxiway "A" to the northeast. This grading work would result in approximately five inches (5") of cover being left over **Magellan's Facilities** which is not acceptable. Therefore, **Owner** and **Magellan** will

enter into a Reimbursement Agreement which will address the lowering of **Magellan's Facilities** at this location to accommodate this encroachment. Until that Agreement is finalized no grading activity is to take place within **Magellan's Easement Tract** at this location.

2. **No Other Encroachments.** Except for the **Approved Encroachments** as allowed by this Agreement, **Owner** shall not create, erect, place or construct any other **Encroachment** on, above or below the surface of the ground on **Magellan's Easement Tract**, or change the grade or elevation of the ground surface within **Magellan's Easement Tract** or at any time plant or allow any trees thereon or cause or permit any of these to be done by others, without the express prior written permission of **Magellan**.
3. **Magellan On-Site Representative.** Exclusive of Saturday, Sunday, and legal holidays, **Owner** shall notify **Magellan** a minimum of 48 hours in advance of any **Encroachment** activities on **Magellan's Easement Tract** so that **Magellan** may arrange to have a representative present. At **Magellan's** option and at **Owner's** sole cost and expense, **Magellan's** representative may be on site during all **Encroachment** activities over or within ten feet (10') of the **Magellan Facilities** to confirm that no damage occurs to the **Magellan Facilities**. The presence of **Magellan's** representative or any verbal instructions given by such representative shall not relieve **Owner** of any liability under the **Easement** or this Agreement, and will not change the terms of the **Easement** or this Agreement, which may only be changed by written agreement by authorized representatives of **Owner** and **Magellan**. If pipeline, coating, cathodic protection and/or any other repair of **Magellan Facilities** is required by **Magellan** or if the safety of the **Magellan Facilities** is jeopardized, in **Magellan's** sole judgment, **Owner** shall stop all construction activities on **Magellan's Easement Tract** until said repairs are completed or until any unsafe construction practices are resolved to the satisfaction of **Magellan's** on-site representative. Written notification of such construction activity shall be made to **MAGELLAN PIPELINE COMPANY, Donny Vaughan, Damage Prevention & Maintenance Operator, 401 E. Donovan Road, Kansas City, KS 66115, Office:(913) 647-8423, Cell: (816) 289-1719, Fax: (913) 647-8459**, or such other representative of **Magellan**, which **Magellan** may from time to time designate.
4. **Protection of Magellan Facilities.** **Owner** shall protect the **Magellan Facilities** if excavating and backfilling become necessary within **Magellan's Easement Tract**. If excavating within 2 feet of any **Magellan** pipeline or when otherwise deemed necessary by **Magellan's** on-site representative, **Owner** shall perform any necessary digging or excavation operations by hand digging. **Owner** shall reimburse **Magellan** for all costs of having a representative of **Magellan** on-site during construction activities related to the **Approved Encroachments**.

In consideration of heavy equipment crossings pipeline stress calculations were done based on a maximum loaded vehicle weight of 80,000 lbs. A minimum of 5' of cover is needed to

ensure safe pipeline crossing during construction. A **Magellan** field representative will need to be present to verify the pipeline depth of cover prior to allowing equipment to cross.

If equipment heavier than what is specified will need to cross **Magellan's Easement Tract**, detailed information will need to be received in order to perform pipe stress calculations. The following information will need to be received to perform a more thorough analysis of wheeled vehicles: loaded vehicle weight, number of axles on the front and rear, weight distribution between the front and rear axles. For equipment on tracks, the following information is needed: loaded vehicle weight, length of track in contact with the ground and track width. Equipment heavier than 80,000 lbs will not be allowed to cross the pipeline without further evaluation of the pipeline stresses.

5. **Breach.** If either **Owner** or **Magellan** breaches this **Agreement** and the non-breaching party commences litigation to enforce any provisions of this **Agreement**, the reasonable cost of attorneys' fees and expenses will be payable to the non-breaching party by the breaching party upon demand, for all claims upon which the non-breaching party prevails.
6. **Insurance.** **Owner** shall procure or cause its contractors and subcontractors to procure and maintain in force throughout the entire term of this **Agreement** insurance coverage described below with insurance companies acceptable to **Magellan** for work performed related to the construction of the **Approved Encroachments**. All costs and deductible amounts will be for the sole account of the **Owner** or its contractors and subcontractors. Prior to commencing any activities related to the construction of the **Approved Encroachments**, the **Owner** must deliver to **Magellan** certificate(s) of insurance. Non-renewal or cancellation of policies must be effective only after **Magellan** receives written notice from the insurance company thirty (30) days in advance of such non-renewal or cancellation. The limits set forth below are minimum limits and will not be construed to limit the **Owner's** liability:
  - (a) Workers' Compensation insurance complying with the laws of the State or States having jurisdiction over each employee and Employer's Liability insurance with limits of \$1,000,000.
  - (b) Commercial or Comprehensive General Liability insurance on an occurrence form with a combined single limit of \$5,000,000 each occurrence and project specific annual aggregates of \$5,000,000. Coverage must include premises/operations, independent contractors, blanket contractual liability, and products/completed operations coverage, broad form property damage, personal injury, and sudden and accidental pollution; such coverage must be maintained for two (2) years following completion of work activities related to the construction of the **Approved Encroachments**. **Magellan**, its affiliated companies, and its and their respective directors, officers, partners, members, shareholders, employees, agents and contractors shall be included as additional insureds.

- (c) In each of the above policies, the **Owner** or its contractors and subcontractors agrees to waive and will require its insurers to waive any rights of subrogation or recovery either may have against **Magellan** and its affiliated companies.
  - (d) Regardless of the insurance requirements above, the insolvency, bankruptcy, or failure of any such insurance company providing insurance for the **Owner** or its contractors and subcontractors, or the failure of any such insurance company to pay claims that occur, such requirements, insolvency, bankruptcy or failure will not be held to waive any of the provisions hereof.
  - (e) In the event of a loss or claim arising out of or in connection with the construction of the **Approved Encroachments**, the **Owner** agrees, upon request of **Magellan**, to submit a certified copy of its insurance policies for inspection by **Magellan**.
  - (f) The **Owner** shall require all of its contractors and subcontractors for work related to the construction of the **Approved Encroachments** to provide adequate insurance coverage, all to be endorsed with the Waiver of Subrogation wording referenced in Section (c) above; any deficiency in the coverage, policy limits, or endorsements of said contractors and subcontractors, shall be the sole responsibility of the **Owner**.
7. **Indemnification.** **Owner** will indemnify, save, and hold harmless **Magellan**, its affiliated companies, directors, officers, partners, employees, agents and contractors from any and all environmental and non-environmental liabilities, losses, costs, damages, expenses, fees (including reasonable attorneys' fees), fines, penalties, claims, demands, causes of action, proceedings (including administrative proceedings), judgments, decrees and orders resulting from **Owner's** breach of this **Agreement** or caused by or as a result of the construction, use, maintenance, existence or removal of the **Approved Encroachments** or **Other Encroachments** located on the **Magellan Easement Tract**. The presence of **Magellan's** representative or any instructions given by such representative will not relieve **Owner** of any liability under this **Agreement**, except to the extent that such liability results from **Magellan's** or its representative's gross negligence or willful misconduct.
8. **Damage or Loss.** **Owner** covenants that:
- (a) If at any time, in the sole opinion of **Magellan**, it becomes necessary for **Magellan**, to cross, occupy, utilize, move or remove all or portions of the **Approved Encroachments** placed on **Magellan's Easement Tract** or constructed pursuant to this **Agreement**, for any purpose, including but not limited to surveying, constructing new facilities, maintaining, inspecting, operating, protecting, repairing, replacing, removing or changing the size of a pipeline(s) and appurtenances on **Magellan's Easement Tract** and such activities by **Magellan** result in damage to or destruction of the **Approved Encroachments**, then repair, replacement or restoration of such **Approved Encroachments** shall be at the sole cost and responsibility of **Owner**.

- (b) If at any time, any encroachments belonging to or permitted by **Owner** which are not authorized by this or another written agreement ("**Other Encroachments**") are found to be on **Magellan's Easement Tract**, **Magellan** may at any time request **Owner** to remove such **Other Encroachments**, and if **Owner** refuses or fails to do so within a reasonable time, **Magellan's** may remove them from **Magellan's Easement Tract** to **Owner's Land** at **Owner's** expense, unless they are allowed to remain by a written agreement between **Magellan** and **Owner**. Should such removal activities by **Magellan** result in damage to or destruction of the **Other Encroachments**, then repair, replacement or restoration of such **Other Encroachments** shall be at the sole cost and responsibility of **Owner**, and such **Other Encroachments** may not be repaired, replaced or rebuilt on **Magellan's Easement Tract** without a written agreement between **Magellan** and **Owner**.
- (c) If during the exercise of the rights granted by the **Easement** or by this **Agreement**, the **Approved Encroachments** and **Other Encroachments**, if any, are damaged, destroyed or suffer loss of value, **Owner** agrees to release **Magellan**, its affiliates, and its and their respective directors, officers, members, partners, shareholders, employees, agents and contractors from and against any and all liabilities, and damages or losses which may arise as a result of the damage to or loss of use of the **Approved Encroachments** and **Other Encroachments**, if any, caused by **Magellan**, its employees, agents and contractors.
9. **Magellan Rights.** **Magellan** and **Owner** agree that the existence of the **Approved Encroachments** or this **Agreement** does not constitute a waiver of **Magellan's** rights under the **Easement**. **Magellan** hereby reserves and **Owner** hereby grants and confirms all of **Magellan's** rights, title and estate as set forth in the **Easement**.
10. The terms and conditions of this **Agreement** will constitute covenants running with the land and be binding upon and inure to the benefit of the parties hereto, their successors, assigns and grantees. This **Agreement** may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument. This **Agreement** shall become effective upon its complete execution by the parties hereto.

IN WITNESS WHEREOF, the parties have set their hands on the dates expressed below.

**MAGELLAN PIPELINE COMPANY, L.P.**

By Its General Partner, Magellan Pipeline GP, LLC

By Its Undersigned Authorized Signatory:

By: \_\_\_\_\_

**Bill Klein**

**Supervisor, Real Estate Services**

Date: \_\_\_\_\_

**THE CITY OF LAWRENCE, KANSAS**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

STATE OF OKLAHOMA     )  
  )     SS  
COUNTY OF TULSA     )

Before me, the undersigned, a Notary Public in and for the county and state aforesaid, on this \_\_\_\_\_ day of \_\_\_\_\_, 2007 personally appeared \_\_\_\_\_, to me personally known to be the Authorized Signatory for MAGELLAN PIPELINE GP, LLC, a Delaware limited liability company, who being duly sworn did acknowledge to me that he/she executed the foregoing instrument on behalf of said limited liability company as the free and voluntary act and deed, for the uses, purposes and consideration therein set forth.

Witness my hand and official seal.

\_\_\_\_\_  
Notary Public

My commission expires:

\_\_\_\_\_

STATE OF                     )  
  )     SS  
COUNTY OF                 )

Before me, the undersigned, a Notary Public in and for the County aforesaid, on this \_\_\_\_\_ day of \_\_\_\_\_, 2007, personally appeared \_\_\_\_\_ to me known personally to be the \_\_\_\_\_ of \_\_\_\_\_, who being duly sworn did acknowledge to me that he/she executed the foregoing instrument on behalf of said \_\_\_\_\_ as the free and voluntary act and deed of said municipal corporation, for the uses, purposes and consideration therein set forth.

Witness my hand and official seal.

\_\_\_\_\_  
Notary Public

My Commission Expires:

\_\_\_\_\_

# EXHIBIT "A" TO ENCROACHMENT AGREEMENT, 1 of 4

<p><b>MAGELLAN PIPELINE COMPANY, L.P.</b></p> <p><b>General Encroachment Requirements</b></p> <p><b>A. GENERAL</b> - These requirements define the minimum standards of practice for encroachments by a landowner (including any developer, business entity, utility company or individual working for, or on behalf of, or with permission of landowner) (herein referred to collectively as "Owner") to pipeline corridors and rights of way ("Magellan's Easement Tract") owned or operated by Magellan Pipeline Company, L.P. ("Magellan"). Upon written request by Owner to Magellan, a copy of these minimum requirements shall be provided to any developer, business entity, utility company or individual working on behalf of Owner or with the permission of Owner within Magellan's Easement Tract. Specific circumstances may require additional precautions or more stringent methods in order to protect the integrity of Magellan's pipelines and facilities. Magellan's Easement Tract for purposes of these General Encroachment Requirements shall be considered to be any area within fifty (50) feet of any Magellan pipeline or other Magellan-owned or operated facility unless a different right of way width is specified by one or more recorded right of way or easement documents (herein collectively called "Easement", whether one or more), in which case such specified width shall define Magellan's Easement Tract.</p> <p><b>1. Encroachment Definition.</b> An "encroachment" is any use of the land within Magellan's Easement Tract which could interfere with Magellan's Easement rights or which could create safety concerns for Magellan pipelines and/or facilities located on Magellan's Easement Tract. Encroachments include, but are not limited to: structures, fixtures, personal property, landscaping, foreign utilities, foreign pipelines, roadways, railroads, waterway crossings, water impoundments, walls, heavy equipment and heavy loads on Magellan's Easement Tract, and also any excavation, digging, drilling, tunneling and addition, removal or disturbance of soil or subsoil within Magellan's Easement Tract.</p> <p><b>2. Magellan Representative Required On-Site.</b> Magellan pipeline systems operate at high pressures, and for safety reasons, Magellan requires its company representatives to be on-site while Owner is excavating or performing other activities which could endanger the Magellan pipelines or other facilities on</p>	<p>Magellan's Easement Tract. For other activities of the Owner on the Magellan Easement Tract, the Magellan field representative shall determine whether Magellan's continuous presence or periodic monitoring of encroachment activities will be required and shall inform the Owner. A Magellan representative will be made available upon 48 hours notice (exclusive of weekends and holidays) to determine the location and approximate depth of any Magellan pipelines. No excavation shall be commenced without prior written approval from Magellan and verification by Magellan of the location and approximate depth of its pipelines.</p> <p><b>3. Magellan's Facilities.</b> Magellan's facilities include, but are not limited to, Easement, rights of way, pipelines, meter and valve sites, aboveground piping manifolds and cathodic protection systems.</p> <p><b>4. Land Use Change - Notification.</b> The landowner and tenant, if any, must notify Magellan at any and every time when the land use will be changed for land on or adjacent to Magellan's Easement Tract. Examples of such land use changes are:</p> <ul style="list-style-type: none"> <li>• Change from pasture to cultivation</li> <li>• Change in depth of tilling (e.g. plowing deeper or deep-breaking the land)</li> <li>• Change in that terraces will be cut or re-cut</li> <li>• Change from agricultural use to residential, commercial or industrial use.</li> <li>• Change from residential to commercial or from commercial to industrial.</li> </ul> <p><b>5. Governmental Regulations and Industry Guidelines.</b> Owner must comply with all applicable laws and regulations, as well as Magellan's policies as expressed herein. Owner is also hereby referred to the Common Ground Alliance Best Practices which can be found on the web site: <a href="http://www.commongroundalliance.com">www.commongroundalliance.com</a> (See "Program Information" / "Best Practices") and which is available from Common Ground Alliance in booklet form for easy reference. Best Practices addresses the most common issues for damage prevention for an encroaching party, including, among others: Planning and Design; One-Call Center; Locating and Marking; Excavation; and Mapping. In the event of a conflict between laws and regulations, Magellan's policies and the Common Ground Alliance Best Practices, the following priority shall govern encroachments on Magellan's Easement Tract: 1st -- laws and regulations; 2nd -- Magellan policies; and 3rd -- Common Ground Alliance Best Practices.</p>	<p><b>B. MAGELLAN RIGHT OF WAY PRACTICE</b></p> <p><b>1. Personal Property and Fixtures To Be Kept Off of Magellan's Easement Tract.</b> In order to keep Magellan rights of way clear for operations, maintenance, inspection and emergency access, personal property and fixtures shall not be placed, stored or maintained on Magellan's Easement Tract. Personal property and fixtures include, but are not limited to, storage sheds, automobiles, trailers, mobile homes, above-ground swimming pools, business equipment, product inventory, scrap metal, boulders, large rocks, debris, junk and piles of materials.</p> <p><b>2. Encroachments Subject to Being Cleared from Magellan's Easement Tract.</b> Subject to the terms of its Easement (including right of way agreements) and other written agreements, Magellan may keep Magellan's Easement Tract clear of items that may hinder the exercise of Magellan's rights to construct, operate, inspect, maintain, repair and access its pipelines and other facilities. Clearing of the Magellan's Easement Tract shall include, but not be limited to the following: removal of trees, brush, crops, other vegetation and non-permitted encroachments located on or overhanging all or part of any Magellan's Easement Tract. Trees or other vegetation overhanging Magellan's Easement Tract may be side-trimmed.</p> <p><b>C. ENCROACHMENT PLANNING</b></p> <p><b>1. Plan Review Required by Magellan.</b> For any encroachment, Magellan must be provided project plans to review and approve, <i>prior to the encroachment occurring</i>, for purposes of damage prevention.</p> <p><b>2. Submission of Complete Plans.</b> Owner must submit complete plans to Magellan for review. Incomplete plans could delay Magellan's engineering impact study and insufficient information could result in increased costs. Plans must include:</p> <ul style="list-style-type: none"> <li>• A plan view of the project with the pipeline(s) location included.</li> <li>• An illustration in profile of the existing surface elevations, the proposed surface elevations and the elevation of the Magellan pipeline(s).</li> <li>• A comprehensive utility /structure /grading plan depicting the relationship to the pipeline(s).</li> <li>• A proper legal description of the project location.</li> <li>• Complete landscaping plans.</li> <li>• Complete plans for backfilling and compaction of backfill material.</li> </ul> <p><b>3. Plans Must Show Magellan's Easement Tract, Pipelines and Facilities.</b> All construction plans (prints) showing lands where all or any part of Magellan's Easement Tract, any Magellan pipeline or facility is located must contain the</p>	<p>following:</p> <ul style="list-style-type: none"> <li>• Location and depth of all Magellan pipelines and facilities</li> <li>• The width of Magellan's Easement Tract</li> <li>• A standard warning statement <i>conspicuously displayed</i> containing the following language:</li> </ul> <p style="text-align: center;"><b>WARNING</b> <b>HIGH-PRESSURE PIPELINE(S)</b> <i>Excavation and/or Construction Prohibited Without compliance with State One-Call AND Without Written Permission From MAGELLAN PIPELINE COMPANY, L.P.</i></p> <p><b>4. Written Encroachment Agreement Required.</b> A written, fully executed Encroachment Agreement must be in place between Magellan and Owner before Owner commences work on any encroachment.</p> <p><b>5. Costs.</b> Unless otherwise agreed in writing, all costs to Magellan that result from any encroachment should be paid by Owner. Such costs shall include, but not be limited to: modification, replacement, lowering, and protection of pipelines, including engineering evaluation and design, field labor and real estate research and document preparation and handling.</p> <p><b>6. Pipeline Integrity Inspection.</b> Prior to the installation of any structure, parking lot, roadway or other facility which might interfere with or hinder Magellan's inspection of any pipeline or facility, Magellan will perform an integrity review of its pipeline and any other assets which may be affected by the proposed structure, parking lot, roadway or other encroaching facility in order to determine that Magellan's assets comply with integrity requirements and to allow Magellan to make any needed changes prior to construction of any encroachments.</p> <p><b>7. Soil On Magellan's Easement Tract - Removing and Adding.</b> No soil shall be removed from or added to Magellan's Easement Tract without written authorization from Magellan. Any soil added must be clean (without contaminants, trash or debris) fill dirt and must be <i>limited in amount</i> so that the</p>	<p>resulting cover (vertical distance from the surface of the land to the top of Magellan's pipeline) is not greater than eight feet (8').</p> <p><b>8. Erosion Control Materials.</b> Erosion-control materials may be allowed on Magellan's Easement Tract for temporary periods of construction and restoration.</p> <p><b>9. Proof of Title to Property.</b> Magellan may require Owner to provide proof of current ownership of the land where the proposed encroachment is to be located. Such proof may be in the form of a Title Commitment, Title Policy, or a copy of a recorded Warranty Deed.</p> <p><b>10. Subdivision Plat.</b> Magellan requires a copy of the Subdivision Plat, if applicable. If the plat has been recorded, Magellan requires a copy indicating the book and the page of the recording.</p> <p><b>11. Location and Approximate Depth of Pipelines.</b> A Magellan representative is normally available with 48 hours notice (exclusive of weekends and holidays) to determine the location and approximate depth of the pipeline(s). Determining actual depths of pipelines may require pot-holing or hand-digging by, and at the expense of Owner in the presence of an authorized Magellan representative. No excavation on Magellan's Easement Tract shall take place without approval by Magellan.</p> <p><b>12. Vertical Separation Between Magellan Pipeline or Facility and an Encroaching Object or Structure.</b> Vertical separation is defined in this document as the vertical distance between the outermost part of a Magellan pipeline, facility or appurtenance (for example, the outside of the pipe [for uncased pipe] or the outside of the pipe casing [for cased pipe]) and the outermost part of the encroaching object (for example, the outside of the encroaching pipeline or the outside of its conduit).</p> <p><b>13. Construction Equipment Information.</b> Owner shall provide to Magellan information as to the type, size, and weight of construction equipment that will be used over or in the vicinity of the pipeline(s).</p> <p><b>D. ENCROACHMENT DESIGN REQUIREMENTS &amp; STANDARDS</b></p> <p><b>1. Risk of Loss and Damage.</b> Owner shall bear the risk of loss, damage and/or destruction to any structure, fence, landscaping or improvement placed within the boundaries of Magellan's Easement Tract and shall hold Magellan harmless</p>
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<p>for damages, destruction of structures and for any consequential damages which may arise out of Magellan or its designees exercising Magellan's Easement rights or which may arise out of accessing Magellan's Easement Tract, pipelines or facilities.</p> <p><b>2. Buildings, Structures and Fences.</b></p> <p><b>a. Buildings and Structures.</b> No buildings, houses, barns, garages, patios, playhouses, sheds, septic systems or drain fields, swimming pools (above-ground or below-ground), reinforced concrete slabs or other similar structures will be permitted on the Magellan's Easement Tract.</p> <p><b>b. Septic System not permitted.</b> No septic-system, including any lateral lines will be permitted on Magellan's Easement Tract.</p> <p><b>c. Retaining Walls.</b> Retaining walls are not permitted on Magellan's Easement Tract.</p> <p><b>d. Fences.</b> No fence shall be constructed or maintained on Magellan's Easement Tract without a written agreement.</p> <p><b>e. Requirements for Fences.</b> If fencing on Magellan's Easement Tract is authorized by a written agreement with Magellan, the fencing must comply with the following:</p> <p>1) <b>Not Parallel to Pipeline.</b> No fence shall be allowed to be constructed parallel closer than 10 feet to any Magellan pipeline, within the boundaries of Magellan's Easement Tract.</p> <p>2) <b>Fence Posts Location.</b> No fence posts will be allowed to be within five (5) feet of any Magellan pipeline or facility.</p> <p>3) <b>Gates Required.</b> Magellan may require any fence constructed within the boundaries of Magellan's Easement Tract to have gates of such size and suitability as is necessary or convenient for Magellan to access its pipelines and/or facilities for its operations, including inspections, at each point where the fence crosses a Magellan pipeline or facility boundary. Magellan shall be allowed to put a Magellan lock on such gates, which will allow access to Magellan's Easement Tract and/or facilities through such gates.</p> <p>4) <b>Angle of Fence Crossing.</b> It is preferred that fence crossings be as close to 90 degrees as possible.</p> <p><b>3. Landscaping, Elevation Changes and Water.</b></p> <p><b>a. Landscaping Definition.</b> Landscaping shall include, but not be limited to, trees, shrubs, underground irrigation or sprinkler systems, sidewalks or other paths, retaining walls, terraces or other land grade changes, within</p>	<p>Magellan's Easement Tract.</p> <p><b>b. General Landscaping Requirements.</b> The following are the general rules for landscaping on Magellan's Easement Tract:</p> <p>1) <b>Written Approval.</b> Landscaping proposed to be done on Magellan's Easement Tract must be approved by Magellan in a written <b>encroachment agreement</b>. Among other terms, the encroachment agreement will release Magellan from any liability for damages to the landscaping from the exercise of Magellan's Easement rights.</p> <p>2) <b>Trees Not Permitted.</b> Trees are not permitted on Magellan's Easement Tract.</p> <p>3) <b>Shrubs.</b> Shrubs exceeding 3 feet in height and/or obstructing the view of any Magellan pipeline marker posts are not permitted on Magellan's Easement Tract.</p> <p>4) <b>Irrigation Systems, Field Drain Lines, and Sidewalks.</b> Irrigation systems, field drain lines and sidewalks that are to cross a Magellan pipeline must cross such pipeline at an angle as close to 90 degrees as possible, but in no event at an angle less than 45 degrees and must comply with other applicable provisions of this document.</p> <p><b>c. No Water Bodies on Magellan's Easement Tract.</b> Retention of water, including but not limited to, livestock ponds, lakes, retention ponds, or wetlands may not be constructed or formed on Magellan's Easement Tract.</p> <p><b>d. Surface Grade and Elevation Changes.</b> Surface grade or elevation changes must be reviewed and approved in writing by Magellan.</p> <p><b>4. Foreign Pipeline &amp; Utility Crossings.</b> No foreign pipelines or utility lines of any type shall be allowed to be constructed parallel to any Magellan pipeline within the boundaries of Magellan's Easement Tract.</p> <p><b>a. Minimum Angle for Pipeline/Utility Crossing.</b> Any foreign pipeline or utility that is proposed to cross a Magellan pipeline must cross the Magellan pipeline at an angle as close to 90 degrees as possible, but in no event at an angle less than 45 degrees.</p> <p><b>b. Vertical Separation Requirements for Crossing.</b> Foreign pipeline(s), utilities (except high-voltage lines -- see below) or flow lines should cross Magellan pipeline(s) with at least 24 inches of vertical separation. Special written authorization must be given in the event vertical separation is less than that specified in these General Encroachment Requirements. The preferred method for a foreign pipeline or utility to cross a Magellan pipeline is to cross <b>below</b> the Magellan pipeline.</p> <p><b>c. Warning Tape Required.</b> When any foreign pipeline or utility line is proposed to cross a Magellan pipeline, Owner must place 6" wide McMaster-Carr No. 8288T12 or equal within Magellan's Easement Tract</p>	<p>in the following manner:</p> <p>1) The tape must be placed directly over (parallel to) and at least 15 inches above the foreign line for the entire distance that it occupies Magellan's Easement Tract. Additionally, the tape must be placed directly over (parallel to) and at least 15 inches above each Magellan pipeline that is crossed for a minimum distance which is the greater of:</p> <p>(a) a minimum distance of 20 feet on each side of the Magellan pipeline, or</p> <p>(b) across the entire width of Magellan's Easement Tract</p> <p>2) The placement of warning tape on each side of Magellan pipeline(s) will not be required for utility cables that are installed using the directional drill or jacking method.</p> <p><b>d. Crossings By Metal Pipelines or Conduits.</b> Metallic pipe crossing Magellan pipeline(s) may require Magellan to perform a cathodic protection interference survey. If interference with Magellan's cathodic protection system is detected and remediation is necessary, Owner agrees to cooperate with Magellan and to make necessary adjustments in Owner's interfering metallic pipe or other remediation to correct such interference problem insure that the Magellan cathodic protection system is operating properly.</p> <p><b>e. Crossing Requirements.</b> Electrical, fiber optic, local service communication, long distance carrier telephone, and utility cables should cross Magellan pipeline(s) with a <b>minimum of 24-inches of vertical separation</b>. All such lines must be covered with a <b>Concrete Slab</b> for the full width of the Easement Tract, if requested by Magellan. If such lines have an exposed concentric neutral, a test point from the ground wire shall be installed by the power company.</p> <p><b>f. Crossing Requirements For Lines Going Over a Magellan Pipeline.</b> In the event the electrical, fiber optic, local service communication, long distance carrier telephone, and utility cables cable crosses <b>over</b> a Magellan pipeline, such line shall be <b>encased in red concrete across the full width of Magellan's Easement Tract</b>, unless a variance is granted by Magellan, as set forth below.</p> <p><b>g. Written Authorization for Variance.</b> Owner must have written authorization from Magellan for any variance from the vertical separation requirements listed above and/or for any variance from the requirement for</p>	<p>encasement of high-voltage electrical lines in red concrete.</p> <p><b>h. Utility Poles and Guy Anchors.</b> Utility poles and guy anchors shall not be placed on Magellan's Easement Tract without a written agreement. With a written agreement, poles and anchors may be placed no closer than 20 feet to any Magellan pipeline. Poles shall not be allowed to run parallel to a Magellan pipeline within the Magellan Easement Tract.</p> <p><b>i. Directional Drilling / Boring.</b></p> <p>1) Prior to commencing any horizontal directional drilling, Owner shall submit plans showing procedure and material descriptions for Magellan's approval. The plans and description shall include, but not be limited to the following:</p> <ul style="list-style-type: none"> <li>• Profile and plan showing location of entry and exit points</li> <li>• Work space required to perform the work</li> <li>• Mud containment and disposal sites</li> </ul> <p>2) Owner shall positively locate and stake the location of Magellan's existing pipelines and other underground facilities, including exposing any facilities located within 10 feet of the designed drilled path. Prior to commencing drilling operations, Owner shall modify drilling practices and down-hole assemblies to prevent damage to Magellan's existing pipelines and other facilities. Owner shall be responsible for losses and repairs occasioned by damage all Magellan pipelines and other facilities resulting from drilling or boring operations.</p> <p>3) At all times, Owner shall provide and maintain instrumentation to document and accurately locate the pilot hole and the drill bit, to measure drill-string axial and torsional loads, and to measure drilling fluid discharge rate and pressure. At Magellan's request, Owner shall promptly provide Magellan with reasonable access to information and readings provided by these instruments, including copies of any written documentation.</p> <p>4) <b>Pilot Hole.</b></p> <ul style="list-style-type: none"> <li>• The pilot hole shall be drilled along the path shown in the plan and profile drawings. No pilot hole shall be made that will result in any of the encroaching utility being installed in violation of laws and regulations or of Magellan's requirements described herein. However, safety for any adjacent utilities and/or structures is of utmost importance. Therefore, the listing of separation distances or tolerances herein does not relieve Owner from responsibility for safe operations or for damage to adjacent utilities and structures.</li> <li>• If tolerances are not specified in the plan and profile drawings, the pilot hole shall have the following tolerances:</li> </ul>	<ul style="list-style-type: none"> <li>• Elevation of +0 feet and -15 feet</li> <li>• Alignment of +/-20 feet as long as it does not come to within 10 feet of Magellan's pipeline</li> <li>• Initial penetration of ground surface at exact location shown in the plan and profile drawings</li> <li>• Final penetration of the ground surface within +/-10 feet of the alignment and within +30 feet and -0 feet of the length shown in the plan and profile drawings</li> <li>• Curves shall be drilled at a radius equal to or greater than that specified in the plan and profile drawings. The drilled radius will be calculated over any 3 joints (range 2 type drill pipe) segment using the following formula:  <math display="block">R_{drilled} = (L_{drilled}/A_{avg}) \times 180/\pi</math> Where: <math>R_{drilled}</math> = drilled radius over <math>L_{drilled}</math>  <math>L_{drilled}</math> = length drilled; no less than 75 feet and no greater than 100 feet  <math>A_{avg}</math> = total change in angle over <math>L_{drilled}</math></li> <li>• At the completion of the pilot-hole drilling, Owner shall provide to Magellan a tabulation of horizontal and vertical coordinates, referenced to the drilled entry point, which accurately describe the location of the pilot hole.</li> </ul> <p><b>5) Drilling Fluids.</b></p> <ul style="list-style-type: none"> <li>• The composition of drilling fluids proposed for use shall comply with all applicable laws and regulations.</li> <li>• Owner is responsible for obtaining, transporting and storing any water required for drilling fluids.</li> <li>• Disposal of drilling fluids and drill cuttings shall be Owner's responsibility and shall be conducted in compliance with applicable laws and regulations. Drilling fluid shall <b>not</b> be disposed of by placing fluids on or under the surface of Magellan's Easement Tract.</li> <li>• Owner shall employ best efforts to maintain full annular circulation of drilling fluids. Drilling fluid returns at locations other than entry and exit points shall be minimized. If annular circulation is lost, Owner shall take steps to restore circulation. If inadvertent surface returns of drilling fluids occur, they shall be immediately contained with hand-placed barriers (e.g., hay bales, sand bags, silt fences, etc.) and collected using pumps as practical. If the amount of surface return is not great enough to allow practical collection, the affected area will be diluted with fresh water and the fluid will be allowed to dry and dissipate naturally. If</li> </ul>
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# EXHIBIT "A" TO ENCROACHMENT AGREEMENT, 3 of 4

the amount of surface return exceeds that which can be contained with hand-placed barriers, small collection sumps (less than 5 cubic yards) may be used unless permits or other regulations prohibit the use of collection sumps. If the amount of surface return exceeds that which can be contained and collected using barriers or small sumps, or if the return of drilling fluids occurs in the body of water proper, drilling operations will be suspended until surface return volumes can be controlled.

6) **As-Built Drawing.** Owner shall provide to Magellan an as-built plan and profile drawing of the drilled crossing showing the location of the new crossing as well as the location of Magellan's pipeline.

## 5. Roadway, Driveway, Railroad and Equipment Crossings.

**a. Pipeline Integrity Inspection.** A pipeline integrity review shall be performed by Magellan as described in provision "6" under "C. Encroachment Planning" (above).

**b. Load Bearing and Stress Limit Requirements.** Prior to any road, driveway, rail bed or equipment crossing construction, Magellan's engineer must determine whether the proposed compacted cover meets load-bearing requirements and provides adequate protection to limit stress on Magellan's pipeline or other facilities and must advise Owner of any additional requirements necessary to provide adequate protection.

**c. No Crossing Over Pipeline Bend.** Paved surfaces or rail beds shall not be allowed to cross a pipeline bend (point of inflection).

**d. Minimum Angle of Crossing.** Crossings should be as close to 90 degrees to Magellan pipeline(s) as possible, but not less than 30 degrees.

**e. Pipeline Casing Issues.** Magellan prefers that cased roadway and railroad crossings no longer be installed. If the carrier pipe under roadways and railroads requires adjustment or relocation, then instead of using casing, the carrier pipe will consist of extra strength material or heavier wall thickness to accommodate the additional longitudinal stress due to external loads. If a road or railroad crossing currently uses casing and the road or railroad is being widened and no other adjustment or relocation of the carrier pipe is required, then Magellan may elect to extend the casing pipe on the existing crossing(s) to accommodate additional road surface. If casing is used, it must not end under the roadway surface or track structure, but must extend across the entire length of the roadway or railroad right of way.

**f. Railroad Crossing Requirements.** Railroads shall be installed with a

minimum compacted cover over the carrier pipe, as measured from the base of the rail to the top of the pipe, as follows (see Figures 1 and 3):

Location of Pipeline	Minimum Compacted Cover Over Top of Pipeline
Under track structure proper (Below bottom of rail)	6.0 feet
Under all other surfaces within the right of way or from the bottom of ditches	3.0 feet

## g. Roadway and Driveway Crossings.

Roadways and driveways, shall be installed with a minimum compacted cover over the carrier pipe, as measured from the top of the roadway surface to the top of the pipe, as follows (see Figures 2 and 4):

Location of Pipeline	Minimum Compacted Cover Over Top of Pipeline
Under roadway surface proper (Below surface of pavement)	4.0 feet
Under all other surfaces within the right of way or from the bottom of ditches	3.0 feet

**h. Crossing Pipelines Transporting Highly Volatile Liquids.** For Magellan pipelines transporting highly volatile liquids, minimum cover for a crossing at a drainage ditch must be 4.0 feet.

**i. When Additional Depth Required.** Depth greater than the minimum depths stated above may be required for a pipeline due to the combined stress of internal pipeline pressure and external loading pressure. Magellan will analyze each proposed crossing based on information provided by Owner to determine any additional depth that may be required for the pipeline for safe operation.

**j. Temporary Roads and Equipment Crossings.** Any such road or crossing must meet the following requirements:

- Must be located at a site approved by a Magellan field representative.
- Must provide adequate protection for Magellan's pipeline and other facilities, as determined by the appropriate Magellan engineer, so that the compacted cover meets load-bearing requirements and provides adequate protection to limit stress on the pipeline or other facilities.

• Owner shall place Six-inch wide plastic warning tape, McMaster-Carr No. 8288T12 or equal, over each pipeline for the width of the temporary road or equipment crossing, plus an additional 20 feet past each outside edge of such temporary road or equipment crossing.

**k. Owner Required to Protect Magellan Pipelines.** Magellan may require Owner to put in place additional cover and/or stabilization (timbers, steel plate, crushed rock, concrete slab, etc.) at any approved equipment crossing in order to protect Magellan pipelines, taking into account possible effects of weather, pipeline depth, and type of vehicles proposed to cross the pipelines. Magellan will analyze each proposed crossing based on information provided by Owner to determine any additional depth or protection that may be required for safe pipeline operation.

**l. Heavy Equipment - Definition and Requirements.** Heavy equipment shall be defined as vehicles having a gross weight in excess of 80,000 pounds. Heavy equipment shall be prohibited from working directly on top of the active pipeline. For vehicles having a gross weight of 80,000 pounds or less, the pipeline must have a minimum of 4 feet of cover. Magellan must analyze the additional longitudinal stress due to external loads if the vehicles have a gross weight in excess of 80,000 pounds in order to determine required pipeline depth for safe operation.

## 6. Parking Lots and Other Pavement.

**a. Parking Lot and Pavement Requirements.** All parking lots and other pavement installed on Magellan's Easement Tract shall consist of a flexible surface such as asphalt. No reinforced concrete will be allowed.

**b. Pipeline Depth Under Parking Lot.** The depth of Magellan's pipelines under a parking lot must meet or exceed compacted cover requirements listed in the previous "Roadway, Driveway, Railroad, and Equipment Crossings" section above.

## 7. Waterway Crossings.

**a. Pipeline Depth Requirements.** If Owner proposes to cross a Magellan pipeline with a waterway (river, stream, creek, irrigation canal, or drainage ditch), such crossing must result in Magellan's pipelines meeting or exceeding the minimum depth below the bottom of the waterway for compliance with then current pipeline construction standards and federal, state, and local regulations.

**b. Requirements for Waterway Crossings:**  
1) Minimum Angle of Crossing. Crossings should be as close to 90 degrees to Magellan pipeline(s) as possible, but not less than 45

degrees.

2) **Vertical Separation Requirements for Waterway Crossing.** Pipelines to be crossed must have a minimum vertical separation of five (5) feet, as measured from the bottom of the waterway to the outermost part of a Magellan pipeline, facility or appurtenance.

3) **Adding Weight to Pipeline for Negative Buoyancy.** Owner shall bear the cost of Magellan adding sufficient weight or mechanical devices to any Magellan pipeline crossed by a waterway in order to create negative buoyancy for such pipeline.

## 8. Blasting.

**a. Magellan Written Approval Required - Plan To Be Submitted.** Magellan must approve any proposed blasting operations that could affect its pipelines or facilities. Should blasting be necessary, a comprehensive plan must be submitted to Magellan for review and written approval.

**b. Safety Considerations - Damage Prevention Plan.** For safety and preservation of Magellan assets, all blasting shall be in accordance with federal, state, and local governing agencies and the Magellan's "Damage Prevention Plan for Blasting Near Company Facilities". A copy of said plan will be made available upon request.

## E. EXCAVATION NEAR MAGELLAN PIPELINES.

1. **STATE "ONE-CALL" REQUIRED.** No excavation or activity listed in "A. GENERAL - 1. Encroachment Definition" above shall be performed by Owner in the vicinity of Magellan's facilities or within Magellan's Easement Tract until proper telephone notification has been made to the appropriate "One Call" system and a Magellan representative is on-site to monitor excavation activities. All of the states in which Magellan conducts pipeline operations have "One Call" laws, which require 48-72-hours notification prior to any excavation related activities. After making a One-Call, the state One-Call agency will notify Magellan to mark accurately, in a reasonable and timely manner, the location of the Magellan's pipeline facilities in the vicinity of the proposed encroachment.

2. **ONE-CALL NOTIFICATION.** The following list is provided for convenience, but is not warranted by Magellan to be complete or accurate (telephone numbers were copied from each state's web site on 1/5/2004). Owner is required to acquire and call the appropriate One-Call number(s) for its location of activity.

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Current "ONE-CALL" numbers and information can be found on each state's "ONE-CALL" website:

Arkansas - www.arkonecall.com/ - 800 482-8998  
 Colorado - www.uncc2.org/ - 800 922-1987  
 Illinois - www.illinois1call.com/ - 800 892-0123  
 Iowa - www.iowaonecall.com/ - 800 292-8989  
 Kansas - www.kansasonecall.com/ - 800 344-7233  
 Minnesota - www.gopherstateonecall.org/ - 800 252-1166  
 Missouri - www.molcall.com/ - 800 344-7483  
 Nebraska - www.ne-diggers.com/ - 800 331-5666  
 North Dakota - www.ndonecall.com/ - 800 795-0555  
 Oklahoma - www.callokie.com/ - 800 522-6543  
 South Dakota - www.sdonecall.com/index.asp - 800 781-7474  
 Texas - www.texasonecall.com/ - 800 245-5455  
 Wisconsin - www.diggershotline.com/ - 800 242-8511

Alternatively, the National One-Call number - (888) 258-0808 - may be used to register a proposed excavation and to subsequently notify underground utility operators with assets in the vicinity.

**3. Excavation Plan Approval.** Owner shall submit to Magellan for its approval plans for any proposed excavation on the Magellan Easement Tract. No excavation on Magellan's Easement Tract shall be commenced until Owner has secured Magellan's written approval of the plans. The excavation work shall be in compliance with all applicable laws and regulations. Owner is also referred to the Common Ground Alliance Best Practices (referenced in this document).

**4. Magellan Representative On-Site for Excavation.** A Magellan representative must be on-site when an excavation is occurring on Magellan's Easement Tract (see provision "2" under "A. General" beginning on page 1):

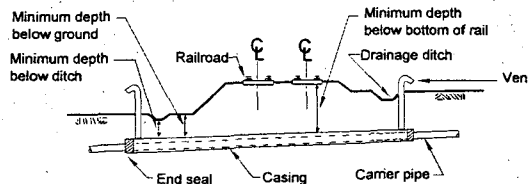
**5. Removal of Side-Cutting Teeth from Equipment.** Side-cutting teeth shall be removed from buckets of excavating equipment.

**6. Parallel Excavating Required.** When, in preparation for crossing any Magellan pipeline with any other pipeline or with electric line, communication line, roadway or any other structure or facility, Owner needs to locate a Magellan pipeline by use of mechanical means: Owner must perform such locating activity by excavating parallel to the Magellan pipeline with such mechanical means, but

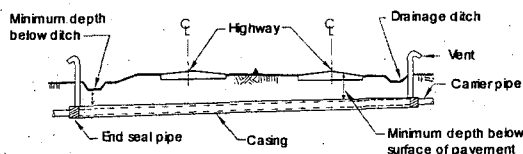
shall cease using the mechanical means when it reaches a point within two feet of the Magellan pipeline (see next provision).

**7. Exposing Pipeline by Hand.** Excavating within 2 feet of any Magellan pipeline shall be done by *hand-digging* until the pipeline is exposed and its location is accurately known. Then, Owner must position the excavation equipment so that from the point of operations the equipment will not reach within 2 feet of any Magellan pipeline.

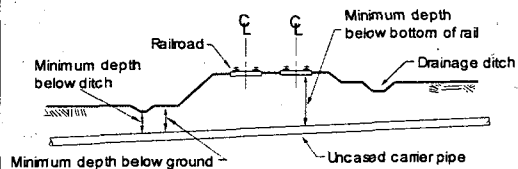
## RAILROAD AND HIGHWAY CROSSINGS



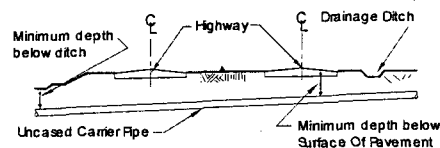
CASED RAILROAD CROSSING  
FIGURE 1



CASED HIGHWAY CROSSING  
FIGURE 2



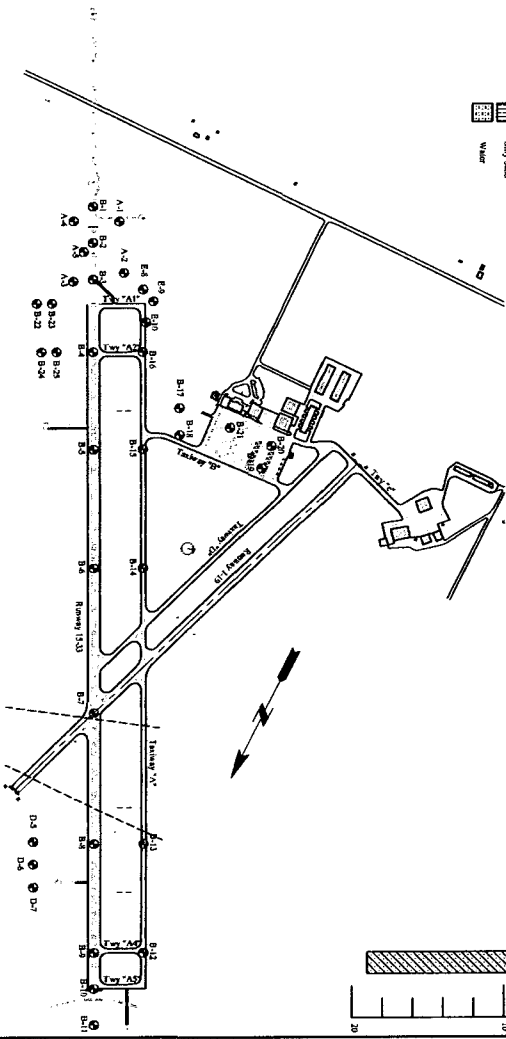
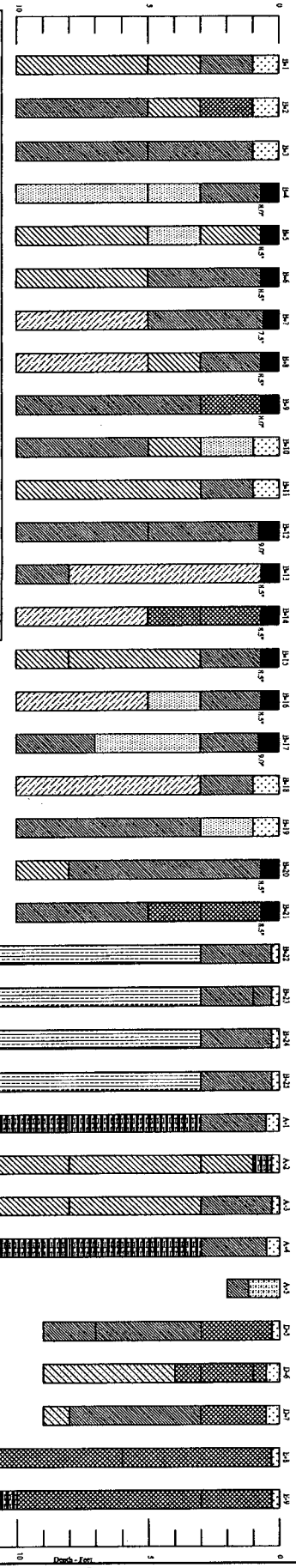
UNCASED RAILROAD CROSSING  
FIGURE 3



UNCASED HIGHWAY CROSSING  
FIGURE 4



Summary of Laboratory Test Results									
Sample Location (S&P)	Water Content (%)	Dry Unit Weight (pcf)	Unconfined Strength (psf)	% Passing No. 200 Sieve	Atterberg Limits (LL, PL, Shrinkage)	Soil Classification (ASTM D 1586)	Soil Classification (Unified Classification)		
B-1	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-2	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-3	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-4	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-5	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-6	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-7	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-8	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-9	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-10	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-11	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-12	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-13	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-14	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-15	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-16	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-17	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-18	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-19	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
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B-23	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-24	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-25	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-26	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-27	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-28	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-29	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-30	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-31	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
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B-34	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-35	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-36	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-37	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-38	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-39	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-40	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-41	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-42	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-43	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-44	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-45	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-46	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-47	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-48	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-49	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-50	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-51	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-52	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-53	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-54	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-55	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-56	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-57	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-58	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-59	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-60	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-61	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-62	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-63	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-64	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-65	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-66	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-67	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-68	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-69	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-70	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-71	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-72	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-73	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-74	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-75	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-76	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-77	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-78	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-79	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-80	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-81	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-82	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-83	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-84	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-85	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-86	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-87	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-88	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-89	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-90	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-91	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-92	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-93	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-94	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-95	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-96	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-97	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-98	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-99	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		
B-100	21.0	110.0	100	34	LL 21, PL 14, Sh 7	ML (CLAYEUST)	CL-ML		



- Notes:**
1. Test holes were drilled on 2/14/01.
  2. Locations of the test holes were measured approximately by pacing from known points on the site plan.
  3. Elevations of the test holes were measured and the depth of the test holes are given in depth.
  4. The soil test locations and elevations should be considered accurate only to the degree implied by the method used.
  5. The lines between materials shown on the soil logs represent the approximate boundaries between materials types and the transitions may be gradual.
  6. Groundwater was not encountered during drilling. Groundwater level was assumed to be at the surface of the soil.