

**DEVELOPMENT NOTES:**

- Area of Tract: 7.93 Acres more or less
- Proposed Zoning: C-2 General Business District
- Dimensional Zoning Standards  
 Minimum Site Area: Five (5) acres  
 Maximum Lot Coverage: No Limit  
 Maximum Building Height: Fifty (50) feet  
 Front Yard: Twenty-five (25) feet  
 Side Yard: Zero (0) feet  
 Rear Yard: Zero (0) feet
- Easements are as follows:  
 All easements along the front property lines are 10 feet wide, unless noted otherwise.  
 All easements along the side property lines are 5 feet wide, unless noted otherwise.  
 All easements along the rear property lines are 10 feet wide, unless noted otherwise.
- Proposed development to be served by the following:  
 Water: City of O'Fallon 636-240-5555  
 Sewer: City of O'Fallon 636-240-5555  
 Telephone: Century Tel 636-332-3011  
 Gas: Laclede Gas 636-658-5417  
 Electric: Ameren UE 636-925-3216  
 O'Fallon Fire Protection District  
 Fort Zumwalt School District
- Area of Disturbance: 7.72 Acres more or less
- All Proposed utilities to be located underground.
- According to the FIRM Flood Insurance Rate Map 29183C0237 E Dated August 2, 1996, this development is located in Zone X.
- This plan complies with the City of O'Fallon Comprehensive Plan.
- Tree Protection and Preservation shall be met and will be provided for on the Improvement Plans.
- Landscape shall be provided to meet or exceed the city of O'Fallon Tree Preservation Ordinances.
- This site will be in compliance with Phase II Illicit Storm Water Discharge guidelines per Ordinance 5082.
- The size of the proposed utilities will be determined during the improvement plan process.
- The proposed development is in the Belleau Creek watershed. Detention of the differential runoff shall be provided for the 100-year storm.
- All cut and fill slopes should be a maximum of 33% slope (3:1) after grading.
- Appropriate measures will be taken to ensure that this development will not contribute to the existing erosion problem in the Bramblett Road roadside ditch. Details of said measures will be determined during the Improvement Plan process.
- Storm Water Detention shall comply with City of O'Fallon Standards.
- All clearing limits shall be visibly marked in the field prior to removal of trees.
- A separate permit from MDDOT is required for utility work.
- All construction signs shall be contractor furnished.

**GENERAL NOTES**

- GN #1 Driveway locations shall not interfere with the sidewalk handicap ramps, or curb inlet sumps
- GN #2 Sidewalks, curb ramps, ramps and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAG guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer.
- GN #3 Truncated domes for curb ramps located in public right of way shall meet ADA requirements and shall be constructed using red pre cast truncated domes per pavement details.
- GN #4 Any proposed pavilions or playground areas will need a separate permit from the Building Division.
- GN #5 The Contractor is responsible to call Missouri One Call and The City of O'Fallon for the location of utilities. Contact the City of O'Fallon (636) 379-3814 for the location of City maintained cable for street lights and traffic signals, all other utilities call Missouri One Call 1-800-DIG-RITE. 1-800-344-7483
- GN #6 All proposed utilities and/or utility relocations shall be located underground.
- GN #7 All proposed fencing requires a separate permit through the Planning and Development Division.
- GN #8 All construction operations and work zone traffic control within the right of way will follow MoDOT or M.U.T.C.D. standards whichever is more stringent.
- GN #9 All free standing signs shall be located a minimum of ten (10) feet away from any right of way line and/or property line and a minimum of three (3) feet from the back of curbing or sidewalk. All signs shall abide by the regulations for visibility at corners, including corners from driveways and the street it intersects per Section 400.260 of the O'Fallon Zoning Code.
- GN #10 All subdivision identification or directional sign(s) must have the locations and sizes approved and permitted separately through the Planning and Development Division.
- GN #11 Materials such as trees, organic debris, rubble, foundations and other deleterious material that are not to be re-used, they shall be removed from the site and disposed of in compliance with all applicable laws and regulations. If the materials listed previously are reused, a letter from a soils Engineer must clarify amount, location, depth, etc. and be approved with the construction plans. Landfill tickets for such disposal shall be maintained on file by the developer. Burning on site shall be allowed only by permit from the local fire district. If a burn pit is proposed the location and mitigation shall be shown on the grading plan and documented by the soils engineer.
- GN #12 Twenty-four (24) hours prior to starting any of the work covered by the above plans and after approval thereof, the developer shall make arrangements with the Construction Inspection Office to provide for inspection of the work, sufficient in the opinion of the City Engineer, to assure compliance with the plans and specifications as approved.
- GN #13 The City Engineer or their duly authorized representative shall make all necessary inspections of City Infrastructure, escrow items or infrastructure located on the approved plans.
- GN #14 City approval of the construction site plans does not mean that any building can be constructed on the lots without meeting the building setbacks as required by the zoning code.
- GN #15 All installations and construction shall conform to the approved engineering drawings. However, the developer chooses to make minor modifications in design and/or specifications during construction, he/she shall make such changes at his/her own risk, without any assurance that the City Engineer will approve the completed installation or construction. It shall be the responsibility of the developer to notify the City Engineer of any changes from the approved drawings. The developer may be required to correct the installed improvements so as to conform to the approved engineering drawings. The developer may request a letter from the Construction Inspection Division regarding and field changes approved by the City inspectors.
- GN #16 Lighting values will be reviewed on site prior to the final occupancy inspection.

- Flood plain Information**
- FP #1 A flood plain development application from the City is required for any work within the flood plain limits.
- Retaining Walls: Terraced and Vertical**
- RW #1 A permit is required for all retaining walls that are 48 inches or taller in height, measured from the top of the footing to the top of the wall or for walls that support a surcharge load or that alters the channelized drainage of any lot or drainage area.
- RW #2 Retaining walls will not be allowed in public right-of-way without written approval from the City Engineer.
- RW #3 Any retaining wall more than thirty (30) inches tall which supports a walking surface that is within two (2) feet of the wall will require a guard on the retaining wall.
- RW #4 Retaining walls that alter the channeled drainage of any lot or drainage area shall not be constructed without prior approval and permitting from the City of O'Fallon Engineering Department regardless of the height of the wall.
- RW #5 See section 405.275 of the City code for additional design requirements.

**Grading Notes**

- GRN #1 Developer must supply City construction inspectors with an Engineer's soils report prior to and during site grading. The soil report will be required to contain the following information on soil test curves (Proctor reports) for projects within the City:
- Maximum dry density.
  - Optimum moisture content.
  - Maximum and minimum allowable moisture content.
  - Curve must be plotted to show density from a minimum of 90% compaction and above as determined by the "Modified AASHTO T-180 Compaction Test" (A.S.T.M.-D-1157) or from a minimum of 95% compaction and above as determined by the "Standard Proctor Test AASHTO T-99, Method C" (A.S.T.M.-D-698). Proctor type must be designated on document.
  - Curve must have at least 5 density points with moisture content and sample locations listed on document.
  - Specific gravity.
  - Natural moisture content.
  - Liquid limit.
  - Plastic limit.
- 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.

GRN #2 All fill placed in areas other than proposed storm sewers, sanitary sewers, proposed roads, and paved areas shall be compacted from the bottom of the fill up in 8" lifts and compacted to 90% maximum density as determined by Modified AASHTO T-180 compaction test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. Ensure the moisture content of the soil in fill areas corresponds 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.

GRN #3 The surface of the fill shall be finished so it will not impound water. If at the end of a days work it would appear that there may be rain prior to the next working day, the surface shall be finished smooth. If the surface has been finished smooth for any reason, it shall be scarified before proceeding with the placement of succeeding lifts. Fill shall not be placed on frozen ground, nor shall filling operations continue when the temperature is such as to permit the layer under placement to freeze.

GRN #4 All sediment and detention basins are to be constructed during the initial phase of the grading operation or in accordance with the approved SWPPP.

GRN #5 When grading operations are complete or suspended for more than 14 days, permanent grass must be established at sufficient density to provide erosion control on site. Between permanent grass seeding periods, temporary cover shall be provided according to St. Charles Soil and Water Conservation District - Model Sediment and Erosion Control Regulations. All finished grades (areas not to be disturbed by improvements) in excess of 20% slopes (5:1) shall be mulched and tacked at a rate of 100 pounds per 1000 square feet when seeded.

GRN #6 No slopes shall exceed 3 (horizontal): 1 (vertical) unless otherwise approved by the soils report and specifically located on the plans and approved by the City Engineer.

GRN #7 All low places whether on site or off shall be graded to provide drainage with temporary ditches.

GRN #8 Any existing wells and/or springs that may exist on the property must be sealed in a manner that is acceptable to the City of O'Fallon Construction Inspection Department and following Missouri Department of Natural Resources standards and specifications.

GRN #9 All fill places under proposed storm sewers, sanitary sewers, proposed roads, and paved areas shall be compacted from the bottom of the fill up in 8" lifts and compacted to 90% maximum density as determined by Modified AASHTO T-180 compaction test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. 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. Ensure the moisture content of the soil in fill areas corresponds 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.

GRN #10 All trench back fills under paved areas shall be granular back fill, and compacted mechanically. All other trench back fills may be earth material (free of large clods, or stones) and compacted using either mechanical or water jetting. Granular material and earth material associated with new construction outside of pavements may be jetted, taking care to avoid damage to newly laid sewers. The jetting shall be performed with a probe route on not greater than 7.5 foot centers with the jetting probe centered over and parallel with the direction of the pipe. Trench widths greater than 10 feet will require multiple probes every 7.5 foot centers.

- Depth, Trench back fills less than 8 feet deep shall be probed to a depth extending half the depth of the trench back fill, but not less than 3 feet. Trench back fill greater than 8 feet in depth shall be probed to half the depth of the trench back fill but not greater than 8 feet.
- Equipment, The jetting probe shall be a metal pipe with an interior diameter of 1.5 to 2 inches.
- Method, Jetting shall be performed from the lowest surface topographic point and proceed toward the highest point, and from the bottom of the trench back fill toward the surface. The flooding of each jetting probe shall be started slowly allowing slow saturation of the soil. Water is not allowed to flow away from the trench without first saturating the trench.
- Surface Bridging, The contractor shall identify the locations of the surface bridging (the tendency for the upper surface to crust and arch over the trench rather than collapse and consolidate during the jetting process). The contractor shall break down the bridged areas using an appropriate method such as wheels or bucket of a backhoe. When surface crust is collapsed, the void shall be back filled with the same material used as trench back fill and rejected. Compaction of the materials within the sunken/jetted area shall be compacted such that no further surface subsidence occurs.

- GRN #11 Site grading.
- Within City right-of-way. Material is to be placed in eight (8) inch to twelve (12) inch loose lifts and compacted per the approved compaction requirements. One (1) compaction test will be performed every two hundred fifty (250) feet along the centerline for each lift.
  - Outside of City right-of-way. Material is to be placed in eight (8) inch to twelve (12) inch loose lifts and compacted per the approved compaction requirements. One (1) compaction test will be performed at two (2) foot vertical intervals and approximately every one thousand (1,000) cubic yards.

**SEEDING REQUIREMENTS**

Permanent Seeding	Dates for Seeding											
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Tall Fescue	O	O	O	O	O	O	O	O	O	O	O	O
Smooth Strome	O	O	O	O	O	O	O	O	O	O	O	O
Fescue & Strome	O	O	O	O	O	O	O	O	O	O	O	O
Fescue, Ryegrass & Bluegrass	A	A	O	O	O	P	P	O	O	P	P	A

Temporary Seeding	Dates for Seeding											
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Rye or Strome	A	A	O	O	O	O	O	O	O	O	O	A
Other	A	O	O	O	O	O	O	O	O	O	O	A

O = Optimum seeding dates  
 A = Acceptable seeding dates  
 P = Permitted seeding dates with reseeding 2 months later - Initially use 50% of seed and 75% of fertilizer. Reseed with additional 75% seed and remaining fertilizer.

**Minimum Fertilizer and Seeding Rates**

Permanent Seeding	Pounds per acre	Pounds Per 1000 sq. ft.
Tall Fescue	30	7.0
Smooth Strome	20	4.8
Mixture #1	20	5.7
Mixture #2	210	4.8

Temporary Seeding	Pounds per acre	Pounds Per 1000 sq. ft.
Rye or Strome	10	3.5
Other	20	2.5

Mixture #1 = Tall Fescue @ 100 pounds per acre and Strome @ 100 pounds per acre  
 Mixture #2 = Tall Fescue @ 100 pounds per acre, Perennial Ryegrass @ 100 pounds per acre, and Kentucky Bluegrass @ 10 pounds per acre  
 \* Seeding rates for slopes in excess of 20% @ 1/2 inch to 10 pounds per 1000 sq. ft.

**Fertilizer**

	Permanent Seeding (pounds per acre)	Temporary Seeding (pounds per acre)
Nitrogen	45	30
Phosphorus	65	30
Potassium	65	30
Lime - ENM	800	800

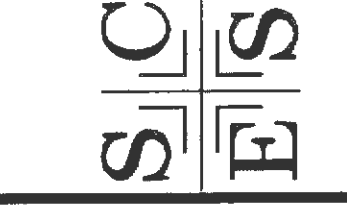
ENM = Effective neutralizing material per State evaluation of quarried rock.

**Erosion Control Notes**

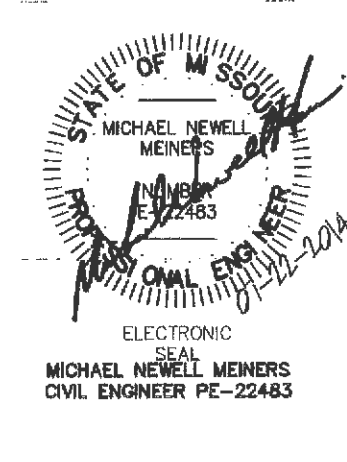
- EN #1 The Permittee shall assume complete responsibility for controlling all siltation and erosion of the project area. The Permittee shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods 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 needed by MoDOT. The Permittee's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. 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 and/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."
- EN #2 All erosion control systems are to be inspected and corrected weekly, especially within 48 hours of any rain storm resulting in one-half inch of rain or more. Any silt or debris leaving the site and affecting public right of way or storm water drainage facilities shall be cleaned up within 24 hours after the end of the storm.
- EN #3 Erosion control devices (silt fence, sediment basin, etc.) shall be in accordance with St. Charles County Soil and Water Conservation District Erosion and Sediment Control guidelines.
- EN #4 This development is required to provide long term post construction BMP's such as; low impact design, source control and treatment controls that protects water quality and controls run off to maximum extent practical in compliance with Phase II Illicit Storm Water Discharge Guidelines. (Ord. 5082, section 405.0245)
- EN #5 Graded areas shall be seeded and mulched (strawed) within 14 days of stopping land disturbance activities. Unless it can be shown to the City Engineer that weather conditions are not favorable, vegetative growth is to be established within 6 weeks of stopping grading work on the project. The vegetative growth established shall be sufficient to prevent erosion and the standard shall be as required by EPA and DNR. (70% coverage per square foot) Ord. 5242, Section 405.070

HIGHWAY "K" RETAIL ACCESS DRIVE

ST. CHARLES ENGINEERING & SURVEYING, INC.  
 801 S. FIFTH STREET, SUITE 303  
 ST. CHARLES, MO 63301  
 TEL: (636) 947-0097  
 FAX: (636) 947-8446



ENGINEER SIGNATURE BLOCK



Developer / Owner Information  
**K PROPERTIES HOLDINGS, LLC**  
 1704 NORTH FOURTH STREET  
 ST. CHARLES, MO 63301  
 CONTACT: MIKE THOLE  
 (314) 220-1206

P+Z No. 18-12.05  
 Approval Date: May 2, 2013

City No.  
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