Sec. 13-500. Purpose.

The exploration, development, and production of gas in the city and its extraterritorial jurisdiction (ETJ) is an activity which necessitates reasonable regulation to ensure that all property owners, mineral, and otherwise, have the right to peaceably enjoy their property and its benefits and revenues. It is hereby declared to be the purpose of this article to establish reasonable and uniform limitations, safeguards and regulations for present and future operations related to the exploring, drilling, developing, producing, transporting, and storing of gas and other substances produced in association with gas within the city and its ETJ to protect the health, safety, and general welfare of the public; minimize the potential impact to property and mineral rights owners, protect the quality of the environment, and encourage the orderly production of available mineral resources.

Sec. 13-501. Definitions.

All technical industry words or phrases related to the drilling and production of gas wells not specifically defined in this article shall have the meanings customarily attributable thereto by prudent and reasonable gas industry operators. The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Abandonment means "abandonment" as defined by the commission and includes the plugging of the well and the restoration of any well site as required by this article.

Ambient noise level means the all encompassing noise level associated with a given environment, being a composite of sounds from all sources at the location, constituting the normal or existing level of environmental noise at a given location.

Blowout preventer means a mechanical, hydraulic, pneumatic or other device or combination of such devices secured to the top of a well casing, including valves, fittings, and control mechanisms connected therewith, which can be closed around the drill pipe, or other tubular goods which completely close the top of the casing and are designed for preventing blowouts.

Building means any structure used or intended for supporting or sheltering humans for any use or occupancy. The term "building" shall be construed as if followed by the words "or portions thereof."

Contaminant means *a*ny substance capable of causing pollution, including but not limited to smoke, vapors, fumes, acids, alkalis, toxic chemicals, liquids, or gases, drilling fluids including muds, or other irritants.

City means the City of Grand Prairie.

City attorney means the City Attorney of the City of Grand Prairie.

City Code means the Code of Ordinances of the City of Grand Prairie.

Class 1 gas permit means a permit required if the edge of the pad site boundary for the proposed well is to be located within seven hundred (700) feet of a protected use, but no closer than five hundred (500) feet of a protected use. A Class 1 gas permit may require City Council approval.

Class 2 gas permit means a permit required if the edge of the pad site boundary for the proposed well is to be located greater than seven hundred (700) feet of a protected use.

Commission means the state agency that regulates the oil and gas industry.

Completion of drilling, re-drilling and re-working means the date the work is completed for the drilling, re-drilling or re-working and the crew is released by completing their work or contract or by their employer.

Daytime means the period between 7:00 a.m. and 7:00 p.m.

Decibel (dB) means a unit for measuring the intensity of a sound/noise and is equal to 10 times the logarithm to the base 10 of the ratio of the measured sound pressure squared to a reference pressure which is 20 micropascals.

Drilling means digging or boring a new well for the purpose of exploring for, developing or producing gas or other hydrocarbons, or for the purpose of injecting gas, water or any other fluid or substance into the earth.

Drilling equipment means the derrick, together with all parts of and appurtenances to such structure, every piece of apparatus, machinery, or equipment used or erected or maintained for use in connection with drilling.

Drill site means the premises used during the drilling or re-working of a well or wells located there and subsequent life of a well or wells or any associated operation.

Exploration means geologic or geophysical activities, including seismic surveys, related to the search for gas or other subsurface hydrocarbons.

Extraterritorial jurisdiction (ETJ) means the land area outside the city limit boundary as defined by the Local Government Code of the State of Texas that the City has a right to annex at its option.

Fire department means the Fire Department of the City of Grand Prairie.

Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height as established in Article 15 of the City's Unified Development Code.

Forced Pooling shall mean that a hearing under the Mineral Interest Pooling Act is required to pool minerals that could not be done voluntarily as defined in the Texas Natural Resources Code, Chapter 102.

Fracturing means the use of water and additives as stimulants injected into a gas well to split or fracture the formation to improve the productivity of the gas well.

Gas means any fluid, either combustible or noncombustible, which is produced in a natural state from the earth and which maintains a gaseous or rarefied state at standard temperature and pressure conditions and/or the gaseous components or vapors occurring in or derived from petroleum or natural gas.

Gas well means any well drilled, to be drilled, or used for the intended or actual production of natural gas.

Hazardous Materials Management Plan means the hazardous materials management plan and hazardous materials inventory statements required by the Fire Code.

Inspector means the gas inspector, third party agency, or City staff designated by the City Manager of Grand Prairie.

Landfarm means the depositing, spreading or mixing of drill cuttings, drilling fluids, drilling mud, produced water or other drilling waste generated by natural gas drilling process onto the ground.

Lift Compressor means a device that raises the pressure of a compressible fluid (gas) in order to lift gas from the well.

Line Compressor means a device that raises the pressure of a compressible fluid (gas) in order for the gas to be transported through a pipeline.

Nighttime means the period between 7:00 p.m. and 7:00 a.m.

Operation site means the area used for development and production and all operational activities associated with gas after drilling activities are complete.

Operator means, for each well, the person listed on the Commission Form W-1 or Form P-4 for a gas well that is, or will be, actually in charge and in control of drilling, maintaining, operating, pumping, or controlling any well, including, without limitation, a unit operator. If the operator, as herein defined, is not the lessee under a gas lease of any premises affected by the provisions of this article, then such lessee shall also be deemed to be an operator. In the event that there is no gas lease relating to any premises affected by this article, the owner of the fee mineral estate in the premises shall be deemed an operator.

Pad site means the area that is fenced and constructed to contain all drilling related activities, including, but not limited to the drilling rig, pipe rack, generators, pumps, compressors, frac tanks, camper/office trailers, tank batteries, separators, dehydrators, metering stations, equipment storage, and living quarters.

Pad site boundary means the perimeter boundary of the pad site as defined in this article. Pad site boundaries shall be described by a metes and bounds survey included in the gas well permit application. A screening fence is required to be construction along the pad site boundaries in accordance with the requirements of Sec. 13-516 of this article.

Person means both the singular and the plural and means a natural person, a corporation, association, guardian, partnership, receiver, trustee, administrator, executor, and fiduciary or representative of any kind.

Protected Use means a residence, religious institution, public building, hospital/medical building, nursing home, school or public park.

Public building means all buildings used or designed to and intended to be used for the purpose of assembly of persons for such purposes as deliberation, entertainment, amusement, or health care. Public buildings include, but shall not be limited to, theaters, assembly halls, auditoriums, armories, mortuary chapels, dance halls, exhibition halls, museums, gymnasiums, bowling lanes, libraries, skating rinks, courtrooms, restaurants, and hospitals. The determination as to whether a building is classified as a public building shall be at the sole discretion of the Environmental Services Director.

Public park means any land area dedicated to and/or maintained by the city for traditional park-like recreational purposes, but shall not include privately-owned amusement parks or privately-owned or privately-managed golf courses.

Re-drill means re-completion of an existing well by deepening or sidetrack operations extending more than one hundred fifty (150) feet from the existing well bore.

Reduced Emission Completion: Techniques or methods that minimize the release of natural gas and vapors to the environment when a well is being flowed during the completion or re-completion phase of a Barnett Shale well.

Religious institution means any building in which persons regularly assemble for religious worship and activities intended primarily for purposes connected with such worship or for propagating a particular form of religious belief.

Residence means a house, duplex, apartment, townhouse, condominium, mobile home or other building designed for dwelling purposes, including those for which a building permit has been issued on the date the application for a gas well permit is filed.

Re-working means re-completion or re-entry of existing well within the existing bore hole or by deepening or sidetrack operations which do not extend more than one hundred fifty (150) feet from the existing well bore or replacement of well liners or casings.

Right-of-way means public rights-of-way including streets, easements, and other property which is dedicated to the use and benefit of the public.

Rule 37 means the Statewide Spacing Rule found in the Texas Administrative Code, Title 16, Part 1, Chapter 3, Rule §3.37 and to the specific field rules for the Barnett Shale regarding setbacks from lease lines.

School means any public and private, primary and secondary educational facilities providing education up through and including the twelfth grade level and any licensed child care centers.

Street means any street, highway, sidewalk, alley, avenue, recessed parking area, or other public right-of-way, including the entire right-of-way.

Tank means a container, covered or uncovered, used in conjunction with the drilling or production of gas or other hydrocarbons for holding or storing fluids.

Technical advisor means such person(s) familiar with and educated in the gas industry or the law as it relates to gas matters who may be retained from time to time by the city.

Well means a hole or holes, bore or bores, to any horizon, formation, or strata for the purpose of producing gas, liquid hydrocarbon, brine water or sulphur water, or for use as an injection well for secondary recovery, disposal or production of gas, or other hydrocarbons from the earth.

Sec. 13-502. Gas inspector.

(a) The city manager shall designate a gas inspector that shall assist with the enforcement of the provisions of this article. The gas inspector shall have an educational background in the petroleum industry with a background in drilling and production or demonstrate a proven background in the drilling, production, and operation of gas wells. The inspector shall have the authority to issue any orders or directives required to carry out the intent and purpose of this article and its particular provisions. Failure of any

person to comply with any such order or directive shall constitute a violation of this article.

(b) The inspector shall have the authority to enter and inspect any premises covered by the provisions of this article to determine compliance with the provisions of this article and all applicable state and local laws, rules, regulations, standards or directives. Failure of any person to permit access to the inspector shall constitute a violation of this article. The inspector shall conduct periodic inspections at least once a year of all permitted wells in the city and its ETJ to determine that the wells are operating in accordance within proper safety parameters as set out in this article and all regulations of the commission. Additionally, the Fire Chief, the Environmental Services Director or their designated representatives shall have the right to enter the site of any oil or gas operation to determine whether the operator is complying with all requirements of this article, or order issued hereunder, or other regulations. Operators shall allow inspecting personnel ready access to all parts of the site for the purposes of inspection, sampling, records examination and copying, and the performance of any additional duties.

(1) Where a site has security measures in force which require proper identification and clearance before entry into its premises, the site operator shall make necessary arrangements with its security guards so that, upon presentation of suitable identification, city personnel will be permitted to enter without delay for the purposes of performing specific responsibilities.

(2) Unreasonable delays in allowing the inspecting or sampling personnel access to the site shall be a violation of this article.

(c) The inspector shall have the authority to request and receive any records, including any records sent to the commission, logs, reports and the like, relating to the status or condition of any permitted well necessary to establish and determine compliance with the applicable gas well permit. Failure of any person to provide any such requested material shall be deemed a violation of this article.

Sec. 13-503. Operator's agent.

Every operator of any well shall designate an agent, who is a resident of the State of Texas, upon whom all orders and notices provided in this article may be served in person or by registered or certified mail. Every operator so designating such agent shall within ten (10) days notify the city secretary in writing of any change in such agent or such mailing address unless operations are discontinued.

Sec. 13-504. Gas well permit required.

(a) A person wanting to engage in and operate in gas production activities shall apply for and obtain a gas well permit under this article and shall indicate what type of gas well permit is requested. It shall be unlawful for any person acting either for himself or acting

as agent, employee, independent contractor, or servant for any person to drill any well, assist in any way in the site preparation, re-working, fracturing, or operation of any such well or to conduct any activity related to the production of gas without first obtaining a gas well permit issued by the city in accordance with this article. Such activities include, but are not limited to re-working, initial site preparation, drilling, operation, construction of rigs or tank batteries, fracturing and pressurizing.

(b) Operator must apply for and obtain a gas well permit for the drilling, re-drilling, deepening, re-entering, activating, or converting of each well. The operator may apply for and obtain a gas well permit for more than one (1) well if multiple wells are located on the same pad site. If the permit setback classification changes prior to the initiation of the drilling of a well under a permit, then the applicant shall be required to submit a permit amendment. The well shall be required to meet all of the requirements for the new setback classification, except that the well shall be required to meet the protected use setbacks that were in effect at the time of the original permit for the pad site.

If the operator wishes to add wells after a permit has been issued for a pad site, the operator must submit an amended permit application and receive a permit for the additional wells. If the permit setback classification changes prior to the application for the permit amendment to add additional wells, the additional wells shall be required to meet all of the requirements for the new setback classification, except that the wells shall be required to meet the protected use setbacks that were in effect at the time of the original permit for the pad site.

(c) A gas well permit shall not constitute authority for the re-entering and drilling of an abandoned well. An operator shall obtain a new gas well permit in accordance with the provisions of this article if the operator is re-entering and drilling an abandoned well.

(d) When a gas well permit has been issued to the operator for the drilling, re-drilling, deepening, re-entering, activating, or converting of a well, such gas well permit shall constitute sufficient authority for drilling, operation, production gathering or production maintenance, repair, re-working, testing, plugging and abandonment of the well and/or any other activity associated with mineral exploration at the site of such well, provided, however, that a new or supplemental permit shall be obtained before such well may be reworked for purposes of re-drilling, deepening or converting such well to a depth or use other than that set forth in the then current permit for such well.

(e) If the Commission permit expires prior to the drilling of any well, the City permit shall be temporarily suspended until such time as the operator submits a permit amendment with a valid Commission permit. If a Commission permit is amended, the operator shall submit a copy of the revised permit to the City's Environmental Services Department within seventy-two (72) hours of approval by the Commission.

(f) A gas well permit shall automatically terminate, unless extended, if drilling is not commenced within one hundred eighty (180) days from the date of the issuance of the gas well permit. Drilling must commence within one hundred eighty (180) days from the

date of the issuance of the gas well permit on at least one (1) well under a permit, as described in section 13-504(b) in order to maintain the validity of the gas well permit for the multiple wells. A gas well permit may be extended by the inspector for an additional one hundred eighty (180) days upon request by the operator and proof that the classification of the requested gas well permit for such location has not changed.

For gas drilling permit applications received after January 18, 2011, all initial drilling activities shall be required to cease five (5) years from the date of permit issuance for the initial gas well for a particular pad site. Any permits that contain authorization for the drilling of gas wells that are not drilled within this timeframe shall be modified by the city to remove any reference to the undrilled gas wells. An operator may apply for a one time two (2) year administrative extension from the City's Environmental Services Director. The Environmental Services Director shall be authorized to require such measures as necessary to minimize the impact of the additional drilling activities upon neighboring properties as a condition of the approval of the administrative extension. Any additional extension requests or the appeal of a denial of an administrative extension shall require City Council approval in accordance with Section 13-510. Extension requests, whether administrative or requiring City Council approval, shall be requested in writing at least six (6) months prior to any drilling permit expiration date. Any rework or re-frac operations shall comply with this article.

(g) The gas well permits required by this article are in addition to and are not in lieu of any permit which may be required by any other provision of this article or by any other governmental agency.

(h) No gas well permit shall be issued for any well to be drilled within any public park without the prior consent of the city council. The city council shall review the insurance and security requirements on an individual basis prior to issuing the permit.

(i) No gas well permit shall be issued for any well to be drilled within any floodway. No gas well permit shall be issued for any well to be drilled within 100 feet of any type of surface water conveyance, including, but not limited to, creeks, streams, lakes, ponds, drainage ditches, or other constructed storm water conveyance systems. Wells sites proposed to be installed within the 100 year floodplain shall have approval of the Engineering Division and, where applicable, the U.S. Army Corps of Engineers. Such well sites shall take such measures, as required by the Engineering Division, to protect the sites from damage from potential flooding. The Engineering Division shall require the following conditions of approval for the issuance of gas well permits located within floodplain areas:

(1) A floodplain permit, including compliance with all requirements contained in Article 15 of the City's Unified Development Code and, where applicable, a Corridor Development Certificate must be obtained from the Engineering Division.

(2) Production facilities must be placed on elevated painted platforms designed by a registered professional engineer to withstand the

hydrodynamic forces associated with the maximum velocity of a flood occurrence up to a 100-year flood event and be approved by the City.

(3) A drilling and production bond must remain in place until the platform is removed.

(4) The tanks shall be limited to eight feet in height and painted of a neutral color compatible with surrounding uses. Neutral colors shall include sand, gray and unobtrusive shades of green, blue or brown, or other neutral colors approved by the inspector.

(5) All well bores and platforms located within the Trinity River floodplain area must be at least 500 feet from the top of the Trinity River bank.

(6) A signed maintenance agreement supplied by the city that provides that the operator shall maintain all flood protection components of the project and shall ensure that the conveyance capacity of the channel as it is impacted by the project is maintained at all times.

(j) No gas well permit shall be issued for any well to be drilled on city owned property without the prior consent of the city council. The city council shall review the insurance and security requirements on an individual basis prior to issuing the permit and/or executing lease agreements.

(k) By acceptance of any gas well permit issued pursuant to this article, the operator expressly stipulates and agrees to be bound by and comply with the provisions of this article. The terms of this article shall be deemed to be incorporated in any gas well permit issued pursuant to this article with the same force and effect as if this article was set forth verbatim in such gas well permit.

(l) By acceptance of any gas well permit, the operator is required to make notification to the City and to the City's Gas Well Inspector seventy-two (72) hours prior to any drilling, fracturing, gas lifting operations, completions, commencement of production, and any time a work over rig is brought on site.

Sec. 13-505. Gas well permit application and filing fees.

(a) Every application for a gas well permit issued pursuant to this article shall be in writing signed by the operator, or some person duly authorized to sign on his behalf, and filed with the City.

(b) Every application for a gas well permit shall be accompanied by the appropriate application form and permit fee. The following fees shall apply:

Class 1 gas well permit fee per well $10,000

Class 2 gas well permit fee per well…… $7,500

Amended permit.....$1,500

Re-work fee.....$1,000
(If required per Sec. 13-504 (d))

Operator transfer per well.....$1,000

Annual fee (per permitted well).....$2,750

Extension requests (per pad site or fracture pond).....$10,000

The City, at its sole discretion, may elect to utilize a qualified third party to conduct any inspections required by this article or in response to complaints that require professional consultation or field sampling activities. Any fee charges by such third party inspector or the professional consultant shall be the responsibility of the operator and shall be paid to the City upon permitting to be held in escrow, or within thirty (30) days of receipt of an invoice from the City.

Any permit that lapses for nonpayment of the annual permit fee required in this article will be reinstated upon payment of an additional fee of five hundred dollars ($500.00) for each thirty-day period in which the permit has been allowed to lapse.

(c) The application shall include the following information:

(1) The date of the application and type of gas well permit requested.

(2) An accurate metes and bounds description of the leased pad site boundary enclosing the gas operation, the land parcel and the production unit. The name of the geologic formation as used by the commission shall also be included. Property recorded by plat should reference subdivision, block and lot numbers.

(3) Map showing proposed transportation route and road for equipment, chemicals, or waste products used or produced by the gas operation. The map must contain the proposed location(s) of the directional signage at the exit of the pad site.

(4) Proposed well name.

(5) Surface owner names(s) and address(es) of the lease property.

(6) Mineral lessee name and address.

(7) Operator/applicant name and address and if the operator is a (corporation, the state of incorporation, and if the operator is a partnership, the names and addresses of the general partners.

(8) Name and address of individual designated to receive notice.

(9) Name of representative with supervisory authority over all gas operation site activities and a twenty-four-hour phone number.

(10) Location and description of all improvements and structures within one thousand feet (1,000) feet of the well.

(11) Owner and address of each parcel of property within one thousand (1,000) feet of the proposed drill site.

(12) A site plan of the proposed operation site showing the location of all improvements and equipment, including the location of the proposed well(s) and other facilities, including, but not limited to, tanks, pipelines, compressors, separators, and storage sheds.

(13) The name, address and twenty-four-hour phone number of the person to be notified in case of an emergency.

(14) The exact and correct acreage and number of wells, if applicable, included in the gas well permit application.

(15) Copies of all reports required by the commission.

(16) A Waste Disposal Plan to include disposal methods for drilling muds and cuttings, fracturing fluids, flow back water, produced water, solid waste, and any other materials from operations on the pad site. The plan must include treatment and disposal options considered. If a disposal or an injection method is included, submittal of a Commission Underground Injection control permit number is required. If the plan includes disposal at an authorized landfill, a copy of the location and permit is required.

(17) A description of public utilities required during drilling and operation.

(18) A copy of the agreement with the owner/operator of the water source to be used during drilling and fracturing operations.

(19) A copy of the approved commission permit to drill together with attachments and survey plats which are applicable to the drill and operation sites. All pooling certificates must be attached.

(20) A copy of the determination by the state regulatory agency of the depth of useable quality ground water.

(21) Evidence of insurance and security requirements under this article.

(22) A statement, under oath, signed by the operator, or designated representative, that the information submitted with the application is, to the best knowledge and belief of the operator or designated representative, true and correct.

(23) All required application and gas well permit fees.

(24) A copy of an erosion control plan pursuant to the City's Design Criteria and Construction Standards Manual.

(25) A copy of the hazardous materials management plan as required by the City's Fire Marshall's office.

(26) A copy of an emergency response plan as required by the City's Fire Marshall's office.

(27) A copy of a noise abatement study as required by the City's Environmental Services Director.

(28) A copy of a dust control plan as required by the City's Environmental Services Director.

(29) A copy of the driveway approach design and a copy of the permit application as required by the City Engineer.

(30) A copy of the private road design as required by the City Engineer.

(31) A site plan on an aerial map that indicates the distances of all applicable set-backs to structures, protected uses, freshwater wells, water bodies, public streets, and all other applicable set-backs.

(32) A copy of a contract with the City's authorized solid waste hauler.

(33) A report detailing all private water wells within 1,000 feet of the pad site boundary and method for which such information was obtained. The failure to identify any non-registered well will not be considered a violation of this article if the operator includes a private well information request as part of the well application notices required by this article.

(34) A vector control plan that details all measures that will be taken to ensure that any fracture pond will not become a site for mosquito harborage. The plan shall list all planned measures for mosquito abatement activities, including any biological/chemical control applications or water level control measures.

(35) A Leak Detection and Compliance Plan to ensure all site activities and equipment are in compliance with applicable rules and regulations. This plan should outline methodology to assess and evaluate the impact of drilling, fracturing, production, and other activities at the padsite and immediate surroundings. Specific elements shall include, but is not be limited to: a quarterly leak detection monitoring program, methods and equipment for emission measurements, and a response plan to address issues, if they arise, and any other information as required by the Environmental Services Director. Monitoring shall include evaluation of potential impact to air, soil, surface water, or groundwater. Quarterly reporting of the monitoring results to the Environmental Services Department is required with all laboratory data sheets, field logs, data summaries, and actions taken in the previous period. The plan must be created in accordance with the Environmental Services Department Guidelines.

(36) A Pipeline Map indicating the location of the nearest gathering station and the alignment of the pipeline(s) connecting the Operation Site to the Gathering Stations.

(37) Any other items required by the City's Environmental Services Director.

Sec. 13-506. Gas well permit classifications

(a) The following gas well permit classifications shall be established by this article:

(1) Class 1 gas well permit.

(2) Class 2 gas well permit.

Sec. 13-507. Class 1 gas well permit.

(a) Class 1 gas well permit shall be required if the boundary line of the pad site for the proposed well is to be located within seven hundred (700) feet of a protected use for which a building permit has been issued on or prior to the date the application for a permit is filed.

For the purpose of a Class 1 gas well permit, the measurement of the seven hundred (700) foot distance shall be made from the proposed pad site boundary line, in a straight line, without regard to intervening structures or objects, to the closest exterior point of the building. City Council approval may be required as described in 13-507(c).

(b) *Application requirements.* An application for a Class 1 gas well permit shall include the following information:

(1) All the requirements of section 13-505 of this article;

(2) A detailed site plan that includes all the information required in section 13-505, but also includes specific details to the projected location of the major components of the drilling site, impacted vegetation, creeks and other topographic features, adjacent building and other structures and the measured distance from the well site to these buildings and structures, temporary, and permanent fencing and landscaping.

(c) *Wells setbacks for Class 1 gas well permit.*

(1) *Non-park protected uses.* It shall be unlawful to drill any well, the proposed pad site boundary line of which, is located within seven hundred (700) feet from any existing protected use or where a building permit for a protected use has been issued prior to the drilling permit application filing date. The distance shall be calculated from the proposed pad site boundary line, in a straight line, without regard to intervening structures or objects, to the closest exterior point of the building. This setback may be reduced to no less than five hundred (500) feet if 70% of the affected owners of protected uses within seven hundred (700) feet of the proposed pad site boundary line sign an approved waiver and with approval of the Environmental Services Director. Alternatively, a variance may be obtained from the City Council in accordance with Section 13-510(f).

(2) *Public Parks.* It shall be unlawful to drill any well, the proposed pad site boundary line of which, is located within one thousand (1,000) feet from any public park unless prior consent is obtained from the Parks and Recreation Director or the City Council in accordance with the following procedures:

a. The Parks and Recreation Director or his designee shall review any applications for pad sites of wells that are proposed to be within one thousand (1,000) feet from any public park. The Parks and Recreation Director or his designee may approve the location of pad sites of wells closer than one thousand (1,000) feet from any public park. This setback may be reduced to no less than three hundred (300) feet. If the Parks and Recreation Director or his designee disapproves an application reviewed under this section, then the application shall be processed for City Council review in accordance with Section 13-510 (f).

b. The Parks and Recreation Director may stipulate conditions and mitigation measures that must be met by the operator. These conditions shall be designed to limit the impact of well development and operations upon park operations and/or

compensate the city for any negative financial impacts. The conditions may include, but are not limited to, limits on the timing of drilling/fracturing operations and additional requirements to limit the impact of noise, dust or other environmental factors. These conditions and mitigation measures shall become permit conditions and are enforceable under this article. The failure of the operator to comply with these permit requirements is subject to criminal prosecution, civil action and/or permit revocation.

(d) Notice for Class 1 well permits.

(1) At least ten (10) days prior to the date of filing of an application for a Class 1 gas well permit, the operator shall notify, at the expense of the operator, each surface owner of property, as shown by the current tax roll, within one thousand (1,000) feet of the proposed pad site boundary line not owned by or under lease to the operator. Such notice, as outlined below, shall be by depositing the same, properly addressed and postage paid, in the United States mail. The operator shall file with the application an affidavit showing the name and last known address, as identified by the current tax roll, of each owner of property to whom notice was mailed and the names of each owner of property to whom notice is required to be given, but whose address is unknown. Notice shall be sent to all registered neighborhood associations and registered public improvement districts within one mile of the proposed pad site boundary line.

(2) At least ten (10) days prior to the date of filing of an application for a Class 1 gas well permit, the operator shall publish a copy of the notice as outlined below, at the expense of the operator, in one (1) issue of a daily newspaper approved by the Environmental Services Director for ten (10) consecutive days. An affidavit by the printer or publisher of the newspaper indicating publication of the notice shall be filed with the application and will be prima facie evidence of such publication. The notice shall read as follows:

> "Notice is hereby given that, acting under and pursuant to the Ordinances of the City of Grand Prairie, Texas, on the _____ day of _____, 20_____, _____ will file with the City of Grand Prairie, an application to drill, complete and operate a well for gas upon property located at _____, _____ County, Grand Prairie, Texas, more particularly shown on the map of record in Volume _____, Page _____, Plat records of _____ County, Texas or per Tax Tract Number _____, _____ County, Texas.

(3) At least ten (10) days prior to the date of filing of an application for a Class 1 gas well permit, the operator, at operator's expense, shall erect at least one (1) sign, no less than three (3) feet by three (3) feet, upon the premises upon which an Class 1 gas well permit has been requested. Where possible, the sign or signs shall be located in a conspicuous place or places upon the property at a point or points nearest any right-of-way, street, roadway or public thoroughfare adjacent to such property.

a. The sign(s) shall substantially indicate that a Class 1 gas well permit to drill for gas has been requested and shall further set forth that additional information can be acquired by telephoning the operator at the number indicated on the sign.

b. The continued maintenance of any such sign(s) shall not be deemed a condition precedent to the holding of any public hearing or to any other official action concerning this article.

c. Any sign(s) shall be removed subsequent to final action by the inspector or the city council.

(4) All notice provisions contained herein shall be deemed sufficient upon substantial compliance with this section.

(e) Enclosure requirements for Class 1 gas well permit shall be required in accordance with Sec. 13-516 of this article.

(f) *Tank specifications for Class 1 gas well permit.* All tanks and permanent structures shall conform to the American Petroleum Institute (A.P.I.) specifications unless other specifications are approved by the fire chief. The top of the tanks shall be no higher than eight (8) feet above the terrain surrounding the tanks. All tanks shall be set back pursuant to the standards of the commission and the National Fire Protection Association, but in all cases, shall be at least twenty-five (25) feet from any public right-of-way or property line.

(g) All other provisions outlined in this article shall be required.

Sec. 13-508. reserved.

Sec. 13-509. Class 2 gas well permit.

(a) A Class 2 gas well permit shall be required if the boundary line of the pad site for the proposed well is located greater than seven hundred (700) feet of a protected use.

(b) *Notice for Class 2 gas well permit.*

(1) At least ten (10) days prior to the date of filing of an application for a Class 2 gas well permit, the operator shall publish a copy of the notice as outlined below, at the expense of the operator, in one (1) issue of a daily newspaper approved by the Environmental Services Director for ten (10) consecutive days. An affidavit by the printer or publisher of the newspaper indicating publication of the notice shall be filed with the application and will be prima facie evidence of such publication. The notice shall read as follows:

> "Notice is hereby given that, acting under and pursuant to the Ordinances of the City of Grand Prairie, Texas, on the _____ day of _____, 20_____, _____ will file with the City of grand Prairie, an application to drill, complete and operate a well for gas upon property located at _____, _____ County, Grand Prairie, Texas, Lot No. _____, Block No. _____, City of Grand Prairie, Texas, more particularly shown on the map of record in Volume _____, Page _____, Plat records of _____ County, Texas or per Tax Tract Number _____, _____County, Texas."

(2) At least ten (10) days prior to the date of filing an application for a Class 2 gas well permit, the operator shall erect at least one (1) sign, no less than three (3) feet by three (3) feet, upon the premises upon which a Class 2 gas well permit has been requested. Where possible, the sign or signs shall be located in a conspicuous place or places upon the property at a point or points nearest any right-of-way, street, roadway or public thoroughfare adjacent to such property.

a. The sign(s) shall substantially indicate that a Class 2 gas well permit to drill for gas has been requested and shall further set forth that additional information can be acquired by telephoning the operator at the number indicated on the sign.

b. The continued maintenance of any such sign(s) shall not be deemed a condition precedent to the holding of any public hearing or to any other official action concerning this article.

c. Any sign(s) shall be removed subsequent to final action by the inspector or the city council.

(3) All notice provisions contained herein shall be deemed sufficient upon substantial compliance with this section.

(c) Enclosure requirements for Class 2 gas well permit shall be required in accordance with Sec. 13-516 of this article.

(d) *Tank specifications for Class 2 gas well permit.* All tanks and permanent structures shall conform to the American Petroleum Institute (A.P.I.) specifications unless other specifications are approved by the fire chief. The top of the tanks shall be no higher than fifteen (15) feet above the terrain surrounding the tanks. All tanks shall be set back pursuant to the standards of the commission and the National Fire Protection Association, but in all cases, shall be at least twenty-five (25) feet from any public right-of-way or property line.

(e) All other provisions outlined in this article shall be required.

Sec. 13-510. Issuance of gas well permits.

(a) It is the responsibility of the inspector to review and approve or disapprove all applications for gas well drilling permits based on the criteria established by this article. The inspector, after the filing of a completed application and remittance of all fees, insurance and security per the requirements of this article for a gas well permit, shall determine whether or not the application complies in all respects with the provisions of this article and determine if the proposed well to be drilled or the facility to be installed is in compliance with the distance requirements for the requested gas well permit on the date the completed application.

(b) The provisions of this article shall apply to any dwellings or buildings for which an application for a building permit has been submitted on the date the application for a gas well permit is filed with the City.

(c) If all the requirements of this article are met, the inspector shall issue a gas well permit for the drilling of the well or the installation of the facilities applied for.

(d) If the inspector denies a gas well permit application for reasons other than lack of required distance or permit expiration as set out in this article for the requested gas well permit, the City shall notify the operator in writing of such denial stating the reasons for the denial. Within thirty (30) days of the date of the written decision of the inspector to deny the gas well permit, the operator may: 1) cure those conditions that caused the denial and resubmit the application to the inspector for approval and issuance of the gas well permit; or 2) file a written appeal of such action or decision to the city manager. The city manager may prescribe conditions and/or procedures for perfecting an appeal.

(e) If the inspector determines that all of the provisions of this article have been complied with by the operator, but that the proposed drill site does not comply with the distance requirements of this article under the requested gas well permit, the inspector shall notify the operator. The operator may revise the permit to comply with the distance requirements or request a variance from the distance requirements.

(f) City Council Hearing

(1) Within forty-five (45) days of the completion of the review process for an application requiring City Council approval under this article, the inspector shall request the city secretary to place the matter on the City Council agenda for a public hearing and give notice by mail of the time, place and purpose thereof to the applicant and any other party who has requested in writing to be so notified.

(2) At least twenty (20) days, and no more than thirty (30) days prior to the date of the public hearing before the city council for a gas well permit requiring City Council approval under this article, operator shall notify, at operator's expense, each surface owner of property, as shown by the current tax roll, within one thousand (1,000) feet of the proposed well not owned by or under lease to the operator and the hearing date and time. Such notice, as outlined below, shall be by depositing the same, properly addressed and postage paid, in the United States mail. The operator shall file an affidavit showing the name and last known address, as identified by the current tax roll, of each owner of property to whom notice was mailed and the names of each owner of property to whom notice is required to be given, but whose address is unknown. Notice shall be sent to all registered neighborhood associations and registered public improvement districts within one mile of the proposed pad site boundary.

(3) At least fifteen (15) days, and no more than twenty (20) days prior to the date of the public hearing before City Council, the operator shall publish a copy of the notice as outlined below, at operator's expense, in one (1) issue of a daily newspaper approved by the Environmental Services Director for ten (10) consecutive days. An affidavit by the printer or publisher of the newspaper indicating publication of the notice shall be filed with the application and will be prima facie evidence of such publication. The notice shall read as follows:

> "Notice is hereby given that, acting under and pursuant to the Ordinances of the City of Grand Prairie, Texas, on the _____day of _____, 20_____,_____ filed with the City of Grand Prairie, an application for a gas well permit requiring a distance variance to Article XIX. Gas Drilling and Production, of the Code of Ordinances of the City of Grand Prairie to drill, complete and operate a well for gas upon property located at _____, _____ County, Grand Prairie, Texas, more particularly shown on the map of record in Volume Page _____, Plat records of _____ County, Texas or per Tax Tract Number _____, _____ County, Texas. The City Council will conduct a public hearing on the request for said permit on the _____ day of _____, 20_____ at _____ o'clock _____.m. in the City Council

Chambers located at City Hall Plaza, 317 West College Street, Grand Prairie, Texas."

(4) At least twenty (20) days prior to the date of the public hearing before City Council, the operator shall, at operator's expense, erect at least one (1) sign, no less than three (3) feet by three (3) feet, upon the premises upon which a gas well permit has been requested. Where possible, the sign or signs shall be located in a conspicuous place or places upon the property at a point or points nearest any right-of-way, street, roadway, or public thoroughfare adjacent to such property.

a. The sign(s) shall substantially indicate that a gas well permit to drill for gas has been requested and state the date, time and place of the public hearing, and shall further set forth that additional information can be acquired by telephoning the applicant/operator at the number indicated on the sign.

b. The continued maintenance of any such sign(s) shall not be deemed a condition precedent to the holding of any public hearing or to any other official action concerning this article.

c. Any sign(s) shall be removed subsequent to final action by the City Council.

(5) All notice provisions contained herein shall be deemed sufficient upon substantial compliance with this section.

(6) After a permit application requiring City Council approval under this article is submitted, the inspector shall evaluate the public impact of the proposed activity. The inspector shall consider the proposed site and the proposed operations or drilling program and shall draft recommended additional restrictions or conditions, including minimum separation distance for drilling or other operations, special safety equipment and procedures, recommended noise reduction levels, screening and any other requirements the inspector deems appropriate. The recommendation shall be submitted to the City Council for consideration prior to the public hearing.

(7) At the public hearing and before the City Council considers the merits of the application and the recommendations of the inspector, the applicant/operator shall provide evidence of a certificate of publication establishing timely publication of the notice of the hearing, that timely actual notice of the hearing was given to all persons as required by this article and that the applicant/operator has otherwise complied with or satisfied all other requirements of this article, including full and complete compliance with the insurance and security requirements.

(8) The burden of proof on all matters considered in the hearing shall be upon the applicant/operator.

(9) The city council shall review the application and any other related information. The City Council shall consider the following in deciding whether to grant, reject, or modify a gas well permit requiring City Council approval under this article:

a. Whether the operations proposed are reasonable under the circumstances and conditions prevailing in the area considering the particular location and the character of the improvements located there;

b. Whether the drilling of such wells would conflict with the orderly growth and development of the city and its ETJ;

c. Whether there are other alternative well site locations;

d. Whether the operations proposed are consistent with the health, safety and welfare of the public when and if conducted in accordance with the gas well permit conditions to be imposed;

e. Whether there is accessible access for the city fire personnel and fire fighting equipment; and

f. Whether the impact upon the adjacent property and the general public by operations conducted in compliance with the gas well permit conditions are reasonable and justified, balancing the following factors:

1. The right of the owners(s) of the mineral estate to explore, develop, and produce the minerals; and

2. The availability of alternative drill sites.

g. The recommendations of the inspector.

h. Whether any request for the extension of a gas drilling permit or for the continued use of a fracture pond is reasonable and will not have a negative impact upon surrounding properties.

(10) The setback distance may be varied by the City Council after a public hearing. A reduction of the setback distance to less than seven hundred (700) feet, but to no less than five hundred (500) feet from a protected use may only be approved by the affirmative vote of not less than two-thirds

(2/3) of all the members of the City Council. If the only protected use within one thousand (1,000) feet of the pad site boundary is a city park, the City Council may approve a reduction of the setback distance to no less than three hundred (300) feet with an affirmative vote two-thirds (2/3) of all the members of the Council. Other setback requirements contained in Section 13-515 shall be enforced unless altered by the City Council. For protection of the public health, safety and welfare, the City Council may impose additional requirements for a reduction of such distance.

(11) The term of a gas drilling permit may be extended or the continued use of a fracture pond may be approved with a vote of the City Council.

(g) In making its decision, the City Council shall have the power and authority to refuse any gas well permit to drill any well at any particular location within the city or its ETJ, when by reason of such particular location and other characteristics, the drilling of such wells at such particular location would be injurious to the health, safety or welfare of the inhabitants in the immediate area of the drill site.

(h) If the operator elects not to accept the gas well permit under the terms and conditions imposed by the city council and wishes to withdraw his application, the operator must notify the inspector in writing of his decision.

Sec. 13-511. Amended gas well permits.

(a) An operator may submit an application to the inspector to amend an existing gas well permit to commence drilling from a new drill site that is not shown on (or incorporated by reference as part of) the existing gas well permit, to relocate a drill site or operation site that is shown on (or incorporated by reference as part of) the existing gas well permit, or to otherwise amend the existing gas well permit.

(b) Applications for amended gas well permits shall be in writing, shall be signed by the operator, and shall include the following:

(1) The application fee as set by Section 13-505;

(2) A description of the proposed amendments;

(3) Any changes to the information submitted with the application for the existing gas well permit (if such information has not previously been provided to the city);

(4) Such additional information as is reasonably required by the inspector to demonstrate compliance with the applicable gas well permit; and

(5) Such additional information as is reasonably required by the inspector to prevent imminent destruction of property or injury to persons.

(c) If the activities proposed by the amendment are materially different from the activities covered by the existing gas well permit, and if the proposed activities are in conformance with the applicable gas well permit, then the inspector shall approve the amendment. If, however, the activities proposed by the amendment are materially different and, in the judgment of the inspector, might create a risk of imminent destruction of property or injury to persons that was not associated with the activities covered by the existing gas well permit or that was not otherwise taken into consideration by the existing gas well permit, the inspector may require the amendment to be processed as a new gas well permit application.

(d) The decision of the inspector to deny an amendment to a gas well permit shall be provided to the operator in writing, including an explanation of the basis for the decision. The operator may appeal any such denial by filing a written appeal of such action or decision to the city manager within ten (10) working days. The city manager may prescribe conditions and/or procedures for perfecting an appeal.

Sec. 13-512. Suspension or revocation of gas well permit; effect.

(a) If an operator (or its officers, employees, agents, contractors, or representatives) fails to comply with any requirement of a gas well permit (including any requirement incorporated by reference as part of the gas well permit), the inspector may give written notice to the operator specifying the nature of the failure and giving the operator a reasonable time to comply, taking into consideration the nature and extent of the failure, the extent of the efforts required to comply, and the potential impact on the health, safety, and welfare of the community.

(b) If, the operator fails to correct the noncompliance, the inspector may suspend or revoke the gas well permit pursuant to the provisions of this article.

(c) No person shall carry on any operations performed under the terms of the gas well permit issued under this article during any period of any gas well permit suspension or revocation or pending a review of the decision or order of the city in suspending or revoking the gas well permit. Nothing contained herein shall be construed to prevent the necessary, diligent and bona fide efforts to resolve and remedy the default or violation for which the suspension or revocation of the gas well permit was ordered for the safety of persons or as required by the commission.

(d) If the operator does not resolve the noncompliance within the time specified in this article, the inspector, upon written notice to the operator, may notify the commission and request that the commission take any appropriate action.

(e) Operator may, within thirty (30) days of the date of the decision of the inspector in writing to suspend or revoke a gas well permit, file a written appeal of such action or decision to the city manager. The city manager may prescribe conditions and procedures for perfecting an appeal.

(f) If an application for a gas well permit is denied by the inspector, nothing herein contained shall prevent a new permit application from being submitted to the inspector for the same well.

Sec. 13-513. Periodic reports.

(a) The operator shall notify the inspector of any changes to the following information within one (1) business week after the change occurs:

(1) The name, address, and phone number of the operator;

(2) The name, address, and phone number of the person designated to receive notices from the city (which person must a resident of Texas that can be served in person or by registered or certified mail); and

(3) The operator's emergency action response plan (including "drive-to-maps" from public rights-of-way to each drill site).

(b) The operator shall notify the inspector of any change to the name, address, and twenty-four-hour phone number of the person(s) with supervisory authority over drilling or operations activities within one (1) business day.

(c) The operator shall provide a copy of any "incident reports" or written complaints submitted to the Commission within thirty (30) days after the operator has notice of the existence of such reports or complaints.

(d) Beginning on December 31st after each well is completed, and continuing on each December 31st thereafter until the operator notifies the inspector that the well has been abandoned and the site restored, the operator shall submit a written report to the inspector identifying any changes to the information that was included in the application for the applicable gas well permit that have not been previously reported to the city.

Sec. 13-514. Bond, letters of credit, indemnity, insurance.

(a) *General requirements.* The operator shall be required to:

(1) Comply with the terms and conditions of this article and the gas well permit issued hereunder.

(2) Promptly clear drill and operation-sites of all litter, trash, waste and other substances used, allowed, or occurring in the operations, and after abandonment or completion grade, level and restore such property to the same surface conditions as nearly as possible as existed before operations.

(3) Indemnify and hold harmless the city, its officers, agents, and employees from and against any and all claims, losses, damages, causes of action, suits and liability of every kind, including all expenses of litigation, court costs, and attorney's fees, for injury to or death of any person or for damage to any property arising out of or in connection with the work done by operator under a gas well permit:

a. Where such injuries, death or damages are caused by operator's sole negligence or the joint negligence of operator and any other person or entity; and

b. Regardless of whether such injuries, death or damages are caused in whole or in part by the negligence of operator.

(4) Promptly pay all fines, penalties and other assessments imposed due to breach of any terms of the gas well permit.

(5) Promptly restore to its former condition any public property damaged by the gas operation.

(b) *Bond, irrevocable letter of credit.*

(1) Prior to the issuance of a gas well permit the operator shall provide the inspector with a security instrument in the form of a bond or an irrevocable letter of credit as follows:

a. Bond. A bond shall be executed by a reliable bonding or insurance institution authorized to do business in Texas, acceptable to the city. The bond shall become effective on or before the date the gas well permit is issued and shall remain in force and effect for at least a period of six (6) months after the expiration of the gas well permit term or until the well is plugged and abandoned and the site is restored, whichever occurs first. The operator shall be listed as principal and the instrument shall run to the city, as obligee, and shall be conditioned that the operator will comply with the terms and regulations of this article and the city. The original bond shall be submitted to the inspector with a copy of the same provided to the city secretary.

b. Letter of credit. A letter of credit shall be issued by an FDIC insured bank authorized to do business in Texas and shall become effective on or before the date the gas well permit is issued. The letter of credit shall remain in force and effect for at least a period of six (6) months after the expiration of the gas well permit term. If the letter of credit is for a time period less than the life of the well as required by this article, the operator must renew the letter of

credit or replace the letter of credit with a bond in the amount required by this article, on or before forty-five (45) days prior to the expiration date of the letter of credit. If the operator fails to deliver to the City of Grand Prairie either the renewal letter of credit or replacement bond in the appropriate amount on or before forty-five (45) days prior to the expiration date of the letter of credit, the City of Grand Prairie may draw the entire face amount of the attached letter of credit to be held by the City of Grand Prairie as security for operator's performance of its obligations under this article. The city shall be authorized to draw upon such letter of credit to recover any fines or penalties assessed under this article. Evidence of the execution of a letter of credit shall be submitted to the inspector by submitting an original signed letter of credit from the banking institution, with a copy of the same provided to the city secretary.

c. The principal amount of any security instrument shall be fifty thousand dollars ($50,000.00) for any single well. If, after completion of a well, the applicant/operator, who initially posted a fifty thousand dollars ($50,000.00) bond or letter of credit, has complied with all of the provisions of this article and whose well in the producing stage and all drilling operations have ceased, may submit a request to the inspector to reduce the existing security instrument to ten thousand dollars ($10,000.00) for the remainder of the time the well produces without reworking. During reworking operations, the amount of the bond or letter of credit shall be maintained at fifty thousand dollars ($50,000.00).

An operator drilling or reworking between one (1) and five (5) wells at any given time may elect to provide a blanket bond or letter of credit in the principal minimum amount of one hundred fifty thousand dollars ($150,000.00). If the operator drills or reworks more than five (5) wells at a time, the blanket bond or letter of credit shall be increased in increments of fifty thousand dollars ($50,000.00) per each additional well. Once the wells are in the producing stage and all drilling operations have ceased, the operator may elect to provide a blanket bond or letter of credit for the remainder of the time the well produces, without reworking, as follows:

Number of Producing Wells	Blanket Bond/Letter of Credit Amount Required
Up to 75 wells	$100,000
75 to 150 wells	$150,000

More than 150 wells	$200,000

d. Whenever the inspector finds that a default has occurred in the performance of any requirement or condition imposed by this article, a written notice shall be given to the operator. Such notice shall specify the work to be done, the estimated cost and the period of time deemed by the inspector to be reasonably necessary for the completion of such work. After receipt of such notice, the operator shall, within the time therein specified, either cause or require the work to be performed, or failing to do so, shall pay over to the city one hundred twenty-five (125) percent of the estimated cost of doing the work as set forth in the notice. In no event, however, shall the cure period be less than thirty (30) days unless the failure presents a risk of imminent destruction of property or injury to persons or unless the failure involves the operator's failure to provide periodic reports as required by this article. The city shall be authorized to draw against any irrevocable letter of credit or bond to recover such amount due from the operator. Upon receipt of such monies, the city shall proceed by such mode as deemed convenient to cause the required work to be performed and completed, but no liability shall be incurred other than for the expenditure of said sum in hand. In the event that the well has not been properly abandoned under the regulations of the commission, such additional money may be demanded from the operator as is necessary to properly plug and abandon the well and restore the drill site in conformity with the regulations of this article.

e. In the event the operator does not cause the work to be performed and fails or refuses to pay over to the city the estimated cost of the work to be done as set forth in the notice, or the issuer of the security instrument refuses to honor any draft by the city against the applicable irrevocable letter of credit or bond the city may proceed to obtain compliance and abate the default by way of civil action against the operator, or by criminal action against the operator, or by both such methods.

f. When the well or wells covered by said irrevocable letters of credit or bond have been properly abandoned in conformity with all regulations of this article, and in conformity with all regulations of the commission and notice to that effect has been received by the city, or upon receipt of a satisfactory substitute, the irrevocable letter of credit or bond issued in compliance with these regulations shall be terminated and canceled.

(c) *Insurance.* In addition to the bond or letter of credit required pursuant to this article, the operator shall carry a policy or policies of insurance issued by an insurance company

or companies authorized to do business in Texas. In the event such insurance policy or policies are canceled, the gas well permit shall be suspended on such date of cancellation and the operator's right to operate under such gas well permit shall immediately cease until the operator files additional insurance as provided herein.

(1) *General requirements applicable to all policies.*

a. The city, its officials, employees, agents and officers shall be endorsed as an "additional insured" to all policies except employer's liability coverage under the operator's workers compensation policy.

b. All policies shall be written on an occurrence basis.

c. All policies shall be written by an insurer with an A-: VIII or better rating by the most current version of the A. M. Best Key Rating Guide or with such other financially sound insurance carriers acceptable to the city.

d. Deductibles shall be listed on the certificate of insurance and shall be on a "per occurrence" basis unless otherwise stipulated herein.

e. Certificates of insurance shall be delivered to the City of Grand Prairie, Legal Department, 317 West College Street, Grand Prairie, Texas 75053, evidencing all the required coverages, including endorsements, prior to the issuance of a gas well permit.

f. All policies shall be endorsed with a waiver of subrogation providing rights of recovery in favor of the city.

g. Any failure on the part of the city to request required insurance documentation shall not constitute a waiver of the insurance requirement specified herein.

h. Each policy shall be endorsed to provide the city a minimum thirty-day notice of cancellation, non-renewal, and/or material change in policy terms or coverage. A ten (10) days notice shall be acceptable in the event of non-payment of premium.

i. During the term of the gas well permit, the operator shall report, in a timely manner, to the inspector any known loss occurrence which could give rise to a liability claim or lawsuit or which could result in a property loss.

j. Upon request, certified copies of all insurance policies shall be furnished to the city.

(2) *Standard commercial general liability policy.* This coverage must include premises, operations, blowout or explosion, products, completed operations, sudden and accidental pollution, blanket contractual liability, underground resources damage, broad form property damage, independent contractors' protective liability and personal injury. This coverage shall be a minimum combined single limit of one million dollars ($1,000,000.00) per occurrence location for bodily injury and property damage.

(3) *Excess or umbrella liability.* Five million dollars ($5,000,000.00) excess, if the operator has a stand-alone environmental pollution liability (EPL) policy. Ten million dollars ($10,000,000.00) excess, if the operator does not have a stand-alone EPL policy. Coverage must include an endorsement for sudden or accidental pollution. If seepage and pollution coverage is written on a "claims made" basis, the operator must maintain continuous coverage and purchase extended coverage period insurance when necessary.

(4) *Environmental pollution liability coverage.*

a. Operator shall purchase and maintain in force for the duration of the gas well permit, insurance for environmental pollution liability applicable to bodily injury, property damage, including loss of use of damaged property or of property that has not been physically injured or destroyed; cleanup costs; and defense, including costs and expenses incurred in the investigation, defense or settlement of claims; all in connection with any loss arising from the insured site. Coverage shall be maintained in an amount of at least one million dollars ($1,000,000.00) per loss, with an annual aggregate of at least ten million dollars ($10,000,000.00).

b. Coverage shall apply to sudden and accidental pollution conditions resulting from the escape or release of smoke, vapors, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste material or other irritants, contaminants or pollutants.

c. The operator shall maintain continuous coverage and shall purchase extended coverage period insurance when necessary. The extended coverage period insurance must provide that any retroactive date applicable to coverage under the policy precedes the effective date of the issuance of the permit by the city.

(5) *Control of well.* The policy should cover the cost of controlling a well that is out of control, re-drilling or restoration expenses, seepage and pollution damage as first party recovery for the operator and related expenses,

including, but not limited to, loss of equipment, experts and evacuation of residents.

Five million dollars ($5,000,000.00) per occurrence/no aggregate, if available, otherwise an aggregate of ten million dollars ($10,000,000.00).

Five hundred thousand dollars ($500,000.00) sub-limit endorsement may be added for damage to property for which the operator has care, custody and control.

(6) *Workers compensation and employers liability insurance.*

a. Workers compensation benefits shall be Texas Statutory Limits.

b. Employers liability shall be a minimum of five hundred thousand dollars ($500,000.00) per accident.

c. Such coverage shall include a waiver of subrogation in favor of the city and provide coverage in accordance with applicable state and federal laws.

(7) *Automobile liability insurance.*

a. Combined single limit of one million dollars ($1,000,000.00) per occurrence for bodily injury and property damage.

b. Coverage must include all owned, hired and not-owned automobiles.

(8) *Certificates of insurance.*

a. The company must be admitted or approved to do business in the State of Texas, unless the coverage is written by a surplus lines insurer.

b. The insurance set forth by the insurance company must be underwritten on forms that have been approved by the Texas State Board of Insurance or ISO, or an equivalent policy form acceptable to the city, with the exception of environmental pollution liability and control of well coverage.

c. Sets forth all endorsements and insurance coverage according to requirements and instructions contained herein.

d. Shall specifically set forth the notice of cancellation, termination, or change in coverage provisions to the city. All policies shall be endorsed to read

"THIS POLICY WILL NOT BE CANCELED OR NON-RENEWED WITHOUT 30 DAYS ADVANCED WRITTEN NOTICE TO THE OWNER AND THE CITY EXCEPT WHEN THIS POLICY IS BEING CANCELED FOR NONPAYMENT OF PREMIUM, IN WHICH CASE 10 DAYS ADVANCE WRITTEN NOTICE IS REQUIRED."

e. Original endorsements affecting coverage required by this section shall be furnished with the certificates of insurance.

(d) *Indemnification and express negligence provisions.*

(1) Each gas well permit issued by the inspector shall include the following language:

"OPERATOR DOES HEREBY EXPRESSLY RELEASE AND DISCHARGE, ALL CLAIMS, DEMANDS, ACTIONS, JUDGMENTS, AND EXECUTIONS WHICH IT EVER HAD, OR NOW HAS OR MAY HAVE, OR ASSIGNS MAY HAVE, OR CLAIM TO HAVE, AGAINST THE CITY OF GRAND PRAIRIE, AND/OR ITS DEPARTMENTS, AGENTS, OFFICERS, SERVANTS, SUCCESSORS, ASSIGNS, SPONSORS, VOLUNTEERS, OR EMPLOYEES, CREATED BY, OR ARISING OUT OF PERSONAL INJURIES, KNOWN OR UNKNOWN, AND INJURIES TO PROPERTY, REAL OR PERSONAL, OR IN ANY WAY INCIDENTAL TO OR IN CONNECTION WITH THE PERFORMANCE OF THE WORK PERFORMED BY THE OPERATOR UNDER A GAS WELL PERMIT. THE OPERATOR SHALL FULLY DEFEND, PROTECT, INDEMNIFY, AND HOLD HARMLESS THE CITY OF GRAND PRAIRIE, TEXAS, ITS DEPARTMENTS, AGENTS, OFFICERS, SERVANTS, EMPLOYEES, SUCCESSORS, ASSIGNS, SPONSORS, OR VOLUNTEERS FROM AND AGAINST EACH AND EVERY CLAIM, DEMAND, OR CAUSE OF ACTION AND ANY AND ALL LIABILITY, DAMAGES, OBLIGATIONS, JUDGMENTS, LOSSES, FINES, PENALTIES, COSTS, FEES, AND EXPENSES INCURRED IN DEFENSE OF THE CITY OF GRAND PRAIRIE, TEXAS, ITS DEPARTMENTS, AGENTS, OFFICERS, SERVANTS, OR EMPLOYEES, INCLUDING, WITHOUT LIMITATION, PERSONAL INJURIES AND DEATH IN CONNECTION THEREWITH WHICH MAY BE MADE OR ASSERTED BY OPERATOR, ITS AGENTS, ASSIGNS, OR ANY THIRD PARTIES ON ACCOUNT OF, ARISING OUT OF, OR IN ANY WAY INCIDENTAL TO OR IN CONNECTION WITH THE

PERFORMANCE OF THE WORK PERFORMED BY THE OPERATOR UNDER A GAS WELL PERMIT. THE OPERATOR AGREES TO INDEMNIFY AND HOLD HARMLESS THE CITY OF GRAND PRAIRIE, TEXAS, ITS DEPARTMENTS, ITS OFFICERS, AGENTS, SERVANTS, EMPLOYEES, SUCCESSORS, ASSIGNS, SPONSORS, OR VOLUNTEERS FROM ANY LIABILITIES OR DAMAGES SUFFERED AS A RESULT OF CLAIMS, DEMANDS, COSTS, OR JUDGMENTS AGAINST THE CITY, ITS DEPARTMENTS, ITS OFFICERS, AGENTS, SERVANTS, OR EMPLOYEES, CREATED BY, OR ARISING OUT OF THE ACTS OR OMISSIONS OF THE CITY OF GRAND PRAIRIE OCCURRING ON THE DRILL SITE OR OPERATION SITE IN THE COURSE AND SCOPE OF INSPECTING AND PERMITTING THE GAS WELLS INCLUDING, BUT NOT LIMITED TO, CLAIMS AND DAMAGES ARISING IN WHOLE OR IN PART FROM THE NEGLIGENCE OF THE CITY OF GRAND PRAIRIE OCCURRING ON THE DRILL SITE OR OPERATION-SITE IN THE COURSE AND SCOPE OF INSPECTING AND PERMITTING THE GAS WELLS. IT IS UNDERSTOOD AND AGREED THAT THE INDEMNITY PROVIDED FOR IN THIS SECTION IS AN INDEMNITY EXTENDED BY THE OPERATOR TO INDEMNIFY AND PROTECT THE CITY OF GRAND PRAIRIE, TEXAS AND/OR ITS DEPARTMENTS, AGENTS, OFFICERS, SERVANTS, OR EMPLOYEES FROM THE CONSEQUENCES OF THE NEGLIGENCE OF THE CITY OF GRAND PRAIRIE, TEXAS AND/OR ITS DEPARTMENTS, AGENTS, OFFICERS, SERVANTS, OR EMPLOYEES, WHETHER THAT NEGLIGENCE IS THE SOLE OR CONTRIBUTING CAUSE OF THE RESULTANT INJURY, DEATH, AND/OR DAMAGE."

(e) *Notice.* The individual designated to receive notice shall be a resident of Texas upon whom all orders and notices provided in this article may be served in person or by registered or certified mail. Every operator shall within ten (10) days notify the inspector in writing of any change in such agent or mailing address unless operations in the city are discontinued and abandonment is complete.

(f) *Acceptance and indemnity agreement.* The operator who has a net worth of not less than twenty-five million dollars ($25,000,000.00), as shown in such owner's or operator's most recent audited financial statements, may substitute an acceptance and indemnity agreement in lieu of the bond or irrevocable letter of credit and insurance requirements set forth in this article, provided that such acceptance and indemnity agreement shall be in a form acceptable to, and approved by, the city attorney and the director of risk management of the city. Any operator utilizing an acceptance and indemnity agreement shall be required to certify by letter annually prior to December 31st of each year that the operator is still eligible for an acceptance and indemnity agreement. The inspector may request an annual review of the operator's most recent audited financial statements to assure compliance with this section.

Sec. 13-515. Technical Regulations.

(a) *On-site requirements.*

(1) *Blowout prevention.* In all cases, blowout prevention equipment shall be used on all wells being drilled, worked-over or in which tubing is being changed. Protection shall be provided to prevent blowout during gas operations as required by and in conformance with the requirements of the commission and the recommendations of the American Petroleum Institute. The operator must equip all drilling wells with adequate blowout preventers, flow lines and valves commensurate with the working pressures involved as required by the commission.

(2) *Bradenhead gauge.* A bradenhead gauge must be installed at the wellhead prior to first sales.

(3) *Cathodic protection.* Within one hundred eighty (180) days of its completion date, each gas well shall be equipped with a cathodic protection system to protect the production casing from external corrosion. The inspector may approve an alternative method of protecting the production casing from external corrosion.

(4) *Chemical and materials storage.* All chemicals and/or regulated materials shall be stored in such a manner as to prevent, contain, and facilitate rapid remediation and cleanup of any accidental spill, leak, or discharge of a hazardous material. Operator shall have all material safety data sheets (MSDSs) for all hazardous materials on site. All applicable federal and state regulatory requirements for the proper labeling of containers shall be followed. Appropriate pollution prevention actions shall be required and include, but are not limited to, chemical and materials elevated and raised from the ground (e.g., wooden pallets), bulk storage, installation and maintenance of secondary containment systems, and protection from storm water and weather elements.

(5) *Closed-loop drilling fluid systems.* Closed-loop drilling fluid systems shall be used instead of lined reserve pits.

(6) *Compliance.* Operator shall comply at all times with all applicable federal, state and city requirements.

(7) *Discharge.* No person shall place, deposit, discharge, or cause or permit to be placed, deposited or discharged, any oil, naphtha, petroleum, asphalt, tar, hydrocarbon substances, hazardous waste, hazardous materials, regulated materials, or any refuse including wastewater or brine from any gas operation or the contents of any container used in connection with any

gas operation in, into, or upon any public right-of-way, alleys, streets, lots, storm drain, ditch or sewer, sanitary drain or any body of water or any private property in the city. In the event of a suspected release of any chemicals to the environment, the operator must provide at the request of the inspector, a detailed description of the chemical, including, but not limited to, a list of the source chemicals and their specific material safety data sheets, the composition of the chemical by percentage, the composition of any chemicals listed as proprietary on material safety data sheets and copies of any laboratory data that identifies the composition of the chemical. The inspector shall be sole determining individual as to whether a suspected release of chemicals to the environment has occurred. An operator or an operator's subcontractors who fail to provide this information shall be considered to be in violation of this article.

(8) *Drilling Fluids.* Low toxicity glycols, synthetic hydrocarbons, polymers, and esters shall be substituted for conventional oil-based drilling fluids.

(9) *Drill stem testing.* All open hole formation or drill stem testing shall be done during daylight hours. Drill stem tests may be conducted only if the well effluent during the test is produced through an adequate gas separator to storage tanks and the effluent remaining in the drill pipe at the time the tool is closed is flushed to the surface by circulating drilling fluid down the annulus and up the drill pipe.

(10) *Drilling fluid storage pit.* No drilling fluid storage pits shall be located within the city or its ETJ.

(11) *Dust, vibration, odors.* All drilling and production operations, and vehicular traffic related thereto, shall be conducted in such a manner as to minimize, so far as practicable, dust, vibration, or noxious/nuisance odors, and shall be in accordance with the best accepted practices incident to drilling for the production of gas and other hydrocarbon substances in urban areas, as well as all pertinent codes and ordinances of the City of Grand Prairie regulating dust, vibration and odors. All equipment used shall be so constructed and operated so that, vibrations, dust, odor or other harmful or annoying substances or effect will be minimized by the operations carried on at any drilling or production site or from anything incident thereto, to the injury or annoyance of persons living or working in the vicinity; nor shall the site or structures thereon be permitted to become dilapidated, unsightly or unsafe. Proven technological improvements in industry standards of drilling and production in this area shall be adopted as they become available if capable of reducing factors of dust, vibration and odor. A written dust abatement plan shall be submitted with the drilling application. This plan shall detail the best management practices the operator will utilize to prevent the creation of any dust nuisances, including the frequency and information on any planned soil amendments.

The dust control plan for wells with pad site boundaries less than 1,000 feet from protected uses shall contain dust mitigation measures that at a minimum provide for the use of a dust control/soil stabilization agent on all non-paved surfaces. This agent shall be reapplied according to manufacturer recommendations, but no less frequently than annually. Daily watering or equivalent best management practices approved by the City's Environmental Services Director shall be used as necessary. After review of the plan, the City's Environmental Services Director may mandate additional practices the operator shall take to prevent the creation of any dust nuisances.

(12) *Electric lines.* All electric lines to production facilities shall be located in a manner compatible to those already installed in the surrounding area or subdivision.

(13) *Electric motors.* Only electric prime movers or motors shall be permitted for the purpose of pumping wells. No electric power shall be generated on location. All electrical installations and equipment shall conform to the city ordinances and the appropriate national codes.

(14) *Emergency response plan.* Prior to the commencement of any gas or other hydrocarbons production activities, operator shall submit to the inspector an emergency response plan establishing written procedures to minimize any hazard resulting from drilling, completion or producing of gas wells. Said plan shall use existing guidelines established by the commission, the state environmental regulatory agency, Department of Transportation and/or the U.S. Environmental Protection Agency. If a gas well is determined by the Commission to be producing hydrogen sulfide gas (H_2S), the operator shall immediately cease operation of that well or facility and immediately contact the City's Environmental Services Department.

(15) *Equipment painted.* All production equipment on the site shall be painted and maintained at all times, including pumping units, storage tanks, buildings and structures.

(16) *Fire prevention; sources of ignition.* Firefighting apparatus and supplies as approved by the fire department and required by any applicable federal, state, or local law shall be provided by the operator, at the operator's cost, and shall be maintained on the drilling site at all times during drilling and production operations. The operator shall be responsible for the maintenance and upkeep of such equipment. Each well shall be equipped with an automated valve that closes the well in the event of an abnormal change in operating pressure. All well heads shall contain an emergency shut off valve to the well distribution line.

(17) *Flowback Operations.*

a. Flowback operations to recover fluids used during fracture stimulation shall be performed during daytime hours only unless the City and the Gas Well Inspector approves such operations during non-daytime hours.

b. At no time shall the well be allowed to flow or vent directly to the atmosphere without first directing the flow through separation equipment or into a portable tank.

(18) *Fracture Operations.*

a. All formation fracture stimulation operations shall be conducted during daytime hours.

b. At no time shall the well be allowed to flow or vent directly to the atmosphere without first directing the flow through separation equipment or into a portable tank.

c. All fracturing operations shall comply with the Noise Abatement Study.

d. If fracture tanks are utilized for the fracturing operation, such tanks may not be stacked onsite.

(19) *Fracture Ponds.*

a. An operator may request to construct a fracture pond if the distance to the nearest protected use is greater than 500 feet. A fracture pond design plan shall be submitted with the drilling application. This plan shall include an engineering design component and a landscape/fencing design component. Approval may be granted if the following criteria are met:

1. Ponds are encouraged to be incorporated, installed and fenced within the perimeter of the gas well pad site. Above ground surface ponds shall only be allowed if immediately adjacent to the pad site and if landscaped and fenced in compliance with the standards for pad sites. Ponds not immediately adjacent to the gas well site shall only be constructed below the existing ground surface and must be greater than 500 feet from a protected use.

2. The pond shall be designed to permanently hold sufficient water to prevent the creation of any nuisance/vector

problems. A vector control plan shall be submitted with the gas drilling permit application. The operator shall be responsible for implementing all tasks within the approved vector control plan. The presence of mosquito larvae within the fracture pond shall be a violation of this article. As permitted by state law, the pond design shall be in compliance with the City of Grand Prairie's Uniform Development Code Article 14 "Drainage". The application shall include a detail grading plan prepared by a civil engineer licensed in the state of Texas. The pond design shall include measures, such as shallow safety ledges, to prevent drowning accidents. The pond's size shall be designed based on the water supply to minimize the pond's footprint.

3. No artificial liners shall be permitted.

4. A chain link fence, a minimum of six (6) feet in height with a nine (9) gauge, two inch (2") mesh, with all exposed components of said fence and mesh being coated with polypropylene or vinyl in a black color, shall enclose all completed fracture ponds that are located outside of the gas well pad site boundary. The location of said fence shall be depicted on the site plan drawing included with the gas well permit submittal documents. Ponds that are located within the city limits shall be totally enclosed by an irrigated 40 foot landscape buffer. Said fence gate shall remain locked unless operator personnel are present.

5. The pond will not conflict with the aesthetics of any surrounding developments.

6. Ponds shall be maintained in a manner utilizing Best Management Practices to ensure the integrity of the pond. "Best Management Practices" shall mean structural, nonstructural and managerial techniques that are recognized to be the most effective and practical means to control water storage in open pits in an urban or rural setting.

7. All existing ponds within the city limits shall be brought into compliance with the fencing and landscaping requirements as contained herein by January 1, 2012.

b. Upon annexation, any existing fracture ponds in violation of this article shall be either be brought into compliance with this article

or removed and the sites restored to the previous conditions. Compliance or removal shall be completed within one (1) year of annexation. An operator may apply for a one time six (6) month administrative extension from the City's Environmental Services Director. The pad site operator shall be responsible for any costs associated with the restoration project.

c. No oil and gas waste by-products or salt water shall be allowed into any fracture pond.

d. For gas drilling permit applications received after January 18, 2011 all fracture ponds shall be required to be removed five (5) years from the date of permit issuance. An operator may apply for a one time two (2) year administrative extension from the City's Environmental Services Director. The Environmental Services Director shall be authorized to require such measures as necessary to minimize the impact of the fracture pond upon neighboring properties as a condition of the approval of the administrative extension. Any additional extension requests or the appeal of a denial of an administrative extension shall require City Council approval in accordance with Section 13-510. Extension requests, whether administrative or requiring City Council approval, shall be requested in writing at least six (6) months prior to any expiration date. The pad site operator shall be responsible for the cost to remove the fracture pond and restore the site to match surrounding ground surface to establish a minimum of 80% vegetation.

(20) *Freshwater wells.*

a. It shall be unlawful to drill any well, the center of which, at the surface of the ground, is located within the wellhead protection zone surrounding any City of Grand Prairie municipal well.

b. The operator of a gas well shall provide the city's Environmental Services Director with a "pre-drilling" and "post-drilling" water analysis from any freshwater well within seven hundred and fifty (750) feet of the gas well pad site boundary line. This sampling shall meet the following requirements:

1. Water sampling must be collected and analyzed in accordance with established federal sampling and laboratory protocol. All laboratories must be Texas

Commission on Environmental Quality or U.S. Environmental Protection Agency certified laboratories. Pre-approval by the city's Environmental Services Director of all sampling methods, preservation techniques, analytical methods and contract laboratories is required. This information is required to be submitted at the time of permit application for review.

2. At a minimum, the following parameters shall be tested for: methane, chloride, sodium, barium, strontium, total dissolved solids, total suspended solids, pH, volatiles and semi-volatiles. Other parameters may be required at the discretion of the Environmental Services Director.

3. Post-drilling sampling shall be required no less than 60 days following the completion of fracturing operations and no longer than 90 days following completion of fracturing operations.

4. This freshwater well sampling requirement may be waived if a well is determined by the city's Environmental Services Director to be abandoned or the freshwater well owner waives the right to have the well sampled.

5. If at a later date, the city's Environmental Services Director believes that evidence exists that indicates a freshwater well may have been negatively impacted by any drilling operations, the city's Environmental Services Director may require the operator to conduct such sampling and analysis as necessary to determine the source of any problems or contamination. If the city's Environmental Services Director determines that there is reasonable suspicion that drilling operations have negatively impacted the quality or quantity of water from a freshwater well, the operator shall provide an approved temporary source of water to the freshwater well owner while an investigation is conducted. If the investigation reveals that drilling operations are responsible for a negative impact on the quality or quantity of water from a freshwater well, the operator shall be required to provide a permanent approved source of water to the freshwater well owner. A negative impact shall include, but shall not be limited to, a reduction in flow from the well, changes to water quality that result in exceedances of any standards established for drinking water by the federal or state environmental agencies, changes in color, smell or other aesthetic items that renders the water

unpalatable for human consumption or contact, and any changes that render the water unsuitable for irrigation or livestock purposes.

6. All sampling and analysis costs shall be responsibility of the operator. If the city incurs any costs associated with the investigation of a freshwater well complaint, the operator shall be required to reimburse the city within 30 days of receiving an invoice.

c. It shall be unlawful for any drilling activities to have a negative impact as defined in Section 13-515 (a) (20) b. 5.

(21) *Freshwater usage.* Any connection to a freshwater source, including but not limited to, the city public drinking water system, private wells, other surface and/or groundwater sources, shall comply with all applicable cross connection control requirements.

(22) *Grass, weeds, trash.* All drill and operation sites shall be kept clear of high grass, weeds, and combustible trash.

(23) *Hazardous plan.* Hazardous materials management plan shall be on file with the fire marshal and the inspector. The hazardous materials plan shall be kept current with any additions, modifications, and/or amendments concerning all construction related activities, oil and natural gas operations, and oil and gas production. Updated plans shall be submitted within two (2) business days of any modifications.

(24) *Lights.* No person shall permit any lights located on any drill or operation site to be directed in such a manner so that they shine directly on public roads, adjacent property or property in the general vicinity of the operation site. To the extent practicable, and taking into account safety considerations, site lighting shall be directed downward and internally so as to avoid glare on public roads and adjacent dwellings and buildings within three hundred (300) feet.

(25) *Landfarming.* Landfarming shall be prohibited within the city limits of Grand Prairie. Additionally, landfarming shall be prohibited within any area of the ETJ that is within the watershed of Joe Pool Lake. This prohibition shall supersede any permit or authorization from the Commission or any other state or federal agency.

(26) *Muffling exhaust.* Exhaust from any internal combustion engine, stationary or mounted on wheels, used in connection with the drilling of any well or for use on any production equipment shall not be discharged into the open air unless it is equipped with an exhaust muffler or mufflers, or an exhaust

muffler box constructed of noncombustible materials sufficient to suppress noise and prevent the escape of obnoxious gases, fumes, or ignited carbon or soot.

(27) *Private roads for gas well drill sites.* Prior to the commencement of any drilling operations, all private roads used for access to the drill site boundary to include fracture ponds and the operation site itself shall be a minimum of ten (10) feet wide, have an overhead clearance of fourteen (14) feet and shall be surfaced and maintained to prevent dust and mud and as required below.

The point of connection of a private road to a city, county, or state street/highway shall be required to be processed through City's Building Inspection as a gas well approach and driveway permit. The City's Transportation Planner may assist the applicant with securing access agreements with other required governmental entities. The gas well approach and driveway shall be located, designed, and surfaced with reinforced concrete. The gas well approach and driveway, including the mud shaker, shall be constructed prior to the initiation of any other on-site construction activities.

All private roads shall be designed to prevent the creation of a dust or mud nuisance. The City Engineer or his designee will review the plans for general compliance as designed and sealed by a Civil Engineer registered in the State of Texas. The gas well approach and driveway shall be designed and constructed as per the "Typical Gas Well Approach and Driveway Detail and Specifications" and are to be constructed of ~~only~~ reinforced concrete as specified.

All private roads are required to be constructed of reinforced concrete within 1000 feet of the public road providing access to the limits of the pad site. In those instances where 1000 feet of private road will not reach the pad site other dustless road options, such as 4 inch minimum (Type B or D) H.M.A.C. placed over 6 inch minimum TxDOT Flexbase (NCTCOG Spec. Item #301.5) or 8 inch thick minimum TxDOT Flexbase with dust control agent may be considered for the portion of the road greater than 1000 feet from the public road with this consideration to be reviewed on a case by case basis. Any consideration for alternative dustless road material for options only over the said 1,000 foot limit, will be considered as part of the permit review and decisions may be appealed to the City Manager who has the final decision making authority.

(28) *Reduced emission completion.* After fracturing or re-fracturing, operators shall employ appropriate equipment and processes as soon as practicable to minimize natural gas and associated vapor releases to the environment. All salable gas shall be directed to the sales line as soon as practicable or

shut in and conserved. All wells that have a sales pipeline shall be required to employ Reduced Emission Completion techniques and methods. If authorized by the City, flaring may be used in some instances as a temporary alternative to venting. In such a case, open flames shall not be located closer than three hundred (300) feet from any building not used in operations on the Drill Site and such open flame shall be screened in such a way as to minimize nuisance and detrimental effects to surrounding properties.

(29) *Salt water wells.* No salt water disposal wells shall be located within the City of Grand Prairie or its ETJ. Produced water or other wastewater collection/transportation pipelines are prohibited without City Council approval. Individual or centralized wastewater treatment facilities are prohibited without City Council approval.

(30) *Security.*

a. The operator must keep a watchman or security personnel on-site during the drilling, fracturing, or re-working of a well when other workmen are not on the premises.

b. An operator shall be required to employ an off-duty certified peace officer to direct traffic at the entrance to the pad site during all times of high truck traffic accessing the site, including, but not limited to pad site construction, fracture pond construction, drilling, fracturing, flowback, and any rework activity that requires a rig. The off-duty certified peace officer shall be directed to ensure that all traffic entering and exiting the pad site are utilizing the approved transportation route. A written record shall be maintained of any violators and shall be available onsite for inspection by city staff.

(31) *Signs.*

a. A sign shall be immediately and prominently displayed at the gate on the temporary and permanent site fencing erected pursuant to section 13-516 of this article. Such sign shall be durable material, maintained in good condition and, unless otherwise required by the commission, shall have a surface area of not less than two (2) square feet nor more than four (4) square feet and shall be lettered with the following:

1. Well name and number;

2. Name of operator;

3. The emergency 911 number; and

4. Telephone numbers of two (2) persons responsible for the well who may be contacted in case of emergency.

5. The address of the well.

b. Permanent weatherproof signs reading "DANGER NO SMOKING ALLOWED" shall be posted immediately upon completion of the well site fencing at the entrance of each well site and tank battery or in any other location approved or designated by the fire chief of the city. Sign lettering shall be four (4) inches in height and shall be red on a white background or white on a red background. Each sign shall include the emergency notification numbers of the fire department and the operator, well and lease designations required by the commission.

c. All wellheads and tank batteries must have signs as required by the Commission.

d. A sign shall be placed at the exit to the site that reads "ALL TRUCK TRAFFIC IS REQUIRED TO FOLLOW THE APPROVED TRANSPORTATION ROUTE. VIOLATORS SUBJECT TO $2,000 FINE. TODOS LOS CAMIONES ESTAN OBLIGADOS A SEGUIR LAS RUTAS DE TRANSPORTE APROBADAS. LOS INFRACTORES ESTAN SUJETOS A MULTAS DE $2,000." The sign lettering, size, and background shall meet city specifications. A directional arrow shall be placed immediately below the above sign and shall indicate the proper direction of travel for exiting truck traffic. The sign shall be placed in a position viewable by exiting truck traffic and shall not be placed on City right-of-way. The sign and the proposed sign location shall be reviewed and approved by the City during the application review process.

(32) *Storage of equipment.* Onsite storage is prohibited on the operation site. No equipment shall be stored on the drilling or production operation site, unless it is necessary to the everyday operation of the well. Lumber, pipes, tubing and casing shall not be left on the operation site except when drilling or well servicing operations are being conducted on the site.

No vehicle or item of machinery shall be parked or stored on any street, right-of-way or in any driveway, alley or upon any operation site which constitutes a fire hazard or an obstruction to or interference with fighting or controlling fires except that equipment which is necessary for drilling or production operations on the site. The fire department shall be the entity

that determines whether equipment on the site shall constitute a fire hazard. No refinery, processing, treating, dehydrating or absorption plant of any kind shall be constructed, established or maintained on the premises. This shall not be deemed to exclude a conventional gas separator or dehydrator.

(33) *Storage tanks.* All tanks and permanent structures shall conform to the American Petroleum Institute (A.P.I.) specifications unless other specifications are approved by the fire chief. All storage tanks shall be equipped with a secondary containment system including lining with an impervious material. The secondary containment system shall be a minimum of three (3) feet in height and one and one-half (1-1/2) times the contents of the largest tank in accordance with the fire code, and buried at least one (1) foot below the surface. Drip pots shall be provided at the pump out connection to contain the liquids from the storage tank.

All tanks shall be set back pursuant to the standards of the commission and the National Fire Protection Association, but in all cases, shall be at least twenty-five (25) feet from any public right-of-way or property line. Each storage tank shall be equipped with a level control device that will automatically activate a valve to close the well in the event of excess liquid accumulation in the tank.

No meters, storage tanks, separation facilities, other aboveground facilities, well heads, or flow lines, shall be placed in the one hundred-year floodplain, without the prior consent of the Engineering Division pursuant to paragraph (i) of Section 13-504, "Gas well permit required" of this article. No such structures are permitted in the floodway.

Tanks must be at least three hundred (300) feet from any other combustible structure.

(34) *Storm water regulations.* The operator shall comply with all federal, state, and local storm water quality regulations, including any notice of intent (NOI) and notice of termination (NOT) requirements.

(35) *Surface casing.* Surface casing shall be run and set in full compliance with the applicable rules and regulations of the commission.

(36) *Tank battery facilities.* Tank battery facilities shall be equipped with a remote foam line and a lightning arrestor system.

(37) *Transportation route.* All vehicle truck routes must be approved by the City prior to permit issuance. The Transportation Director shall have the authority to require an alternate route to minimize the impact to

surrounding uses. All truck traffic shall be required to follow the approved transportation route.

(38) *Valves.* Each well must have a shutoff valve to terminate the well's production. The fire department shall have access to the well site to enable it to close the shut-off the valve in an emergency.

(39) *Waste disposal.* Unless otherwise directed by the commission, all tanks used for storage shall conform to the following:

Operator must use portable closed steel storage tanks for storing liquid hydrocarbons. Tanks must meet the American Petroleum Institute standards. All tanks must have a vent line, flame arrester and pressure relief valve. All tanks must be enclosed by a fence applicable to the issued permit classification. No tank battery shall be within one hundred (100) feet from any building used, or designed and intended to be used, for human occupancy, or from other combustible structures.

Drilling mud, cuttings, liquid hydrocarbons, and all other field waste derived or resulting from or connected with the drilling, re-working or deepening of any well shall be discharged into an aboveground self-contained tank system. All disposals must be in accordance with the rules of the commission and any other appropriate local, state, or federal agency.

Unless otherwise directed by the commission, waste materials shall be removed from the site and transported to an off-site disposal facility not less often than every thirty (30) days. Water stored in on-site tanks shall be removed as necessary.

All waste shall be disposed of in such a manner as to comply with the air and water pollution control regulations of the state, this article and any other applicable ordinance of the city.

(40) *Work Hours.*

For all permits, work hours for site development (other than drilling and flowback operations), truck deliveries of equipment and materials associated with drilling and/or production, well servicing, site preparation and other related work conducted on the well site shall be limited to daytime except in cases of fires, blowouts, explosions and any other emergencies.

(41) *Air Quality*

a. No person shall cause or allow a discharge and/or emission to the atmosphere.

b. Failure to maintain all equipment as to prevent excessive emissions is a violation of this article.

c. The operator must comply with the approved Leak Detection and Compliance Plan, report to the Environmental Services Department within fifteen (15) minutes of identification of a leak, and repair leaks in the time specified by the inspector.

d. The Environmental Services Director shall be authorized to require the utilization of a third party expert as chosen by the City to conduct testing of airborne emissions resulting from any padsite activities in order to ensure compliance with state and federal regulations and/or in response to health concerns. Based on the recommendation of the expert, emission control equipment may be required.

(42) Cellars. All cellars must be completely filled in prior to first sales.

(b) *Well setbacks.* It shall be unlawful to drill any well, the center of which, at the surface of the ground, is located:

(1) Within twenty-five (25) feet from any outer boundary line; or

(2) Within twenty-five (25) feet from any storage tank, or source of ignition; or

(3) Within seventy-five (75) feet of any public street, road, highway or future street, right-of-way line; or

(4) Within three hundred (300) feet from any building used, or designed and intended to be used, for human occupancy unless a larger setback is required by the gas well permit; or

(5) Within one hundred (100) feet of any building accessory to, but not necessary to the operation of the well; or

(6) Within two hundred (200) feet to any freshwater well owned by an individual who has signed a mineral lease for the property containing the freshwater well. The measurement shall be in a direct line from the closest well bore to the freshwater well bore.

(7) Within five hundred (500) feet to any freshwater well owned by an individual who has not signed a mineral lease for the property containing

the freshwater well. The measurement shall be in a direct line from the closest well bore to the freshwater well bore.

(8) Within seventy-five (75) feet of the pad site boundary line.

(9) Within one hundred (100) feet of any type of surface water conveyance, including, but not limited to creeks, streams, lakes, ponds, drainage ditches, or other constructed storm water conveyance systems.

The distance shall be calculated from the well bore, in a straight line, without regard to intervening structures or objects, to the closest exterior point of any object listed in (1) through (9) above.

(c) *Well Head Easement*. For all drilling operations, a well head easement shall be submitted by the operator for approval by the city with the permit application. The easement shall be filed and recorded with the appropriate agency of the county government in which the well is located prior to the commencement of drilling operations subject to the following provisions:

(1) Such easement shall have a radius of three hundred (300) feet as calculated from the well bore, in a straight line, without regard to intervening structures or objects.

(2) Such easement may be filed as a separate instrument dedication, or be dedicated on a land subdivision plat approved by the city.

(3) No future residential lots shall be platted within the well head easement until the well is abandoned pursuant to the provisions of this article, and the drill site easement has been vacated by the city.

(4) No vertical residential or non-residential structures of any type, except those required for the gas drilling and production operation may be constructed within such easement. Only hard surface paving (flat-work) and site landscaping shall be permitted. City staff may approve amended easement language that permits certain accessory uses and structures, such as communication, recreational, athletic and agricultural facilities with use restrictions, to be placed inside the well head easement. Such amendments and use restrictions shall be approved as a part of the permit application review process.

(5) Where a public street or highway right-of-way is located within and adjoins the perimeter boundary of the well head easement, such right-of-way shall be credited toward the area and distance required for the establishment of such easement, so that said right-of-way area shall be excluded from the easement. For the purpose of enforcing this provision, non-residential land uses shall be defined by Article 4 of the Grand Prairie

Unified Development Code for well sites situated inside the city limits; or by the Comprehensive Plan Future Land Use Map of the City of Grand Prairie, as amended, for well sites situated within the city's extraterritorial jurisdiction.

(6) The written authorization(s) from all affected property owners shall be recorded on the easement instrument for easements that traverse more than one property ownership boundary. Or, absent the necessary and required authorizations from adjoining property owners, such easement shall encompass the land area located inside the fenced boundary of the gas well drilling pad site as established by the permit application.

(7) When considering amendments to the 300 foot well head easement requirement, city staff shall review concept plans, plats, long range land use plans and similar documents addressing future development proposed around the well head site to ensure that the safety and welfare of future residents is not compromised. The amended easement area shall be depicted on the site plan drawing, or on an attaching sheet, included with the gas well permit application. Alternative easement configurations denied by staff may be appeal to the City Council.

(8) Within in fifteen (15) days of the filing and recordation of the well head easement, the operator, at operator's expense, shall erect at least four (4) warning signs, measuring no less than ten (10) inches by fourteen (14) inches in size, mounted a minimum of five (5) feet above ground surface on a 2-3/8 inch galvanized steel post or equal. Said warning signs shall be placed upon the perimeter boundary of the well head easement at conspicuous locations nearest any right-of-way, street, roadway, public thoroughfare, or residential zoning district or subdivision. Said signs shall contain the following information:

a. With a minimum one-inch high letters contain: "GAS WELL HEAD *EASEMENT BOUNDARY*"

b. With a minimum one-half inch high letters contain operator's emergency phone number: "IN CASE OF EMERGENCY CALL (###) ###-####."

(9) A "landscape and no-build easement," as permitted by Sec.13-516(a) (2) d. of this article, may be dedicated and recorded in lieu of the "Well Head Easement" described herein. Such substitution of easements shall only be permitted for those pads sites developed under the "Vegetative Concealment" (Option 2) screening requirements specified in Sec. 13-516 of this article.

(d) Noise restrictions.

(1) a. No well shall be drilled, redrilled, or any equipment operated at any location in such a manner so as to create any noise which causes the exterior noise level when measured at the nearest protected use receiver's/receptor's property line or one hundred (100) feet from the nearest protected use structure (as measured to the closest exterior point of the building), whichever is closer to the receiver/receptor, that exceeds the ambient noise level by more than five (5) decibels during daytime hours and more than three (3) decibels during nighttime hours. Fracing operations may not exceed the ambient noise level by more than ten (10) decibels. Flowback operations may not exceed the ambient noise level by more than five (5) decibels during daytime hours or more than three (3) decibels during nighttime hours.

b. An Operator shall not drill or re-drill a well or operate any equipment in such a manner so as to create pure tones where one-third octave band sound-pressure level in the band with the tone exceeds the arithmetic average of the sound-pressure levels of two contiguous one-third octave bands by five (5) dB for center frequencies of 500 hertz and above, and by eight (8) dB for center frequencies between 160 and 400 hertz, and by fifteen (15) dB for center frequencies less than or equal to 125 hertz.

c. An Operator shall not drill or re-drill a well or operate any equipment in such a manner so as to create low-frequency outdoor noise levels that exceed the following decibel levels:

16 hertz octave band: 65 dB
32 hertz octave band: 65 dB
64 hertz octave hand: 65 dB

(2) The operator shall be responsible for establishing and reporting to the city the pre-drilling ambient noise level prior to the issuance of a gas well permit. A seventy-two (72) noise study shall be utilized to establish ambient noise levels. The seventy -two (72) hour time span shall include at least one twenty-four (24) hour reading during either a Saturday or Sunday. The timeframe for this study shall be designed to avoid the influence of wind interference on the study. The determination as to whether subsequent studies are needed to reevaluate ambient noise conditions shall be at the sole discretion of the City's Environmental Services Director. The applicant shall submit a proposed ambient noise level study plan to the City's Environmental Services Director for approval prior to conducting the study. The proposed plan shall contain a proposed testing schedule and other details as required by the City's Environmental Services Director.

(3) At any time in a measurement period, no noise may exceed the maximum sound level standard plus 20 dB(A). The time period of monitoring will be continuous over a minimum of fifteen (15) minutes and will use the A-weighting network reported in decibel units. Data shall be recorded and reported as Leq which shall mean an average measure of continuous noise that has the equivalent acoustic energy of the fluctuating signal over the same period.

(4) All noise readings recorded shall be collected in accordance with the requirements contained in the City's Code of Ordinances Chapter 13, Article XIII, Noise Restrictions.

(5) All workover operations shall be restricted to daytime hours. "Workover operations" shall mean work performed in a well after its completion in an effort to secure production where there has been none, restore production that has ceased or increase production.

(6) All gas drilling permit applications must include a detailed noise abatement study, conducted by a qualified noise consultant/engineer approved in advance by the City's Environmental Services Director. This study shall include:

a. A description of the proposed facility/operation.

b. A determination of the ambient noise level utilizing a noise survey of a minimum of 72 hours and shall include at least one twenty-four (24) hour reading during either a Saturday or Sunday.

c. An analysis of any significant sources of noise, including noise that will be generated during the drilling, fracturing, flowback, and operational phases of the drill site. This analysis must include a comparison of the potential noise generation with the applicable noise standards.

d. An analysis of any abatement measures necessary to bring the proposed facility into compliance with the City's noise standards. If the analysis indicates that abatement measures are required to meet the standards, then the applicant must submit a detailed plan that describes the specific measures that will be utilized. This shall include product information and a location diagram. All soundproofing shall comply with accepted industry standards. The abatement measures shall be installed prior to the commencement of any drilling activities.

e. A description of any continuous noise monitoring program if required by (d) (7) of this section.

f. A description of any noise abatement measures if required by (d) (7) of this section. This shall include product information and a location diagram.

(7) If the proposed gas well is within 1,000 feet of any protected use, the operator must comply with these additional noise abatement measures:

a. Exterior noise levels, including pure tone and low frequency data, shall be continuously monitored to ensure compliance. This data shall also include an audio recording to help identify the source of sound level "spikes" throughout the logging period. The continuous noise monitoring equipment shall be capable of wireless transmission of real-time noise and audio data. Access to this real-time data shall be made available to the City's Environmental Services Director and the inspector. The cost of all such monitoring shall be borne by the operator. The noise readings shall also be submitted to the inspector on a weekly basis in an electronic format or other format specified by the inspector. The weekly report shall contain all noise data including pure tone and low frequency readings. The report shall state whether the pad site is in compliance with the noise requirements. If the report states that the pad site is not in compliance with the noise standards, then the report shall state the measures that are being taken to return the pad site to compliance and the timeframes for implementing these remedial measures.

b. At a minimum, the operator shall install noise reduction blankets on the pad site boundaries facing any protected uses within 1,000 feet. The height of boundary blankets shall at a minimum be thirty (30) feet. The height may be increased at the discretion of the Environmental Services Director in response to topographic necessity. In addition to the boundary barriers, the operator must, at a minimum, install additional noise reduction blankets to mitigate noise generated from the rig substructure, the rig floor area, brake drum housings, mud pumps, diesel motors, and generators. The blankets shall be constructed of a fire retardant material approved by the fire department. The boundary noise reduction blankets for Class 1 well sites shall be required to meet a standard of STC 30 or greater. Blankets that meet an equivalent national standard will be considered on a case by case basis by the Environmental Services Director.

Additionally, any exhaust from an internal combustion engine or compressor, stationary or mounted on wheels, must be controlled through the utilization of a "hospital" grade muffler or equivalent control device.

The noise abatement study required in (d)(6) above shall include a site plan showing the location of the boundary noise reduction blankets and a rig layout diagram detailing the location of all other noise reduction blankets, "hospital" grade mufflers, and any other noise reduction equipment.

All noise abatement measures including, but not limited to, noise walls and blankets, must be maintained in good repair at all times.

c. During nighttime operations, the operation of vehicle audible back-up alarms shall be prohibited or replaced with approved non-auditory signaling systems, such as spotters or flagmen. Deliveries of pipe, casing and heavy loads shall be limited to daytime hours, except for emergency situations. The Derrick Man and Driller shall communicate by walked-talkie or other non-disruptive means only when the Derrick Man is in the derrick. Horns may not be used to signal for connection or to summon crew (except that a horn may be used for emergency purposes only). The operator shall conduct onsite meetings to inform all personnel of nighttime operations noise control requirements.

(8) The noise requirements contained within this ordinance are hereby declared to be necessary to protect the public health of the community, and are applicable to all current gas drilling permits and any new gas drilling permits.

(9) *Timeframe for Boundary Noise Reduction Blankets.* If at anytime, drilling, well completion, or fracturing operations cease for a period of greater than 90 days, the applicant shall be required to immediately remove any noise walls and any supporting structures. The Environmental Services Director may grant a one-time 30 day extension per well. Additionally, the Environmental Services Director may waive this requirement for pad sites that have sufficient natural/vegetative/ topographical screening that prevent the view of the boundary noise reduction blankets from city streets or from protected uses.

To facilitate enforcement of this provision, all applicants with pad sites that have boundary noise reduction blankets shall be required to provide written notice by letter or email. This notice, required within 48 hours of the termination of drilling, well completion, or fracturing operations, shall be directed to the Environmental Services Director or his/her designee.

(e) *Lift Compressors.* Lift compressors are restricted to gas drilling pad sites and must be at least 700 feet from the nearest protected use, unless a lesser distance is authorized by the City Council (Section 13-510(f)(10), and shall have secondary containment as required by Section 13-515(a)(33). Additional requirements for lift compressors are as follows:

(1) A lift compressor shall be considered temporary if the installation is for less than 90 days and shall be allowed five (5) dBA over ambient during the day and three (3) dBA over ambient at night. No compressor shall be considered temporary if installed after the removal of the initial compressor for that well. Sound blankets shall be required for noise abatement on temporary lift compressors.

(2) Permanent lift compressors shall be enclosed within an acoustical structure composed of permanent material constructed of metal, masonry or other structurally sound material as approved by the Environmental Services Director that significantly screens the equipment, is painted in a non-contrasting soft earth tone color to match the nearby surroundings as nearly as possible and meets applicable building and fire codes. The structure shall be architecturally compatible with surrounds building structures and the structure's façade shall be approved by the city's Chief Planner.

(3) Any exhaust from an internal combustion engine or compressor, stationary or mounted on wheels, must be controlled through the utilization of a "hospital" grade muffler or equivalent control device. This device must be sufficient to suppress noise and vibration and prevent the escape of noxious gases, fumes, or ignited carbon or soot.

(4) The operation of permanent lift compression equipment shall not create any noise that causes the exterior noise level to exceed the pre-development ambient noise levels as measured at the nearest protected use receiver's/receptor's property line or one hundred (100) feet from the nearest protected use structure (as measured to the closest exterior point of the building), whichever is closer to the receiver/receptor. The operator shall be responsible for establishing and reporting to the City the pre-development ambient noise level prior to the issuance of the building permit for the compression structure. The ambient noise level shall be determined as required by 15-515(d) (2).

(f) *Line Compressors.* This section shall apply to line compressors restricted to gas drilling pad sites. All other types of line compressors shall be required to comply with the city's Unified Development Code. Line compressors on gas drilling pad sites must be at least 700 feet from the nearest protected use, unless a lesser distance is authorized by the City Council (Section 13-510(f)(10), and shall have

secondary containment as required by Section 13-515(a)(33). Additional requirements for line compressors are as follows:

(1) Line compressors shall be enclosed within an acoustical structure composed of permanent material constructed of metal, masonry or other structurally sound material as approved by the Environmental Services Director that significantly screens the equipment, is painted in a non-contrasting soft earth tone color to match the nearby surroundings as nearly as possible and meets applicable building and fire codes. The structure shall be architecturally compatible with surrounds building structures and the structure's façade shall be approved by the city's Chief Planner.

(2) Any exhaust from an internal combustion engine or compressor, stationary or mounted on wheels, must be controlled through the utilization of a "hospital" grade muffler or equivalent control device. This device must be sufficient to suppress noise and vibration and prevent the escape of noxious gases, fumes, or ignited carbon or soot.

(3) The operation of line compression equipment shall not create any noise that causes the exterior noise level to exceed the pre-development ambient noise levels as measured at the nearest protected use receiver's/receptor's property line or one hundred (100) feet from the nearest protected use structure (as measured to the closest exterior point of the building), whichever is closer to the receiver/receptor. The operator shall be responsible for establishing and reporting to the City the pre-development ambient noise level prior to the issuance of the building permit for the compression structure. The ambient noise level shall be determined as required by 15-515(d) (2).

Sec. 13-516. Fences, walls, and landscape screening.

(a) *Fences/walls.* Fences shall be required on drill sites during initial drilling, completion or re-working operations. All fencing and screening materials must be maintained in good repair at all times. A secured entrance gate shall be required. All gates are to be kept locked when the operator or his employees are not within the pad site boundary enclosure. Within one-hundred twenty (120) days from setting the surface casing on the first well on a Drill Site, all gas well pad sites shall be completely enclosed with the required fence, trees, landscaping, and an operational landscape irrigation system as specified below in this article as follows:

(1) Permanent enclosure requirements for a gas well pad site with no operations to be conducted within one thousand (1,000) feet of a protected use.

a. A chain link shall be required for walls enclosing the gas well pad site, with said fence and support members being at least six (6) feet in height;

b. Support posts shall be set in concrete and shall be imbedded into the ground to a depth sufficient to maintain the stability of the fence; provided, however, so long as stability of the fence is maintained, temporary fence posts shall not be required to be set in concrete;

c. The chain link fabric shall be galvanized steel wire with a minimum plating of one and two-tenths (1.2) ounces of zinc per square foot of surface area and shall be coated with polypropylene or vinyl in a black color approved by the fire chief;

d. The chain link fence fabric shall have a minimum thickness of eleven (11) gauge;

e. The chain link fabric shall be three and one-half (3 1/2) inch mesh;

f. Posts and rails shall be standard galvanized, welded pipe, schedule forty (40) or thicker; provided, however, that non-galvanized drill pipe may be used if it exceeds schedule forty (40) in thickness;

g. All pipe and other ferrous parts, except chain link fabric and drill pipe, shall be galvanized inside and outside with a plating which contains a minimum of one and two-tenths (1.2) ounces of zinc per square foot of surface area;

h. Tension rods shall be three-eighths-inch round steel bolt stock. Adjustable tighteners shall be turnbuckle or equivalent having a six-inch minimum take-up. Tension bars shall have a minimum thickness of one-fourth (1/4) by three-fourths (3/4) inch; and

i. All fences shall have security extension arms at the top of such fences and such security extension arms shall be strung with at least two (2) strands of galvanized barbed wire.

(2) Permanent enclosure requirements for a gas well pad site located within one thousand (1,000) feet of a protected use.

a. All walls (either site constructed or prefabricated) shall be of kiln-fired masonry, stone or other like material, in whole or in part, and shall be constructed in accordance with standard engineering practices and shall meet the following specifications:

1. The wall shall be of a design compatible with the facilities, buildings and structures on and adjacent to the site;

2. The wall shall be at least eight (8) feet in height; and

3. The wall surface shall have a troweled, mortar bond finish for either brick or stone textures.

b. *Application of additional wall articulation and landscape buffering.* Masonry wall enclosures required for the gas well padsite located within one thousand (1,000) feet of a protected use shall require wall adornments and landscaped features for each exterior side of the masonry wall enclosure, as measured between two (2) perimeter wall corners, through the application of either one of two options described in the following sections of this article:

c. Wall Plane Articulation (Option 1)

1. For each exterior side of the masonry wall enclosure, a wall surface measuring no less than eight (8) feet in width shall be articulated, from top of wall to bottom of wall, in accordance with this section, with said articulated surface being spaced no more than fifty (50) feet, and no less than thirty (30) feet, apart from the next articulated surface, with each exterior side of the masonry wall enclosure containing at least three (3) such articulated surfaces.

2. One or more of the following features shall be used to articulate the wall surface described in Section (a)(2)c. above:

Feature Description	Specification
Wrought iron type grates.	To be installed into a void and open section of the wall with no grate openings greater than four (4) inches in width or diameter.
Recessed niche.	To be recessed no less than eighteen (18) inches into the wall perimeter, as measured from the exterior wall surface, with planted shrubs inside the recessed wall niche

areas. Masonry, stone and stucco shall be permitted materials for this feature.

Projecting section.	To extend no less than eighteen (18) inches out from the wall perimeter, as measured from the exterior wall surface, with planted shrubs inside the recessed wall niche areas located between the projected wall sections. Masonry, stone and stucco shall be permitted materials for this feature.

3. Landscaping, maintenance and irrigation shall be required along the outside of the wall with suitable screening shrubs that complement the architectural character of the surrounding neighborhood. Screening shrubs shall be installed in between the articulated wall surfaces around the wall, or may be installed only within a recessed niche feature, as described Section (a) (2)c.2. of this article, where such features are located.

4. Required screening shrubs shall be of an evergreen variety and be a minimum of three (3) feet in height at planting, with such landscaping being watered by an installed irrigation system that provides total water coverage to all plant materials.

5. The location of all landscaped improvements shall be depicted on the site plan drawing, or on an attaching sheet, of the gas well permit submittal documents.

d. Vegetative Concealment (Option 2)

1. Wall Plane Articulation, as described in Section (a)(2)c. of this article, shall not be required for the Vegetative Concealment option.

2. Landscaping, maintenance and irrigation shall be required within a zone measured forty (40) feet outward from the exterior surface of all perimeter walls, with such landscaped zone to be dedicated and recorded as a “landscape and no-build easement”, with such dedicated

easement being permitted in lieu of the "Well Head Easement" described in Section 13-515.(c) of this article.

3. The "landscape and no-build easement" may be filed as a separate instrument dedication, or be dedicated on a land subdivision plat approved by the city, and such "landscape and no-build easement" shall be dedicated and recorded with the appropriate agency of the county government in which the well is located prior to the commencement of drilling operations.

4. A berm with a minimum height of four (4) feet, as measured from the highest existing grade elevation of the gas well pad site, shall be required at the base of the masonry wall enclosure, with such berm having side-slopes that shall not exceed a 3:1 slope.

5. Large evergreen screening shrubs, ornamental shrubs, ground cover, and bedding plants shall be planted around the perimeter of the masonry wall enclosure within the "landscape and no-build easement," with such landscape materials being planted in the following minimum quantities and sizes:

Description	Specification
Large evergreen shrubs.	Required to cover a minimum of forty (40) percent of total easement area, and shall be a minimum of three (3) feet in height at planting, with such shrubs having the potential to grow to a mature height of a minimum of six (6) feet.
Small ornamental shrubs.	Required to cover a minimum of twenty (20) percent of total easement area, and shall be of a lower height compared to the evergreen shrubs, with such shrubs having the potential to grow to a mature height no greater than three (3) feet.

Ground cover/bedding grasses	Required to cover the balance plants and ornamental of total easement area.

6. All required shrubs and ground covers may be planted anywhere within the required "landscape and no-build easement" and be of an approved species as listed in the landscaping and screening requirements of the Grand Prairie Unified Development Code as amended.

7. Trees shall be planted around the perimeter of the masonry wall enclosure within the "landscape and no-build easement" in a manner to achieve a more natural appearance. All required trees shall be of an evergreen variety, and be of an approved species as listed in the landscaping and screening requirements of the Grand Prairie Unified Development Code as amended.

8. The number of required trees to be planted shall equal one (1) tree for each twenty (20) linear feet of the total length of the masonry walled boundary.

9. A maximum of seventy percent (70%) of the required trees shall be at least three (3) inches in caliper diameter as measured six (6) inches above the root ball.

10. A minimum of thirty percent (30%) of the required trees shall be at least five (5) inches in caliper diameter as measured six (6) inches above the root ball.

11. All required trees may be planted anywhere within the required landscape and no-build easement.

12. Credit will be given for the preservation and maintenance of existing trees - inasmuch as the total number of trees, as required by this Section in caliper inches, shall be reduced by the number of existing trees of equal or greater caliper inches that are preserved and maintained within the 40-foot wide "landscape and no-build easement".

13. All required landscaping should be kept in order, healthy, and be free of weeds and debris and must have an installed irrigation system that provides total water coverage to all plant materials. Upon written notification, any dead or deteriorated vegetation shall be removed and replaced within 30 days from date of notification.

14. The location of all landscaped improvements shall be depicted on the site plan drawing, or on an attaching sheet, of the gas well permit submittal documents.

e. A wrought iron type gate shall be required for both of the above-described options in accordance with the specifications contained in Section (b)(2)b. of this article.

(3) *Gas well drilling/fracturing/development screening fence.* All pad sites shall install a temporary screening fence prior to the commencement of drilling operations. The fence shall be a chain link fence with three and one-half (3½) inch mesh. All pad sites within three hundred (300) feet of a public street shall install screening sections on any outer pad site boundary fence visible from the public street. The Environmental Services Director may waive this screening requirement for any pad site boundary bordered by a boundary noise blanket or natural/vegetative/topographical screening. The screening fence shall be of such sufficient height to screen from view any portable buildings and/or supply areas. The temporary screening fence and the screening sections shall be depicted on the application site plan. The screening sections shall be composed of chain link fence covered with black colored closed mesh composed of polypropylene or vinyl. Alternative designs may be approved by the Chief City Planner.

(b) *Gate specifications.* All chain link fences and masonry walls shall be equipped with at least one (1) gate. The gate shall meet the following specifications:

(1) Each gate shall be not less than twelve (12) feet wide and be composed of two (2) gates, each of which is not less than six (6) feet wide, or one (1) sliding gate not less than twelve (12) feet wide. If two (2) gates are used, gates shall latch and lock in the center of the span;

(2) The gates shall be constructed to a standard that meets the applicable specifications, or of other approved material that, for safety reasons, shall be at least as secure as a chain link fence;

a. A chain link gate shall be required for any entrance to a gas well pad site with no operations within one thousand (1,000) feet of a protected use.

b. A wrought iron type gate shall be required for any entrance to a gas well pad site located within one thousand (1,000) feet of a protected use. The gate shall have no openings greater than four (4) inches in width or diameter, and shall contain the following articulated features:

1. Articulated wall plane features, as described in Section(a)(2) c. of this article, shall be required on each side of the gate, with such selected feature to be constructed with an elevated curvilinear profile extending no less than three (3) feet above the required wall height. Masonry, stone and stucco shall be permitted materials for this elevated feature.

2. For those walls constructed under the specifications described for “Wall Plane Articulation” (Option 1), such elevated features shall qualify for, and be credited to, the wall plane articulation requirements specified in Section (a) (2) c of this article.

3. Such elevated profile features shall be required for all gate entrances.

(3) The gates shall be provided with a combination catch and locking attachment device for a padlock, and shall be kept locked except when being used for access to the site; and

(4) Operator must provide the city fire department with a "Knox padlock" or "Knox box with a key" to access the well site to be used only in case of an emergency.

Sec. 13-517. Cleanup and maintenance.

(a) *Cleanup after well servicing.* After the well has been completed or plugged and abandoned, the operator shall clean the drill site or operation site, complete restoration activities and repair all damage to public property caused by such operations within sixty (60) days.

(b) *Clean-up after spills, leaks and malfunctions.* The operator shall immediately telephone and notify the city of any spill, leak or malfunction. This notification shall include the location of the discharge, type of waste, concentration and volume, if known, and corrective actions taken by the operator. After any spill, leak or malfunction, the operator shall remove or cause to be removed to the satisfaction of the City’s Environmental Services Director and the inspector all waste materials from any public or private property affected by such spill, leak or malfunction. Clean-up operations must begin immediately. If the owner fails to begin site clean-up within twenty-four (24) hours, the city shall have the right to contact the commission in order to facilitate the removal of all waste materials from the property affected by such spill, leak, or malfunction. Additionally, the city shall have the right to enter the property and address emergency

situations as provided by the requirements contained in the City's Code of Ordinances Chapter 13, Article VI, Abatement of Hazardous Conditions.

(c) *Free from debris.* The property on which a well site is located shall at all times be kept free of debris, pools of water or other liquids, contaminated soil, weeds, brush, trash, or other waste material within a radius of one hundred (100) feet around any separators, tanks, and producing wells.

(d) *Painting.* All production equipment shall be painted and maintained at all times, including wellheads, pumping units, tanks, and buildings or structures. When requiring painting of such facilities, the inspector shall consider the deterioration of the quality of the material of which such facility or structure is constructed, the degree of rust, and its appearance. Paint shall be of a neutral color, compatible with surrounding uses. Neutral colors shall include sand, gray and unobtrusive shades of green, blue, or brown, or other neutral colors approved by the inspector.

(e) *Blowouts.* In the event of the loss of control of any well, operator shall immediately take all reasonable steps to regain control regardless of any other provision of this article and shall notify the inspector as soon as practicable. The inspector shall certify in writing, briefly describing the same, to the city manager. If the inspector, in his opinion, believes that danger to persons and property exists because of such loss of well control and that the operator is not taking or is unable to take all reasonable and necessary steps to regain control of such well, the inspector may then employ any well control expert or experts or other contractors or suppliers of special services, or may incur any other expenses for labor and material which the inspector deems necessary to regain control of such well. The city shall then have a valid lien against the interest in the well of all working interest owners to secure payment of any expenditure made by the city pursuant to such action of the inspector in gaining control of said well.

Sec. 13-518. Plugged and abandoned wells.

(a) *Surface requirements for plugged and abandoned well.* Whenever abandonment occurs pursuant to the requirements of the commission, the operator so abandoning shall be responsible for the restoration of the well site to its original condition as nearly as practicable, in conformity with the regulations of this article.

(b) Abandonment shall be approved by the inspector after restoration of the drill site has been accomplished in conformity with the following requirements at the discretion of the inspector:

(1) The derrick and all appurtenant equipment thereto shall be removed from drill site;

(2) All tanks, towers, and other surface installations shall be removed from the drill site;

(3) All concrete foundations, piping, wood, guy anchors and other foreign materials regardless of depth, except surface casing, shall be removed from the site, unless otherwise directed by the commission;

(4) All holes and depressions shall be filled with clean, compactable soil;

a. Abandoned holes, depressions and private access drives used during the operation of the gas well that are constructed on or within public or private parks, landscaped common areas within a residential subdivision, landscaped residential areas or yards, or similar type areas with a maintained ground cover surface shall also be re-sodded with equal or better quality ground covering material similar to that evident on adjoining maintained ground covered areas.

(5) All waste, refuse or waste material shall be removed from the drill site;

(6) A permanent abandonment marker pipe, with the well identity and location permanently inscribed, shall be welded to the casing and shall be at least four (4) inches in diameter with a length of four (4) feet visible above the ground level; and

(7) During abandonment, operator shall comply with all applicable sections in this article.

(c) *Abandoned well requirement.* The operator shall furnish the following at the discretion of the inspector:

(1) A copy of the approval of the commission confirming compliance with all abandonment proceedings under the state law; and

(2) A notice of intention to abandon under the provisions of this section and stating the date such work will be commenced. Abandonment may then be commenced on or subsequent to the date so stated.

(d) *Abandonment requirements prior to new construction.* All abandoned or deserted wells or drill sites shall meet the most current abandonment requirements of the commission prior to the issuance of any building permit for development of the property. No structure shall be built over an abandoned well.

Sec. 13-519. Technical advisor.

The city may from time to time employ a technical advisor or advisors who are experienced and educated in the gas industry or the law as it pertains to gas matters. The function of such advisor(s) shall be to advise, counsel or represent the city on such matters relating to gas operations as the city may want or require and the effect thereof,

both present and future, on the health, welfare, comfort and safety of the citizens of the city. In the event such technical advisor(s) is employed for the purpose of advising, counseling or representing the city relative to an operator's unique and particular set of circumstances, case or request relating to this article, then the cost for such services of such technical advisor(s) shall be assessed against and paid for by such operator in addition to any fees or charges assessed pursuant to this article. Prior to the employment of a technical advisor, the city shall inform the operator of the intended scope of work and the estimated costs and expenses.

Sec. 13-520. Seismic testing

(a) Any company desiring to conduct seismic testing on public rights-of-way and City of Grand Prairie properties shall comply with the following:

(1) Submit an application to the city's Engineering Division along with a $500 application review fee.

(2) Submit a detailed description and maps of the area to be tested.

(3) Enter into a formal access agreement with the City for the use of the specific public rights-of-way and/or property, which will require indemnification of the city and liability insurance coverage.

(4) Pay the required fee for the access agreement and provide a current certificate of insurance for the coverage specified in the agreement.

(5) All work within street roadways shall be in accordance with a traffic control plan approved by the Director of Transportation or his designee.

(6) Comply with all other special provisions and requirements set out in the access agreement with the City.

(7) Use of low impact vibrator systems designed for urban operations and wireless geophones shall only be allowed. They shall be placed along public right-of-ways along the paved section of streets (if immediately adjacent to streets) and to be preferably placed at permitted locations where property owner's approval has been obtained. They shall be moved to accommodate property owner requests where practicable.

(8) Prior to commencement of geophysical operations (laying out of geophones), the company shall mail or otherwise deliver to each resident within the areas shown on the map attached to its access agreement printed general information regarding the operations it will be conducting and an overview of the seismographic survey process. This notice shall include a hotline number for residents to call with questions or complaints related to

the company's operations. The hotline shall be adequately staffed with trained personnel during normal working hours.

(9) Post temporary notification signs on affected streets with the company's name and the hotline number listed for residents to call for information a minimum of 72 hours before any geophone installation or seismic testing work.

(b) Seismic testing (other than submerged lake areas requiring other City approved methods) shall be conducted with low impact vibrator systems designed for urban operations and the testing shall be limited to the hours of 8:00 am until 5:00 pm and not on weekends or City holidays. In addition, the seismic survey activity shall be conducted in accordance with all applicable laws, regulations, and city ordinances.

(c) Any party wishing to conduct seismic testing on private property within the city shall provide advance written notification to the city's Environmental Services Director. This notice shall identify the location of the private property and the estimated dates of activity. Only low impact vibrator systems designed for urban environments shall be allowed.

Sec. 13-521. Rule 37 exceptions or forced pooling applications

Any company filing a Rule 37 exception or a forced pooling application with the Commission shall be required to provide the City's Environmental Services Department a copy of such application within 48 hours following such filing. Failure to provide such copy shall be considered a violation of this article and may cause any issued City gas drilling permit to be subject to suspension or revocation as provided by Section 13-512.

Sec. 13-522. Road Use Fees

(a) All operators shall be required to submit any required road use fees prior to the issuance of any gas drilling permits.

(b) The required fees shall be as follows:

EXHIBIT A
Road Damage Assessment Fees
New Pad Sites

PAVEMENT SECTION	SCENARIO			
	N1 (per lane mile)	N1A* (per lane mile)	N2 (per lane mile)	N2A* (per lane mile)
Flex 1	$44,149	$25,372	$19,355	$578
Flex 2	$56,146	$32,267	$24,614	$736

Flex 3	$54,386	$31,256	$23,843	$713
Flex 4	$44,089	$25,338	$19,329	$577
Flex 5	$11,518	$6,619	$5,050	$151
Flex 6	$5,293	$3,041	$2,320	$69
Flex 7	$2,174	$1,249	$953	$28
Rigid 1	$374	$216	$164	$5
Rigid 2	$87	$48	$36	$0
Rigid 3	$26	$13	$10	$0
Overlay 1	$435	$252	$192	$6
Overlay 2	$101	$57	$44	$0
Overlay 3	$462	$266	$204	$7
Overlay 4	$114	$65	$49	$0

* These scenarios address multiple well sites. The road damage costs in these columns represent the cost of each additional well.

Fee is calculated by multiplying the applicable fee per lane mile times the number of lane miles on the designated route.

EXHIBIT B
Road Damage Assessment Fees
Existing Pad Sites

PAVEMENT SECTION	SCENARIO			
	E1 (per lane mile)	E1A* (per lane mile)	E2 (per lane mile)	E2A* (per lane mile)
Flex 1	$33,793	$26,372	$8,999	$578
Flex 2	$42,976	$32,267	$11,444	$736
Flex 3	$41,629	$31,256	$11,085	$713
Flex 4	$33,747	$25,338	$8,987	$577
Flex 5	$8,815	$6,619	$2,347	$151
Flex 6	$4,051	$3,041	$1,079	$69
Flex 7	$1,664	$1,249	$443	$28
Rigid 1	$286	$216	$75	$5
Rigid 2	$64	$48	$17	$0
Rigid 3	$19	$13	$6	$0
Overlay 1	$334	$252	$88	$6
Overlay 2	$77	$57	$20	$0
Overlay 3	$357	$266	$95	$7
Overlay 4	$87	$65	$23	$0

* These scenarios address multiple well sites. The road damage costs in these columns represent the cost of each additional well.

Fee is calculated by multiplying the applicable fee per lane mile times the number of lane miles on the designated route.

Sec. 13-523. Penalty for violation; other remedies.

(a) Any person, firm, or corporation who violates any provision of this article, including, but not limited to the failure to pay required fees, is guilty of a misdemeanor and, upon conviction, is punishable by a fine as provided in Section 1-8 of the Code of Ordinances of the city, or any amendment thereto or renumbering thereof, for violations of public health for each act of violation and for each day of violation.

(b) Any person, firm, or corporation who obstructs, impedes, or interferes with a representative of the city, with a representative of a city department, or with a person who has been ordered to abate a situation pursuant to this article, and who is lawfully engaged in such abatement is guilty of a misdemeanor and, upon conviction, is punishable by a fine as provided in Section 1-8 of the Code of Ordinances of the city, or any amendment thereto or renumbering thereof, for violations of public health for each act of violation and for each day of violation.

(c) In addition to proceeding under authority of subsections (a) and (b) of this section, the city is entitled to pursue all other criminal and civil remedies to which it is entitled under authority of statutes or other ordinances against a person, firm, or corporation that remains in violation of this article.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF GRAND PRAIRIE, TEXAS, THIS THE 18th DAY OF JANUARY, 2011.