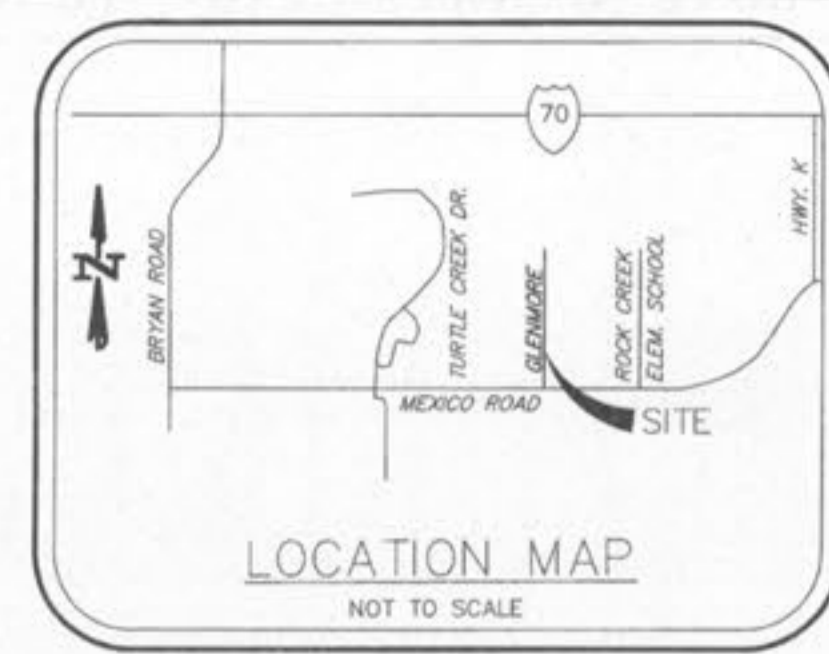


STANDARD SYMBOLS & ABBREVIATIONS	
TREE OR BUSH	○
LIGHT POLE	○
SANITARY SEWER & MANHOLE	○
STORM SEWER & INLET	○
MAILBOX	□
ELECTRIC LINE	—E—
GAS LINE	—G—
WATER LINE	—W—
TELEPHONE LINE	—T—
CABLE TV LINE	—CATV—
OVERHEAD WIRE	—OHW—
UTILITY POLE	○
UTILITY POLE W/ DOWN GUY	○
FIRE HYDRANT	○
WATER VALVE	○
WATER METER	○
GAS VALVE	○
ROAD SIGN	○
TELEPHONE PEDESTAL	○
FENCE	—x—

A SET OF CONSTRUCTION PLANS FOR GLENMORE LANE

A TRACT OF LAND BEING PART OF THE NORTHEAST QUARTER OF SECTION 31 TOWNSHIP 47 NORTH, RANGE 3 EAST OF THE FIFTH PRINCIPAL MERIDIAN ST. CHARLES COUNTY, MISSOURI



PREPARED FOR:
 D.J.A., L.L.C.
 2536 TOWN AND COUNTRY LANE
 ST. LOUIS, MISSOURI 63131

PRINCIPLES & STANDARDS:

1. All excavations, grading, or filling shall have a finished grade not to exceed a 3:1 slope (33%). Steeper grades may be approved by the designated official if the excavation is through rock or the excavation or the fill is adequately protected (a designed head wall or toe wall may be required). Retaining walls that exceed a height of four (4) feet shall require the construction of safety guards as identified in the appropriate section(s) of the adopted BOCA Codes and must be approved by the Building Department. Permanent safety guards will be constructed in accordance with the appropriate section(s) of the adopted BOCA Codes.
2. Sediment and erosion control plans for sites that exceed 20,000 square feet of grading shall provide for sediment or debris basins, silt traps or filters, staked straw bales or other approved measures to remove sediment from run-off waters. The design to be approved by the Designated Official. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
3. Where natural vegetation is removed during grading, vegetation shall be reestablished in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible during the next seeding period after grading has been completed.
4. When grading operations are completed or suspended for more than 30 days permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the City Engineer's recommendations. All finished grades (areas not to be disturbed by future improvement) in excess of 20% slopes (5:1) shall be mulched and tacked at the rate of 100 pounds per 1,000 square feet when seeded.
5. Provisions shall be made to accommodate the increased runoff caused by changed soils and surface conditions during and after grading. Unvegetated open channels shall be designed so that gradients result in velocities of 2 fps (feet per second) or less. Open channels with velocities more than 2 fps and less than 5 fps shall be established in permanent vegetation by use of commercial erosion control blankets or lined with rock rip rap or concrete or other suitable materials as approved by the City Engineer. Detention basins, diversions, or other appropriate structures shall be constructed to prevent velocities above 5 fps.
6. The adjoining ground to development sites (lots) shall be provided with protection from accelerated and increased surface water, silt from erosion, and any other consequence of erosion. Run-off water from developed areas (parking lots, paved sites and buildings) above the area to be developed shall be directed to diversions, detention basins, concrete gutters and/or underground outlet systems. Sufficiently anchored straw bales may be temporarily substituted with the approval of the City Engineer.
7. Development along natural watercourses shall have residential lot lines, commercial or industrial improvements, parking areas or driveways set back a minimum of 25 feet from the top of the existing stream bank. The watercourse shall be maintained and made the responsibility of the subdivision trustees or in the case of a site plan by the property owner. Permanent vegetation should be left intact. Variances will include designed stream bank erosion control measures and shall be approved by the City Engineer, FEMA and U.S. Army Corps of Engineers guidelines shall be followed where applicable regarding site development areas designated as flood plains and wetlands.
8. All lots shall be seeded and mulched at the minimum rates defined in Appendix A or sodded before an occupancy permit shall be issued except that a temporary occupancy permit may be issued by the Building Department in cases of undue hardship because of unfavorable ground conditions.

VEGETATIVE ESTABLISHMENT For Urban Development Sites APPENDIX A

- Seeding Rates:**
- Permanent:**
 Tall Fescue — 80 lbs./ac.
 Smooth Brome — 100 lbs./ac.
 Combined Fescue @ 40 lbs./ac. and Brome @ 50 lbs./ac.
- Temporary:**
 Wheat or Rye — 150 lbs./ac. (3.5 lbs. per 1,000 square foot)
 Oats — 120 lbs./ac. (2.75 lbs. per 1,000 square foot)
- Seeding Periods:**
 Fescue or Brome — March 1 to June 1
 August 1 to October 1
 Wheat or Rye — March 15 to November 1
 Oats — March 15 to September 15
- Mulch Rates:**
 100 lbs. per 1,000 sq. feet (4,356 lbs. per acre)
- Fertilizer Rates:**
 Nitrogen 30 lbs./ac.
 Phosphate 30 lbs./ac.
 Potassium 30 lbs./ac.
 Lime 600 lbs./ac. ENM*

* ENM = effective neutralizing material as per State evaluation of quarried rock.

O'FALLON NOTES

1. Underground utilities have been plotted from available information and therefore their locations shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans shall be the responsibility of the contractor, and shall be located prior to any grading or construction of the improvements.
2. 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. 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.
3. No area shall be cleared without the permission of the Project Engineer.
4. The City of O'Fallon shall be notified 48 hours prior to construction for coordination and inspection.
5. All existing site improvements shown to remain which are disturbed, damaged or destroyed shall be repaired or replaced to closely match pre-construction conditions.
6. All construction and materials shall conform to the current construction standards of the City of O'Fallon.
7. Any permits, licenses, easements, or approvals required to work on public or private properties or roadways are the responsibility of the developer.
8. No slopes shall exceed 3(Horizontal) : 1(Vertical).
9. 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 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 silts or mud in new or existing storm sewers or ditches shall be removed after each rain and affected areas cleaned to the satisfaction of the City of O'Fallon and as required by MODOT.
10. Erosion control systems shall not be limited to what is shown on the plan. Whatever means necessary shall be taken to prevent siltation and erosion from entering natural streams and adjacent roadways, properties and ditches.
11. All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
12. All sidewalks, curb ramps, ramps and accessible parking spaces shall be constructed in accordance with the current approved "Americans 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. Ensure at least one 8' wide handicap access aisle is provided and curb ramps do not project into handicap access aisles.
13. All sign post and backs and bracket arms shall be painted black using Carboline Rustbond Penetrating Sealer 50 and Carboline 133 HB point (or equivalent as approved by the City of O'Fallon and MoDOT). Sign designating street names shall be on the opposite side of the street from traffic control signs.
14. All new utility line shall be located underground.
15. All erosion control systems shall be inspected and necessary corrections shall be made within 24 hours of any rainstorm resulting in one-half inch of rain or more.
16. All graded areas that are to remain bare for over 2 weeks shall be seeded and mulched per DNR requirements.
17. Trees, organic debris, rubble, foundations and other deleterious material shall be removed for the site and disposed in compliance with all applicable laws and regulations. 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.
18. Traffic Control is to be per MODOT or MUTCD whichever is most stringent.
19. The location of and details for all siltation control devices (silt fences and sediment basins) must follow the "St. Charles County Soil and Water Conservation District Erosion and Sediment Control" guidelines.
20. Developer must supply City Construction Inspectors with soil reports prior to or during site soil testing. The soil report will be required to contain the following information on soil test curves (Proctor reports) for projects within the City:
 1. Maximum dry density
 2. Optimum moisture content
 3. Maximum and minimum allowable moisture content
 4. 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-1557) or from a minimum of 95% 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.
 5. Curve must have at least 5 density points with moisture content and sample locations listed on document.
 6. Specific gravity.
 7. Natural moisture content.
 8. Liquid limit.
 9. 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.
21. All installations and construction shall conform to the approved engineering drawings. However, if 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 any field changes approved by the City Inspectors.

ESTIMATED CONSTRUCTION & GRADING SCHEDULE

-INSTALL EROSION CONTROL	3/11/10
-DEMOLITION WORK	3/11/10 - 3/15/10
-PAVEMENT CONSTRUCTION	3/18/10 - 3/22/10
-FINISH GRADING, SEED AND MULCH	3/25/10 - 3/26/10

NOTE: DATES MAY VARY DUE TO INCLEMENT WEATHER.

A PERIOD OF ONE (1) YEAR FROM THE DATE OF THE PLANNING DEPARTMENT'S APPROVAL OF THE SITE PLAN IS PERMITTED. ANY COMPLETION DATE LONGER THAN THE ONE (1) YEAR PERIOD, OR AN EXTENSION OF THE TIME THEREOF, MUST BE REQUESTED IN WRITING BY THE DESIGN CONSULTANT AND APPROVED BY BOTH THE DIRECTOR OF PLANNING AND THE CITY ENGINEER.

NOTE: TEMPORARY VEGETATION TO BE IN PLACE DURING THE WINTER UNTIL THE TIME PERMANENT SEEDING AND MULCH CAN BE COMPLETED.

U.S.G.S. BENCHMARK

REFERENCE BENCHMARK (USGS): ELEV. 542.80
 THE STATION IS A U.S. & G.S. BRASS VERTICAL MARK DISC STAMPED "F 149 1935" SET IN A 6 INCH SQUARE CONCRETE MONUMENT, PROJECTING ABOUT 2.5 INCHES ABOVE THE GROUND SURFACE. THE STATION IS LOCATED IN THE NORTHEAST ANGLE OF A RAILROAD CROSSING AT NORTH MAIN STREET, SOUTH OF THE ENTRANCE TO THE CITY OF O'FALLON MUNICIPAL CENTRE. IT IS 46.5 FEET NORTH OF THE CENTER OF THE TRACKS; 2.4 FEET EAST OF A GUY POLE; 9.3 FEET EAST OF THE EAST EDGE OF SIDEWALK AND 5.7 FEET SOUTHEAST OF A PLASTIC BURIED CABLE MARKER AND PEDESTAL.

SITE BENCHMARK: ELEV. 492.90
 CHISELED CROSS ON CONCRETE CURB ALONG THE NORTH LINE OF MEXICO ROAD. SAID CROSS APPROXIMATELY 11.6' SOUTH OF SOUTHEAST CORNER OF SUBJECT PROPERTY.

CONSTRUCTION WORKING HOURS:

Construction work shall only be allowed during the following hours:

October 1 - May 31	Monday - Sunday
7:00 A.M. to 7:00 P.M.	
June 1 - September 30	Monday - Friday
6:00 A.M. to 8:00 P.M.	Saturday and Sunday
7:00 A.M. to 8:00 P.M.	

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



CALL BEFORE
 YOU DIG!
 1-800-DIG-RITE
 AND
 MoDOT
 (314) 340-4100

DEVELOPMENT NOTES

1. Area of Tract: 0.14 Acres (Glenmore Lane)
 Disturbed Area: 0.14 Acres
2. Site is served by:
 City of O'Fallon Sewer 636-281-2858
 AmerenUE Company 1-800-55-ASKUE
 Laclede Gas Company 636-946-8937
 Public Water District #2 636-281-2858
 Century Tel Telephone Company 636-332-7392
 O'Fallon Fire Department 636-272-3493
3. According to the Flood Insurance Rate Map of St. Charles County, Unincorporated Areas, (community panel number 290315 0237 E dated August 2, 1998), this property is within zone X. Zone X is defined as an area outside the 500 year flood plain.
4. No slope shall be steeper than 3:1 without city approval.
5. All handicap ramps, signs, symbols and striping to comply with A.D.A. Standards.
6. Differential Stormwater Runoff Calculations: (100 year storm)
 Pre-Developed: (0.78 ac @ 2.95) + (0.13 ac @ 6.08) = 3.09 cfs
 Post-Developed: (0.27 ac @ 2.95) + (0.64 ac @ 6.08) = 4.69 cfs
 The development of this site as proposed is increasing the runoff by 1.60 cfs. No detention is proposed for this site.
7. All signage is reviewed and approved under a separate permit.
8. All construction methods and practices to conform with OSHA Standards.
9. This site shall be compliance with Phase II Illicit Storm water discharge guidelines per Ordinance 5082.
10. All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
11. All sidewalks, curb ramps, ramp and accessible parking spaces shall be constructed in accordance with the current approved "Americans with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage.
12. The location and methods for all siltation control devices (silt fences and sedimentation basins) shall follow "St. Charles County Soil and Water Conservation District Erosion and Sediment Control" guidelines.
13. Contractor shall notify all adjacent property owners affected by construction 48 hours prior to beginning work.
14. All construction signage shall be per M.U.T.C.D. Manual, 2003 version.

DISCLAIMER OF RESPONSIBILITY
 I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey other than those authenticated by my seal.



Clifford L. Heitmann
 Civil Engineer
 029817
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 Authority No. 000655
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REVISIONS	
1/28/10	CITY COMMENTS
2/17/10	CITY COMMENTS

ENGINEERING PLANNING SURVEYING

221 Point West Blvd.
 St. Charles, MO 63301
 636-928-5562
 FAX 928-1718

CITY OF O'FALLON
 COMMUNITY DEVELOPMENT DEPARTMENT
 ACCEPTED FOR CONSTRUCTION
 BY: gjh DATE: 3-3-10
 PROFESSIONAL ENGINEER'S SEAL
 INDICATES RESPONSIBILITY FOR DESIGN

P&Z #0908.01 APPROVED 6/5/08