



## JOINT MEETING AGENDA ITEM

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Date: September 11, 2015

To: Brian Kischnick, City Manager

From: Mark F. Miller, Director of Economic & Community Development  
R. Brent Savidant, Planning Director

Subject: ZONING ORDINANCE TEXT AMENDMENT (File Number: ZOTA 247) – Oil and Gas Extraction

This item was initiated by the Planning Commission, who recognized that the Zoning Ordinance is presently silent on the issue of oil and gas extraction. This effort is intended to protect Troy residents and property owners against the negative secondary effects of these facilities while at the same time creating reasonable standards for oil and gas extraction facilities.

Oil and gas extraction in Michigan is regulated by the Natural Resources and Environmental Protection Act (PA 451 of 1994), Part 615 Supervisor of Wells. These are the standards affecting potential oil and gas facilities in Troy today. The most significant standard is a distance requirement of 450 feet from a residential building. Oil and gas facilities can presently be located in residential areas, provided other standards in the Act are met. The proposed provisions would be additional standards over and above what the Act requires.

The provisions would regulate oil and gas extraction in Troy, including hydraulic fracturing. The provisions were discussed by the Planning Commission at numerous meetings. The Planning Commission held a public hearing on this item on June 23, 2015, and recommended approval of the text amendment with a 9-0 vote.

City Council held a public hearing on this item on July 20, 2015 and scheduled a joint City Council and Planning Commission meeting to discuss the proposed amendments. Further, City Management invited individuals knowledgeable of the oil and gas industry to make brief presentations at the meeting and be available to answer questions related to the oil and gas industry.

### Attachments:

1. Zoning Ordinance Text Amendment Public Hearing Draft

CITY OF TROY

AN ORDINANCE TO AMEND  
CHAPTER 39 OF THE CODE  
OF THE CITY OF TROY  
CITY COUNCIL PUBLIC HEARING DRAFT

The City of Troy ordains:

Section 1. Short Title

This Ordinance shall be known and may be cited as an amendment to Chapter 39, Zoning Ordinance, of the Code of the City of Troy.

Section 2. Amendment

Chapter 39 of the Code of the City of Troy is amended as follows:

**Add the following definitions in Section 2.02 to read as follows:**

DERRICK – Any portable framework, tower mast and/or structure which is required or used in connection with drilling or re-working a well for the production of oil or gas.

DRILLING PAD-- The area of surface operations surrounding the surface location of a well or wells. Such area shall not include an access road to the drilling pad.

HYDRAULIC FRACTURING OR FRACKING-- The process of injecting water, customized fluids, sand, steam, or gas into a gas well under pressure to improve gas recovery.

HORIZONTAL DRILLING- The drilling of an oil or natural gas well at an angle so that the well runs parallel to the formation containing the oil or gas.

OIL AND GAS -- Crude oil, natural gas, methane gas, coal bed methane gas, propane, butane and/or any other products or similar substances that are produced by drilling an oil or gas well.

OIL AND GAS DEVELOPMENT -- The well site preparation, construction, drilling, redrilling, hydraulic fracturing, and/or site restoration associated with an oil or gas well of any depth; water and other fluid storage, impoundment and transportation used for such activities; and the installation and use of all associated equipment, including tanks, meters, and other equipment and structures whether permanent or temporary; and the site preparation, construction, installation, maintenance and repair of oil and gas pipelines and associated equipment and other equipment and activities associated with the exploration for, production and transportation of oil and gas. The definition does not include natural gas compressor stations and natural gas processing plants or facilities performing the equivalent functions.

OIL OR GAS WELL--A pierced or bored hole drilled or being drilled in the ground for the purpose of, or to be used for, producing, extracting or injecting gas, oil, petroleum or another liquid related to oil or gas production or storage, including brine disposal.

OIL OR GAS WELL SITE -- The location of facilities, structures, materials and equipment (whether temporary or permanent), that are necessary for or incidental to the preparation, construction, drilling, production or operation of an oil or gas well. This definition also includes exploratory wells.

NATURAL GAS COMPRESSOR STATION -- A facility designed and constructed to compress natural gas that originates from a gas well or collection of such wells operating as a midstream facility for delivery of gas to a transmission pipeline, distribution pipeline, natural gas processing plant or underground storage field, including one or more natural gas compressors, associated buildings, pipes, valves, tanks and other equipment.

NATURAL GAS PROCESSING PLANT -- A facility designed and constructed to remove materials such as ethane, propane, butane, and other constituents or similar substances from natural gas to allow such natural gas to be of such quality as is required or appropriate for transmission or distribution to commercial markets but not including facilities or equipment that is designed and constructed primarily to remove water, water vapor, oil or naturally occurring liquids from the natural gas.

STORAGE WELL-- A well used for and in connection with the underground storage of natural gas, including injection into or withdrawal from an underground storage reservoir for monitoring or observation of reservoir pressure.

**Revise the following table in Section 4.21 to read as follows:**

	R1A-R1E	RT	MF	UR	MHP	CF	EP	CB	GB	IB	O	OM	RC	PV	P
<u>Oil and Gas Well or Development</u>	<u>NP</u>	<u>S</u>	<u>NP</u>	<u>NP</u>	<u>NP</u>	<u>NP</u>	<u>NP</u>								

**Add Section 6.33 to read as follows:**

Section 6.33: Oil and Gas Well/Development Standards for Special Use Approval:

The purpose of this section is to provide for the reasonable development of land for oil and gas drilling while providing adequate health, safety and general welfare protections of the residents of Troy. It is necessary and appropriate to adopt reasonable requirements for oil and gas resource development so that these resources can be obtained in a manner that protects the environment, protects residential properties and residential property values, and mitigates negative impacts.

The following requirements shall apply to the location, installation, drilling and operation of any well for the commercial extraction of oil, gas or other hydrocarbons in the City:

- A. Spacing and Well Setbacks. In addition to the spacing and setback requirements of the State of Michigan and the regulations of its Supervisor of Wells, the drilling, completion, or operation of oil or gas wells or well site shall not be located within 300 feet from any road right-of-way, 500 feet of a residentially zoned or used property or any property used for a religious facility, public or private school, or hospital, and 100 feet from any other property line. The setbacks in this section also apply to the area underground, and

preclude any horizontal drilling within the setback unless the applicant demonstrates to the City's satisfaction a legal entitlement to drill on adjacent properties through mineral rights acquisition or other means.

The measurement of the setback shall be made from the edge of the well site (in a straight line, without regard to intervening structures or objects), to the closest exterior point of the adjacent parcel.

- B. Height. The completed wellhead structure shall not exceed twenty-two (22) feet in height. The temporary drilling derrick/rig shall not exceed one-hundred and ten (110) feet in height.
- C. Minimum Lot Size. The minimum lot size shall be 5 acres.
- D. Fencing, Landscaping, and Lighting.
  - 1. An oil or gas well site shall be completely enclosed within a 6-foot high fence.
  - 2. Staggered ten (10) foot tall evergreen trees shall be placed around the perimeter of the fence with a minimum landscape greenbelt buffer of twenty-five (25) feet in depth. This landscaping buffer shall be in place within thirty (30) days of the removal of the temporary drilling derrick/rig. The landscape buffer and trees shall be regularly irrigated and maintained.
  - 3. Exterior lighting shall comply with Section 13.05 of the Zoning Ordinance.
- E. Nuisance Mitigation. The drilling, completion, or operation of oil or gas wells or other wells drilled for oil or gas exploration purposes shall comply with Section 12.06, Environmental Performance Standards. Those standards address potential nuisances such as noise, smoke, dust, open storage, fire and explosive hazards, odors, wastes, and vibration. Due to the unique nature of this type of operation, additional information and standards may be required.
- F. Dust, Noise, Vibration, and Odors. All operations shall be conducted in such a manner as to minimize, so far as practicable, dust, noise, vibration, or noxious odors, and shall be in accordance with the best accepted practices defined by the Michigan Department of Environmental Quality (MDEQ) for the production of oil, gas and other hydrocarbon substances in urban areas. All equipment used shall be constructed and operated so that vibrations, dust, odor or other harmful or annoying substances or effects will be minimized by the operations carried on at any drilling or production site or from anything incidental thereto, and to minimize the annoyance of persons living or working in the vicinity. Additionally, the site or structures on the property shall not be permitted to become dilapidated, unsightly, or unsafe. The City may impose additional reasonable restrictions upon such operations to reduce adverse impacts upon adjacent properties.
- G. Oil and Gas Processing Facilities. Associated processing facilities that separate oil, gas, and brine and hold said products for transport off-site for further refinement and processing are not permitted.
- H. Compliance with Laws and Permit Issuance. The drilling, completion, or operation of oil or gas wells or other wells drilled for the purpose of oil or gas exploration shall be done in conformity with all State and Federal laws, statutes, rules, and regulations pertaining thereto and particularly with the State of Michigan and the regulations of its Supervisor of Wells. This shall include obtaining the required permit from the Supervisor of Wells.

which permit shall be provided to the City before the City can grant special use approval under this section. This requirement also applies to, but is not limited to the plugging of wells, the exploring for, producing, marketing, and transporting of petroleum products, and the disposition and removal of any byproducts utilized and associated with said activities.

- I. Associated Permits and Approvals. Special use approval for the drilling, completion, or operation of oil or gas wells or other wells drilled for oil or gas exploration purposes is in addition to and are not in lieu of any permit or plan which may be required by any other provision of the City of Troy Zoning Ordinance, Building and Fire Codes, or by any other governmental agency, unless expressly outlined.
- J. Operations
  1. Permitted Construction Activity Hours. Site preparation and construction of well sites are limited to the hours of 7 am to 8 pm. Construction activities associated with establishing of the well sites may be eligible for an exception by the Building Department in accordance with the City's Special Hours Work Permit if such activities are in compliance with applicable laws and permits.
  2. The movement of drilling rigs, tanker trucks or heavy equipment used in connection with the drilling or operation of oil or gas wells over public roads and streets, shall be consistent with the City's Traffic Engineer's approval, which shall be obtained in advance. The City's Traffic Engineer shall identify the streets which may be used and any conditions that may apply.
  3. All brine, mud, slush, saltwater, chemicals, wastewater, chemical, fluids or waste produced or used in the drilling or production of oil or gas shall be safely, lawfully and properly disposed of to prevent infiltration of or damage to any fresh water well, groundwater, watercourse, pond, lake or wetland.
  4. The oil or gas well site shall be kept in a clean and orderly condition, free of trash and debris, with weeds cut. Machinery and equipment not being used in the operation of the well shall not be stored or kept at the well site.
  5. An oil or gas well shall include measures or controls satisfactory to the City Engineer to prevent migration, run-off or discharge of any hazardous materials, including but not limited to any chemicals, oil or gas produced or used in the drilling or production of oil or gas, to adjoining property or to the City of Troy sanitary sewer system, stormwater system or any natural or artificial watercourse, pond, lake or wetland. There shall be no off-site discharge of storm water except to an approved drainage system in accordance with the City's engineering requirements.
- K. Inspection. The Building Official, and any other designee of the City Manager, shall have the right and privilege at any time during the construction phase and any drilling operation to enter upon the premises covered by the special use approval for the purpose of making inspections to determine if the requirements of this section are complied with or the requirements of any other code or ordinance of the City are met.
- L. Injection wells. Injection wells used for brine disposal or other chemicals from production wells or from other sources shall be expressly prohibited within the City.

- M. Pipelines. No operator shall excavate or construct any lines for the conveyance of fuel, water, oil, gas or petroleum liquids on, under, or through the streets, alleys or other properties owned by the City without an easement or right-of-way license from the City.
- N. Submittal Requirements. In addition to submittal requirements for a Site Plan as set forth in Article 8 and Special Use as set forth in Article 9, the following information shall be submitted as part of the application:
1. Environmental Impact Statement. Applicant shall submit an Environmental Impact Statement filed with the Michigan Department of Environmental Quality in connection with a well permit under Part 615 of the Natural Resources and Environmental Protection Act, MCL 524.61501, et seq, and the administrative rules promulgated under Part 615, as amended.
  2. Hydrogeological analysis.
  3. Emergency Response Plan. Pursuant to State and Federal law, the operator shall provide any information necessary to assist the City Emergency Services Department with an emergency response plan and hazardous materials survey establishing written procedures to minimize any hazard resulting from the operation. The Emergency Response Plan should include emergency contact information.
  4. Reclamation Plan. A written statement that describes how the land will be returned to a stable and productive condition post drilling operations.
  5. Operations Plan to include:
    - i. Site ingress/egress
    - ii. Haul Route Map. Vehicle Routes for Truck Traffic. Construction vehicles and commercial trucks, associated with drilling and/or production operations shall be restricted to roads designated by the City Engineer.
    - iii. Hours of Operation. State listed hours of operation.
    - iv. Soil Erosion, Mud and Dust Control Plan.
    - v. Noise Control Plan. Prior to the granting of special use approval and the commencement of operations, the petitioner shall submit a noise management plan, detailing how the equipment used in the drilling, completion, transportation, or production of a well complies with the maximum permissible noise levels of the Zoning Ordinance. If Special Use Approval is granted, the Petitioner shall be responsible for verifying compliance with this section and the noise management plan after the installation of the equipment. The noise management plan shall:
      - i. Identify operational noise impacts
      - ii. Provide documentation establishing the ambient noise level prior to construction.
      - iii. Detail how the impacts will be mitigated. In determining noise mitigation, specific site characteristics shall be considered, including but not limited to the following:
        1. Nature and proximity of adjacent development, location, and type
        2. Seasonal and prevailing weather patterns, including wind directions
        3. Vegetative cover on or adjacent to the site

4. Topography
- vi. Odor and Fume Control Plan
  - vii. Pollution Prevention Plan
  - viii. Impact Mitigation Plan
  - ix. Monitoring controls.

### Section 3. Savings

All proceedings pending, and all rights and liabilities existing, acquired or incurred, at the time this Ordinance takes effect, are hereby saved. Such proceedings may be consummated under and according to the ordinance in force at the time such proceedings were commenced. This ordinance shall not be construed to alter, affect, or abate any pending prosecution, or prevent prosecution hereafter instituted under any ordinance specifically or impliedly repealed or amended by this ordinance adopting this penal regulation, for offenses committed prior to the effective date of this ordinance; and new prosecutions may be instituted and all prosecutions pending at the effective date of this ordinance may be continued, for offenses committed prior to the effective date of this ordinance, under and in accordance with the provisions of any ordinance in force at the time of the commission of such offense.

### Section 4. Severability Clause

Should any word, phrase, sentence, paragraph or section of this Ordinance be held invalid or unconstitutional, the remaining provision of this ordinance shall remain in full force and effect.

### Section 5. Effective Date

This amendment to the Zoning Ordinance shall take effect seven (7) days after publication, which shall be published within 15 days of adoption, as required the Michigan Zoning Enabling Act (Act 110 of 2006).

This Ordinance is enacted by the Council of the City of Troy, Oakland County, Michigan, at a regular meeting of the City Council held at City Hall, 500 W. Big Beaver, Troy, MI, on the \_\_\_\_\_ day of \_\_\_\_\_, 2015.

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Dane Slater, Mayor

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Aileen Bittner, City Clerk