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### LAND DISTURBANCE PERMIT PRE-CONSTRUCTION MEETING - TOPIC CHECKLIST

- \_\_\_\_\_ Attendance list filled out and proper contact information recorded
- \_\_\_\_\_ Notification of all construction activities, i.e. start date, approximate date of land disturbance, project phasing, special project considerations.
- \_\_\_\_\_ Explanation of Weekly Inspection Log and Inspection requirements. Distribution of weekly inspection forms.
- \_\_\_\_\_ Review of proposed Erosion and Sediment Control measures and installation schedule.
- \_\_\_\_\_ Transfer of Land Disturbance Permit.
- \_\_\_\_\_ Receipt and understanding of Section 412.120. of the Dardenne Prairie Municipal Code Plan Modifications During Construction Procedure.
- \_\_\_\_\_ Receipt and understanding of Section 412.130 of the Dardenne Prairie Municipal Code Inspections and Reports.
- \_\_\_\_\_ Receipt and understanding of Section 412.140 of the Dardenne Prairie Municipal Code Violations, Corrections and Enforcement.
- \_\_\_\_\_ Receipt and understanding of Section 412.180 of the Dardenne Prairie Municipal Code Surface Stabilization Requirements.
- \_\_\_\_\_ Receipt and understanding of Section 412.190 of the Dardenne Prairie Municipal Code Earthwork Requirements.
- \_\_\_\_\_ Receipt and understanding of Section 412.200 of the Dardenne Prairie Municipal Code Stormwater Conveyance Requirements.
- \_\_\_\_\_ Receipt and understanding of Section 412.210 of the Dardenne Prairie Municipal Code Sediment Control Requirements.
- \_\_\_\_\_ Receipt of Permit for Land Disturbance.

ATTENDEE SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_



## **Section 412.120. Plan Modifications During Construction.**

- A. Field Modifications. The permittee shall modify already approved plans or modify descriptions of pollution prevention methods in any of the following circumstances.
1. Inspections by the City Engineer or by the Missouri Department of Natural Resources indicate deficiencies.
  2. Inspections by the permittee indicate deficiencies.
  3. Either the permittee or the City Engineer determines that the current installations are ineffective in significantly minimizing or controlling erosion of land or sedimentation in streams or lakes.
  4. Either the City Engineer or the Missouri Department of Natural Resources determines that total settleable solids from a storm water outfall exceeds two and one-half (2.5) milliliters per liter per hour (ml/L/hr) or one-half (0.5) ml/L/hr in the event the land disturbance activity is within a valuable water resource area as determined by the Missouri Department of Natural Resources.
  5. Either the City Engineer or the Missouri Department of Natural Resources determines that violations of Water Quality Standards 10 CSR 20-7.031(3) may occur or have occurred.
  6. Either the City Engineer or the Missouri Department of Natural Resources determines that the pollution prevention methods submitted to the City Engineer, as required by this Chapter, are ineffective in preventing pollution of waterways from construction wastes, chemicals, fueling facilities, concrete truck washouts, toxic or hazardous materials, site litter or other substances or wastes likely to have an adverse impact on water quality.
- B. Submittal Of Amended Plans. The permittee shall submit for the City Engineer's approval amended plans and descriptions of pollution prevention methods in any of the following circumstances.
1. The permittee seeks to modify the originally approved plans for the design, operation or maintenance of erosion and sediment controls.
  2. The permittee modifies the design for the construction project for which the permittee submitted those originally approved plans, so as to significantly affect the quality of storm water discharges.
  3. The City Engineer determines that the temporary facilities or erosion and sediment controls installed according to approved plans fail to meet performance standards imposed by these regulations and that those failures require amendment of those plans and supporting documentation or calculations.

## **Section 412.130. Inspections and Reports.**

- A. City Of Dardenne Prairie Inspections.
1. The permittee consents to the City of Dardenne Prairie inspecting the proposed development site and all work in progress and to payment of additional administration and inspection fees. In order to recoup the actual costs for administration and field inspection of land disturbance and erosion control at the development site, the costs associated with administration of the land disturbance permit and associated field inspections shall be reimbursed to the City based on periodic billings to the permittee.
  2. The City Engineer shall make inspections and notify the permittee in writing when the work fails to comply with the conditions of the land disturbance permit.

3. The permittee shall notify the City Engineer at least two (2) working days before the following activities to obtain timely inspection:
  - a. Establishment of tree preservation and stream buffer boundaries. Refer to Section 412.110(3);
  - b. Start of land disturbance or construction;
  - c. Installation of erosion and sediment controls;
  - d. Completion of site clearing;
  - e. Completion of rough grading;
  - f. Completion or suspension of final land disturbance activity;
  - g. Close of the construction season; and
  - h. Completion of final landscaping.
4. The City Engineer shall inspect the property periodically for compliance with these regulations and after any notice to correct issued pursuant to Subsection (B) of Section 412.140. The City Engineer may inspect the property upon receipt of a citizen complaint concerning erosion or sediment control issues.

B. Permittee Inspections and Reporting.

1. The permittee shall make regular inspections of the permitted site, observing all erosion and sediment control and other pollutant control measures, outfalls and offsite receiving waters. The inspections must be conducted by a person knowledgeable in the principles and practice of erosion and sediment controls, who possess the skills to assess conditions at the construction site that could impact storm water quality and to assess the effectiveness of the erosion and sediment controls used.
2. Inspections must be made by the permittee at least once per week and no later than two (2) days after a substantial rain event. A reduction in the weekly inspections may be waived by the City Administrator upon recommendation of the City Engineer for the following reasons:
  - a. The entire site is temporarily stabilized;
  - b. Runoff is unlikely due to winter conditions, such as snow cover or frozen ground; and
  - c. Construction is during arid periods when no erosion or sediment has occurred.
    - a. **For land disturbances greater than one (1) acre, inspections by the permittee shall be documented in written form on reports with copies submitted to the City Engineer at the time interval specified in the permit. A report of each inspection shall be kept on-site by the permittee if possible. Otherwise, the inspection form will be retained by the permittee at its closest business office located within the City of Dardenne Prairie. Falsification of reports is in violation of the permit and cause of immediate suspension or revocation of the permit. The inspection reports are to include the following minimum information:**
  - d. Inspector's name and signature;
  - e. Date of inspection;
  - f. Observations relative to the effectiveness and deficiencies of the erosion and sediment controls and other pollution prevention controls;
  - g. Actions taken or necessary to correct deficiencies, including the log of field changes to the approved plan during the period covered by the report;
  - h. A listing of areas where land disturbance activities have permanently or temporarily stopped; and
  - i. Storm water sampling information and analytical results, when applicable.
3. The permittee shall be responsible for correcting any deficiencies identified within seven (7) calendar days of the date of inspection required by this Subsection identifying these deficiencies.

4. The City Engineer shall make additional inspections as necessary to ensure the validity of the reports filed and, where applicable, to confirm the correction of reported deficiencies.

#### **Section 412.140. Violations, Corrections and Enforcement.**

##### **A. Violations.**

1. It shall be a violation of this Chapter to construct, enlarge, alter, repair or maintain any land disturbance activity, excavation or fill, or cause the same to be done, contrary to any provision of this Chapter.
2. It shall be a violation of this Chapter to fail to install and maintain any erosion and sediment control measures and systems authorized and required by a duly issued land disturbance permit.
3. It shall be a violation of this Chapter to fail to comply timely with any notice to correct issued pursuant to Subsection (B) of this Section or correct timely any deficiencies identified by the permittee pursuant to Section 412.130(B)(4) above.
4. The need to halt or reduce the permitted construction or grading activity in order to maintain compliance with the permit conditions shall not be a defense to the permittee in an enforcement action.

##### **B. Notice To Correct, Notice Of Violation And Service Of Notices.**

1. Upon confirming any violation or deficiency, the City Engineer shall issue a written notice to correct directing abatement of those violations and/or correction of that deficiency within seven (7) calendar days. The notice shall state that failure to comply with its terms shall constitute an additional violation of this Chapter.
2. Upon confirming failure to comply timely with any notice to correct, the City Engineer shall issue a written notice of violation, including a stop work order and notice of fines as authorized by Subsection (C) of this Section.
3. Notwithstanding the foregoing provisions of this Subsection, when the City Engineer finds that any person has undertaken land disturbance activity without a land disturbance permit required by this Chapter, the City Engineer shall issue a notice of violation including a stop work order and notice of fines as authorized by Subsection (C) of this Section and such fines shall accrue from the day on which such unauthorized land disturbance commenced.
4. The City Engineer shall serve any written notice authorized by this Subsection by posting one (1) copy at the work site and by hand-delivering or mailing other copies to any and all persons responsible for the violation or deficiency.

##### **C. Enforcement.**

1. Stop work order. The City Engineer shall also have the right to stop all or any part of the construction activities and development until all corrections set out in such notice have been satisfactorily made. To that end, the City Engineer shall issue and post on the site a written order directing that such construction activities and development be stopped immediately and shall serve that written order upon any person, firm, corporation or business engaged in such construction activities and development at the site that is the subject of the violation. Every day that such work continues shall constitute a separate violation. This Chapter does not preclude remedies available under Federal, State or common law.

2. Forfeiture of performance guarantee. In the event of a violation or deficiency that is not resolved in a reasonable time, the performance guarantee proceeds may be used by the City of Dardenne Prairie to install pollution prevention controls to stabilize the site subject to the land disturbance permit. Prior to resumption of work, permittee must post a new performance guarantee in an amount determined pursuant to Section 412.080.
3. Fines. Any person responsible for a violation of this Chapter shall be guilty of a misdemeanor and liable for a fine not to exceed one thousand dollars (\$1,000.00) a day. Every day that such violation is ongoing shall constitute a separate violation.
4. Enforcement. It shall be the duty of the City Engineer to enforce this Chapter. In discharging that duty the City Engineer may request and shall receive, so far as may be necessary in the discharge of that duty, the assistance and cooperation of other City of Dardenne Prairie Officials.
5. Actions for fines and injunctive relief. In the event of a violation, the City Engineer may request the City Attorney to institute in the Municipal Court an appropriate action for fines and injunctive relief against the person or persons responsible for that violation.

### **Section 412.180. Surface Stabilization Requirements.**

- A. Surface Stabilization Techniques. Bare ground must be stabilized by vegetation, rock surfacing, erosion control blankets and netting, soil binders, structural topping, like concreting or other techniques authorized by the Design Manual or approved pursuant to Section 412.100 above. With respect to vegetation, the following provisions shall also apply.
  1. Temporary seeding shall be used if the area will be disturbed later in the development. The area must be vegetated by permanent seeding or sodding, when no further land disturbance will occur.
  2. Seeding, fertilizing and mulching shall be applied at the rates and times specified in the Design Manual.
  3. Mulch can be used as temporary cover in unseeded areas to protect against erosion over the winter or until final grading and shaping can be accomplished. Application rates are shown in the Design Manual.
  4. Temporary seeding and mulching shall be placed on seventy percent (70%) of the total disturbed site area according to the stabilization schedule.
  5. Temporary seeding may be suspended in portions of the project area which have an active building permit. Upon completion of the building activity, the site must be permanently stabilized.
  6. Seeded areas shall be re-fertilized four (4) weeks after initial seeding. The seeded area shall be inspected at that time for uniform cover and adequate density. All areas which are bare and sparse (less than thirty percent (30%) ground cover) shall be reseeded and mulched.
  7. Non-degradable mats shall be used only as a permanent installation and in areas that will not be mowed.

B. Surface Stabilization Schedule. Land disturbance activities shall be scheduled as provided in the table below:

**Exhibit 5 — Soil Stabilization Schedule**

<b>Soil Disturbance Activity or Condition</b>	<b>Required Stabilization Time</b>
Soil disturbance has ceased in areas greater than 2,000 square feet	14 days
After construction of dikes, swales, diversions and other concentrated flow areas	5 days
When slopes are steeper than 3 horizontal to 1 vertical	7 days
When slopes are greater than 3% and longer than 150 feet	14 days
Perimeter controls around soil stockpiles	End of workday
Stabilization or covering of inactive stockpiles	30 days
When land disturbance is completed, permanent soil stabilization must be installed	30 days

C. Land Disturbance Phasing. Land disturbance activities should be scheduled in stages of development, so that only the areas that are actively being developed are exposed. Land disturbance areas exceeding ten (10) acres may require phasing, if the City Engineer determines that runoff from the land disturbance area may adversely affect other property.

**Section 412.190. Earthwork Requirements.**

- A. Surface water shall be diverted from the face of all cut and fill slopes exceeding eight (8) feet in vertical elevation.
- B. Slope breaks shall be provided whenever the vertical elevation of any slope exceeds twenty (20) feet.
- C. Diversion berms shall not exceed eight hundred (800) feet in length.
- D. No excavation shall be made so close to the property line to endanger any adjoining public or private street without supporting and protecting such public or private street or property from settling, cracking or other damage.
- E. No fill material shall be placed so as to cause or to allow the same to be deposited upon or to flow onto another property without written consent of the owner.
- F. No fill material shall be placed so as to cause or to allow the same to be deposited upon or to flow onto any public street, walk, place or way, nor so close to the top of a bank of a channel as to create the possibility of bank failure.
- G. Materials for fills shall consist of material obtained from excavation of banks, borrow pits or other approved source. Material shall be free of vegetative matter and deleterious material and shall not contain large rocks or lumps except as certified by a geotechnical engineer to be acceptable fill material.

- H. No cut or fill slope shall be made steeper in slope than three (3) horizontal to one (1) vertical without a geotechnical report and approval by the City Engineer.
- I. Individual and isolated slopes, rock dikes, undisturbed natural slopes and slopes blending with the natural terrain may be steeper than the requirements as approved by the City Engineer.
- J. All fills and trench backfills shall be compacted to the minimums as defined in the Design Manual. Compaction of fills and backfills must be certified by a geotechnical engineer.
- K. Solid rock, shale, tree stumps, masonry and other obstructions shall be removed to a depth of two (2) feet below finished grade or pavement subgrade.

**Section 412.200. Storm Water Conveyance Requirements.**

- A. Temporary conveyance of storm water during land disturbance activities depends upon the peak runoff for the design storm and a suitable method to prevent erosion after construction. The requirements listed below shall be used for temporary conveyance of storm water
  - 1. All drainage shall be designed to transport surface waters to the nearest practical storm drain, natural watercourse or street as approved by the City Engineer.
  - 2. Diversion channels and ditches are to be designed to a non-erosive velocity as defined in the Design Manual or the geotechnical report required by Section 412.060(2)(a). Diversion ditch length shall not exceed eight hundred (800) lineal feet.
  - 3. A rock outlet is required at all pipe and improved channel discharges to open watercourses. The maximum design velocity shall be ten (10) feet per second (fps). If the discharge velocity exceeds ten (10) fps, an engineered energy dissipater may be required as determined by the City Engineer.

**Section 412.210. Sediment Control Requirements.**

- A. A temporary construction vehicle wash-off pad is required to avoid tracking mud onto public roads and must be located where construction traffic leaves the site. The permittee shall remove any mud, sediment or debris tracked onto public roads by sweeping or other mechanical means.
- B. Sediment basins shall be used to meet water quality discharge requirements and predeveloped runoff rates during land disturbance activities. Sediment basins shall be designed for the following criteria.
  - 1. Sediment volume shall be determined from the Natural Resources Conservation Service's Revised Universal Soil Loss Equation (RUSLE).
  - 2. Wet volume shall contain the total runoff produced from the six (6) month twenty-four (24) hour storm.
  - 3. Dewatering time shall be twenty-four (24) hours for the total volume of wet storage of the basin.
  - 4. The outlet must be designed to convey the peak 10-year runoff with a minimum one (1) foot freeboard between the water surface of the outlet and the top of the basin embankment.
  - 5. Other sizing requirements are described in the Design Manual.