



Road Usage and Construction Opportunities

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April 27, 2012



**OIL AND GAS CONSTRUCTION
WORKSHOP**



Background

- Prior to horizontal drilling with fracking, little damage was done to the roads
 - Due to the amounts and weights involved with horizontal drilling, many roads were severely damaged
 - Highway agencies are already in a financial crisis
 - Operators were expected to provide maintenance and repairs
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Background

- Originally provided maintenance after major damage
- Some roads damaged to the extent that emergency services could not be provided
- Maintenance provided, but repairs/reconstruction was required
- Approach in Ohio is to provide proactive improvements to prevent damage







KAYDEN



45,000 LBS











Highway Agencies

- 12 ODOT Districts
 - 88 Counties
 - 1309 Townships
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Need for Agreements

- Protects both parties involved
 - Sets expectations
 - Defines responsibilities
 - Limits exposure
 - Establishes timeframe
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Need for Road Use Maintenance Agreements (RUMA)

- Starts discussion early
- Defines access routes
- Use of statewide form recommended
- Modified to individual road

**MODEL ROADWAY USE AND MAINTENANCE AGREEMENT
FOR HORIZONTAL DRILLING PROJECTS AND INFRASTRUCTURE**

THIS AGREEMENT is entered into at _____, Ohio, by and between _____ COUNTY / TOWNSHIP _____, a political subdivision, whose mailing address is _____ (hereafter "Authority"), and _____, whose address is _____ (Hereafter "Operator"), and shall be as follows:

RECITALS

WHEREAS, Authority has control of the several county/township roads within _____ Township, in _____ County, Ohio and is required by law to keep such roads in good repair; and

WHEREAS, Operator is the operator of certain oil and gas leasehold, and intends to develop and operate the [DEVELOPMENT SITE NAME], including the equipment, facilities, impoundments, and pipelines necessary for the operation of the [DEVELOPMENT SITE NAME] (hereafter collectively referred to as "oil and gas development site") located in _____ Township, in _____ County, Ohio; and

WHEREAS, Operator intends to commence use of _____ miles of CR/TR (_____) and _____ miles of CR/TR (_____) for the purpose of ingress to and egress from the [DEVELOPMENT SITE NAME], for traffic necessary for the purpose of constructing sites and drilling horizontal oil and gas wells, and completion operations at the [DEVELOPMENT SITE NAME] (hereinafter referred to collectively as "Drilling Activity"); and

BOTH PARTIES FURTHER AGREE to the following additional terms and conditions:

1. The portion of CR _____, to be utilized by Operator hereunder, is that exclusive portion beginning at (route description here ending at the intersection of CR/TR) . It is understood and agreed that the Operator shall not utilize any of the remainder of CR/TR () for any of its Drilling Activities hereunder.

2. The portion of CR/TR (_____), to be utilized by Operator hereunder, is that exclusive portion beginning at (the intersection of CR/TR ending at the oil and gas development site) wherein Operator's site are to be constructed herein. It is understood and agreed that the Operator shall not utilize any of the remainder of CR/TR (_____) for any of its Drilling Activities hereunder.

3. Those portions of said roads and bridges and their appurtenances to be used by Operator hereunder and mutually agreed to require necessary strengthening and/or upgrading by the Operator's Engineer in conjunction with the County Engineer, shall be strengthened and/or upgraded to a condition sufficient and adequate to sustain the anticipated Drilling Activity by Operator, at Operator's sole expense, and with the advice and approval of the County Engineer as detailed in Appendix A. Thereafter, such roads shall be maintained by Operator for damages caused by Operator's Drilling Activity, at Operator's sole expense, throughout the term of this Agreement, to a level consistent with the condition of such roads at the commencement of its use by the Operator hereunder or as modified pursuant to Appendix A, as determined by the Operator's engineer and the _____ County Engineer. The maintenance of aforementioned roads includes the use of a commercially recognized dust palliative to control the airborne dust created and/or contributed to by the Operator or the Operator's contractors and or agents.

6. Unless excepted for the reasons provided below, prior to the Drilling Activity on the Route, Operator shall post a bond or other surety in a form satisfactory to the Authority to cover the costs of any damage caused by the Drilling Activity on the Route by Operator. The amount of the bond or surety shall be in an amount no greater than _____ & 00/100 DOLLARS (\$_____.00) per mile. However, no such bond or surety shall be required of Operator, if any of the following conditions are satisfied:

A geotechnical analysis of the Route provided by the Operator and mutually accepted by the Authority and Operator exhibits that the Route's condition is sufficient for the expected traffic necessary for the development of the oil and gas development site.

The Operator provides a geotechnical analysis of the Route, mutually accepted by the Authority and Operator, and based on that analysis, an Operator and Authority-approved maintenance plan for the Route or an Operator and Authority-approved preventative repair plan of the Route is attached to the Agreement as an addendum.

The Operator has provided a sufficient bond or surety, mutually accepted by the Authority and Operator, in favor of the Authority for road usage by the Operator within the Authority's oversight.

7. All motor vehicles to be utilized by Operator hereunder, whether owned by Operator or others, shall comply with all legal size, load and weight limits in accordance with State Law, and all non-conforming vehicles shall require the proper local permit.

8. Operator shall furnish the Authority with a written Letter of Authority, setting forth all necessary contact information, including a twenty four (24) hour emergency contact number, for the authorized local representative of the Operator, and such information shall be maintained and kept current at all times concerned hereunder.

9. If Authority determines that any additional traffic signage is needed, or desired, as a result of this Agreement and in the interests of safety, then Operator shall provide for such signage at Operator's sole expense. In the event that any other safety concerns should arise during the course of this Agreement, Operator and Authority agree that they will mutually discuss such concerns and reach a resolution satisfactory to all concerned.



Remember

Stay on assigned routes



Types of Upgrades

- Stone
- Surface treatments
- Asphalt overlays
- Excavate and rebuild
- Full depth reclamation (FDR)

Stone Upgrades


- Road should be graded and shaped
- Use of engineering fabric recommended
- Layer of larger stone topped with smaller stone for surface course
- Easily maintainable







Surface Treatments

- AKA-- tar and chip, shoot and seal, chip seal
 - Requires a good base to withstand heavy traffic
 - Helps prevent potholes and dust problems
 - May need to be redone
 - Cheaper than dust control in the long run.
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Asphalt Overlays

- Quick Fix
- Needs good base for heavy loads
- Improves smoothness
- Must be thick enough to increase structural strength
- Raises elevation of road










Excavate and Rebuild

- Provides new roadway structure
 - Disruptive to traffic
 - Does not raise elevation
 - May require full time road closure
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Full Depth Reclamation

- Existing road is “rototilled”
- Cement, lime, flyash or asphaltic liquid added
- Road is graded and compacted
- Asphalt overlay or surface treatment used to seal
- Can remove part of existing road in order not to raise height.









Need for Aggregates

- Stone roads
- Roadway bases
- Asphalt
- Shoulder backup
- Underdrains
- Pull off/passing areas
- Rock lined ditches

Aggregate specs

- Almost all road work refers to ODOT specifications
- Some counties or townships may have their own requirements
- Required to provide certification or test results if needed
- Size for gutters based on water velocity




Locations

- Presently, most activity is north of I-70 and in the northeast quadrant
- Very little work needed on state routes
- Most of work is rural
- Expect up to \$100 million in road work from all operators combined



Words to the Wise


- Know the delivery route
 - Don't use GPS to find site
 - Make sure drivers follow route and not go the way they know
 - Stay on state routes until you reach the route to the site
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More Words to the Wise

- Be courteous to the residents
- Slow Down. A truck at 25 looks faster than a car at 35.
- Pull over to allow traffic past
- Drive like it is in front of your own home



Extra Words to the Wise

- Drive like your 16 year old daughter is driving home from school at the same time
 - Report road damages to operator
 - Report property damages to vendor and operator
 - Remember, we are intruding on the residents' lives and neighborhood. Let's make it as painless as possible.
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Thank You

QUESTIONS?