

City of O'Fallon – Engineering Department

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Grading Permit Application

Permit applications are now submitted online through the O'Fallon Portal, called the O'Fallon Permitting, Licensing, and Enforcement portal (OPLE). This portal allows you to apply for permits, schedule inspections, pay for permits, and view your permitting information realtime online.

<http://www.ofallon.mo.us/engineering>

The portal can be viewed from any browser on any device connected to the

This type of permit is a **Permit**, when submitting online.

If you have not tried the portal before, please visit the site and click on the 'Account Login' button. Under the area to input the login credentials, select "FORGOT YOUR USERNAME OR PASSWORD" and your login credentials will be e-mailed to you.

Any Development within the Floodplain requires a Flood Plain Development Permit.

This Grading Plan Application and Checklist outlines the items typically addressed with the initial submittal of a Grading Plan. This checklist is a guide to the generally required information on a Grading Plan, but may not be inclusive of all the information that may be required to meet City Code. Please refer to Chapter 405-Subdivision and Land Development of The O'Fallon Municipal Code for specific plan requirements.

Below is the remaining checklist that is still required to be adhered to.

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Application Fee: Two percent (2%) of the estimated cost of Grading and Sediment Erosion Control reviewed by the Engineering Department due at the time of plan approval. Make payable to the City of O'Fallon.

Submittal Fee: (**New in 2016) Refer to municipal code Chapter 4 (Notes and Appendixes), specifically Appendix B Schedule of Fees, Costs and Expenses. A two hundred dollar (\$200) submittal fee (for the first submittal only) shall be made, ONLY if the grading plan is separate from construction site plans. The submittal fee comes out of the above application fee.

All developments within the City of O'Fallon with the exception of building foundation excavation, which propose to alter the natural or existing grade, including excavating, grubbing, filling, stockpiling, stripping, quarrying or any combination thereof of fifty (50) cubic yards or more shall submit a *Grading Plan* for review. Staff will conduct a comprehensive review of the applicant's submission and provide a listing of any items that will need to be corrected, modified, or amended in order to meet the City of O'Fallon standards and specifications as outline in Chapter 405: Subdivision and Land Development, of the O'Fallon Municipal Code. The *Grading Plan* will only be approved once all outstanding items have been addressed including the recording of any off-site easements to the satisfaction of the Engineering Division. Approvals that are required by other Municipal, County or State agencies which have jurisdiction in the area shall provide written confirmation of their approvals to the City prior to Final Approval of the *Grading Plan* by the City of O'Fallon.

Filing Procedures: With regard to any real property within the City of O'Fallon, the owner(s) of real property must have first obtained an approval of the applicable site plan, preliminary plat or area plan of a proposed land development project prior to submitting a *Grading Plan* for said proposed land development project. (Ordinance #5270-Section 405.070) The owner/developer shall submit five (5) copies of the proposed grading plan along with a completed application form and checklist signed by both the owner/developer and applicant to the City Engineer.

The application shall be accompanied by the following information:

- Provide an Engineers Cost Estimate for the estimated cost of "Grading and Sediment Erosion Control". The Engineers Cost Estimate shall include any structural, material or physical change to the site which include clearing and grubbing, grading quantity in cubic yards including permanent drainage swales, siltation/erosion control, construction of sediment basin(s)/trap(s), permanent and/or temporary storm sewers, vegetation and maintenance cost (sediment removal, repair, dewater, restoration, etc.) associated with all sediment erosion controls. Other items, such as the demolition of any existing structures or buildings, sink hole remediation, existing well or cistern capping, retaining walls outside detention facilities or any other improvements required or deemed necessary with the approved *Grading Plan*.
- This cost shall be estimated using the unit cost as published and updated by St. Louis County. The attached schedule of unit prices is to be used when possible. Items not in the schedule will be estimated by the Consulting Engineer and reviewed and approved by the City.
- The developer shall post a financial guarantee of performance (per an approved cost estimate) prior to Grading Plan approval as required by Article 405 of Subdivision Ordinance.**

The following information is required for all *Grading Plan* submittals for approval. The required information may be combined for presentation on one (1) or more drawings or maps. The City Engineer may request that the information be presented on drawings or maps in addition to those submitted in the interest of clarity, speed and efficiency in the review process. In all cases the *Grading Plan* submission should include a signed *Grading Plan Application* and completed checklist with all information as required per that checklist. Below is a listing of items that are to be addressed on all *Grading Plan* submittals to the Engineering Division for review.

The Grading Plan shall confer upon the developer, for a period of one (1) year from the date of approval, the conditional right that the general terms and conditions under which the approval was granted will not be changed by the City Engineer. This one (1) year period may be extended by the City Engineer if the developer has applied in writing for such

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an extension and the City Engineer determines a longer period should be granted due to unusual circumstances. If an extension is not granted, the grading plan approval is null and void.

CHECKLIST (In the space provided, indicate which Sheet the Item is located)

Sheet # General Requirements

The Grading Plans shall be submitted on 24"x36" sheets with north arrow and scale per ordinance. The scale shall not be greater than one (1) inch equals twenty (20) feet nor less than one (1) inch equals two hundred (200) feet and of such accuracy that the City Engineer can readily interpret the plan and shall include more than one (1) drawing where required for clarity.

The Grading Plan shall be designed and prepared by a qualified land planner, registered professional architect, engineer or land surveyor with each sheet sealed, signed with original signature (not stamped) and dated. It shall include the name and address of the property owner(s), developer(s) and designer(s). (Per MO Econ. Dev. requirement)

Plan submittal shall include all grading and sediment erosion control notes, grading plan with existing and proposed contours, drainage area maps showing acreage of existing drainage areas to existing discharge points of the site and proposed drainage areas with acreage to each sediment basin/trap and any pertinent details.

Ensure that all improvements not associated with grading are not shown on the plans. Lot lines, lot numbers, right-of-way lines and street names shall be shown. Grading permits will be issued for grading, siltation control and any other improvements necessary to complete the rough grading of the site.

Provide a copy of the DNR Land Disturbance permit and a Storm Water Pollution Prevention Plan, if required. It is required for developments 1.00 acre and larger.

When required, obtain approval from all responsible agencies including, but not limited to, the appropriate fire protection district, water supply district, sanitary sewer district, MoDOT, the Army Corp of Engineers and/or Missouri Dept. of Natural Resources.

Sheet # Plan Requirements

Provide a location map of the site on the cover sheet with north indicated.

Provide the total area of the site in acres to the nearest tenth of an acre.

Provide the total disturbed area of the site in acres to the nearest tenth of an acre.

Plans shall indicate a reference benchmark and a site benchmark on USGS datum that is used to tie in the elevation information.

Note the appropriate F.I.R.M. panel number and date, flood zone and latest revision date for the property.

Provide the City of O'Fallon construction working hours on the plans per City Ordinance 3429 as shown in Section 500.420 of the Municipal Code of the City of O'Fallon as follows:

Construction work shall only be allowed during the following hours:

October 1 -- May 31

7:00 A.M. to 7:00 P.M.

Monday—Sunday

June 1 -- September 30

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6:00 A.M. to 8:00 P.M.

Monday—Friday

7:00 A.M. to 8:00 P.M.

Saturday and Sunday

Construction work to be done outside of these hours requires prior written approval from the City Administrator or City Engineer.

- List all utility companies serving the development including the City of O’Fallon. The City of O’Fallon utility locates under its maintenance responsibility may include water, sanitary sewer, storm sewer and traffic locates.
- List the requirements and conditions of approval from the Planning and Zoning Commission on the cover sheet.
- Provide the Planning and Development Division file number and approval date in the lower right corner of the cover sheet.
- Grading plans that are being prepared in conjunction with an approved preliminary plat shall include an estimate of the quantity of soil to be removed (spoils) associated with the contemplated improvements. It shall be noted that these quantities are estimates and will change based on the actual size of sewers and foundations constructed and the type of material excavated.
- Include a note stating, “No slopes shall be steeper than 3 (horizontal) to 1 (vertical) or as approved by a Geotechnical Engineer.” All certifications from a Geotechnical Engineer specializing in slope stabilization for any slopes within the project area that exceed 3:1 and any vegetated drainage system that may be prone to erosion shall be in writing.
- Include a note stating, “Developer must supply City construction inspectors with soil reports prior to and during site soil testing.” Refer to Section 405.210(F) of the Municipal Code of the City of O’Fallon for requirements of the soils report. Be advised that if this information is not provided to the City’s Construction Inspector the City will not allow grading or construction activities to proceed on any project site.
- Include a note stating, “All fill placed under proposed storm and sanitary sewer, proposed roads and/or paved areas shall be compacted to 90% of maximum density as determined by the Modified AASHTO T-180 Compaction Test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. All fill placed in proposed roads shall be compacted from the bottom of the fill up. All tests shall be verified by a soils engineer concurrent with grading and backfilling operations and supplied to the City of O’Fallon in a timely manner.” Note that the moisture content of the soil in fill areas is to correspond to the compactive effort as defined by the Standard or Modified Proctor Test. Optimum moisture content shall be determined using the same test that was used for compaction. Soil compaction curves shall be submitted to the City of O’Fallon prior to the placement of fill. Proof rolling may be required to verify soil stability at the discretion of the City of O’Fallon. (Ordinance #5242-Section 405.070)
- Note that all low places whether on-site or off-site are graded to allow drainage. This can be accomplished with temporary ditches. Any off-site drainage easements will be acquired before grading begins.
- Note that graded areas shall be seeded and mulched (strawed) within fourteen (14) days of stopping land disturbance activities. Vegetative growth shall be established within six (6) weeks of grading work being stopped or completed in any area. Vegetative growth shall be sufficient to prevent erosion (70% coverage per square foot) as required by MDNR and EPA. (Ordinance #5242-Section 405.070)
- Include a note stating, “The Permittee shall assume complete responsibility for controlling all siltation and erosion of the project area. The Permittee shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with the clearing operations and be maintained throughout the project until acceptance of the work by the City of O’Fallon and as necessary by MoDOT. The Permittee’s responsibilities shall include all design and implementation as required to prevent erosion and the depositing of silt.

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The City of O'Fallon and as required by MoDOT may at their option direct the Permittee in his methods as deemed fit to protect property and improvements. Any depositing of silt or mud on new or existing pavement shall be removed immediately. Any depositing of silts or mud in new or existing storm sewers or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the City of O'Fallon and as required by MoDOT."

- Note that all erosion control systems are inspected and corrected weekly, especially within 48 hours of any rainstorm resulting in one-half inch of rain or more. Any silt or debris leaving the site and affecting public rights-of-ways or storm water drainage facilities shall be cleaned up within 24 hours after the end of the storm.
- Note on the plans that clearing limits shall be visibly marked in the field prior to removal of trees.
- Provide for the requirements of the City's Tree Preservation Ordinance (Chapter 230), such as showing the limits of all trees to remain, providing the total area of trees to be cleared and to remain in acres to the nearest tenth of an acre, providing tree preservation calculations and a landscape plan for any trees that are to be replaced.
- The property shall be identified by lot lines and location, including dimensions and bearings, correlated with the legal description of said property. Show the scale, north point and boundary dimensions.
- Ensure that the identity of all natural features such as woodlots, streams, rivers, lakes, drains, topography (at least five-foot contour intervals; when terrain is irregular or drainage critical, contour intervals shall be two (2) foot) and similar features. All topographic data shall directly relate to U.S.G.S. datum.
- Ensure that all existing manmade features such as buildings, structures, existing entrances on both sides of the street, dams, fences, retaining walls, bridges, culverts, drains, etc., existing utilities such as water mains, sewer lines, high tension towers, power lines, communication lines, pipe lines, etc., excavations, easements, etc. and adjacent properties within three hundred (300) feet with existing uses identified. Areas outside the property boundaries can be shown on the plans or provided separately using aerial photography, U.S.G.S. maps or other sources. The site and pertinent information must be clearly shown on any attached exhibits.
- Existing and proposed topography shall be shown at two (2) foot contour intervals for plans that scale 1" = 50' or larger. Existing and proposed topography with scales smaller than 1" = 50' may be shown at five (5) foot contour intervals.
- Provide any construction signage required for any work proposed within the right-of-way.
- Provide a traffic control plan per MODOT or MUTCD specifications, whichever is most stringent. Any road closures that are proposed must complete a road closure application.
- Provide the location of and details for all siltation control devices (silt fences and/or sediment basins/traps) per Chapters 405 and 515 of the City of O'Fallon Municipal Code following "St. Charles County Soil and Water Conservation District Erosion and Sediment Control" guidelines.
- Provide temporary sediment basin(s)/trap(s) and calculations.
- Provide erosion control in swales with velocities over two (2) feet per second. Refer to "St. Charles County Soil and Water Conservation District Erosion and Sediment Control" guidelines for erosion control requirements in swales with velocities above two (2) feet per second.

Sheet # Details

- Provide a table for the establishment of vegetation which shall include seeding periods and seeding, mulch and fertilizer rates on the site following "St. Charles County Soil and Water Conservation District Erosion and Sediment Control" guidelines.
- Provide a 20'x 50' temporary truck wash off area (prefer 6" depth - 2" clean rock) for use during construction and

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include a detail of the rock pad. Add note to plans, "If water is not available, a water truck will be provided."

- Note that drainage swale locations are shown and provide a typical swale section.
- Provide detail(s) of all sediment basin(s) and trap(s).
- Provide detail for all methods of sediment control to be used.

Sheet # Easements, Right-of-Ways, & Warranty Deeds

- Show the recorded book and page for each existing deed, easement and/or right-of-way.
- Show the location along with book and page or provide a recorded easement document for any proposed off-site grading and/or off-site drainage easements necessary to complete the grading and/or provide adequate and safe storm water drainage for this development.
- Provide a book and page of any recorded or a signed copy of any proposed cross-access easement required for this development and show the limits on the plan.

Sheet # Floodplain Requirements (Chapter 415)

- Provide a completed Floodplain Development Application from the City of O’Fallon for any work that is proposed within the floodplain limits. A No-Rise certificate signed, sealed and dated by a Missouri Registered Professional Engineer will be required prior to the issuance of a Floodplain Development Permit for any activity within the floodway.
- Show the proposed and existing floodplain and floodway limits with base flood elevations on the plan.
- Provide the 25, 50 and 100 year storm high water elevations for creeks within the development that are to remain.
- Demonstrate compliance with Article 415 of the City Code, specifically compensatory storage for any fill placed in the special flood hazard area.
- Provide approval from the US Army Corps of Engineers and Missouri Department of Natural Resources where required. If a permit is not required, the developer shall provide documentation from the Corp of Engineers and/or DNR exempting the proposed development from the permit requirements.
- Provide a list of any lots that will be within the floodplain after the proposed grading. An Elevation Certificate signed, sealed and dated by a Missouri Registered Professional Engineer will be required showing that all structures will have a lowest floor elevation a minimum of one (1) foot above the base flood elevation.
- Provide a LOMR from FEMA for any land removed from the floodplain. Any cost to the City due to public notification or letters required by FEMA, to be sent by or published by the City will be reimbursed by the developer.

Sheet # Retaining Walls

- Provide a wall on the plan view with the following information:
 - Top of wall and bottom of wall ground elevations.
 - Storm water drainage away from or around wall. Storm water shall not flow over wall.
 - Walls in excess of 6’ (30” when supporting a walking surface) shall have a 4’ high fence or handrail on top.
 - Existing and proposed grades.

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Provide a wall profile with the following information:

- Top of wall and footing elevations.
- Show the steps in the footing.
- Location of the geogrid designated on the profile.
- Existing and proposed grades.

- Provide a Retaining Wall Detail.
- Provide shop drawings and calculations for each retaining wall. Retaining wall structural calculations with a 1.5 overturn factor of safety, per IBC code, signed, sealed and dated by a Missouri Registered Professional Engineer.