

SHEET INDEX

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A GRADING AND EROSION CONTROL PLAN FOR

DOGWOOD MEADOWS

A TRACT OF LAND BEING THE RESUBDIVISION OF LOT 5 OF LAKESIDE ESTATES & PART OF THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 47 NORTH, RANGE 3 EAST OF THE FIFTH PRINCIPAL MERIDIAN CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI

GRADING QUANTITY

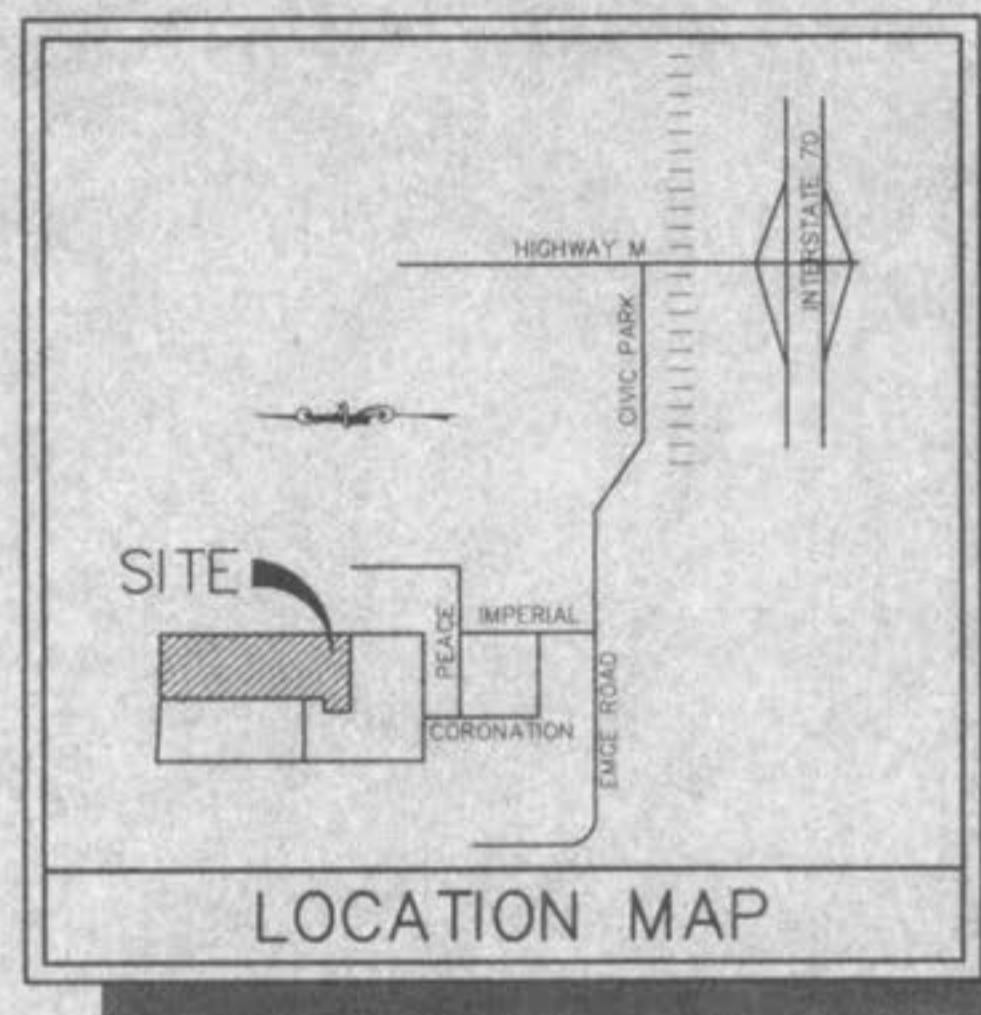
6,231 cu.yds.
(INCLUDES 15% SHRINKAGE)

The above yardage is an approximation only. NOT FOR BIDDING PURPOSES. Contractors shall verify quantities prior to construction.

It is the intention of the Engineer for the earthwork to balance on-site. The Engineer shall be notified if any difficulties arise in achieving the balance.

PRINCIPALS & STANDARDS

- 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 City Building Department. Permanent safety guards will be constructed in accordance with the appropriate section(s) of the adopted BOCA Codes.
- 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. Temporary siltation control measures shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
- Where natural vegetation is removed during grading, vegetation shall be re-established 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.
- 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.
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.
- 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 riprap or concrete or other suitable materials. Detention basins, diversions or any other appropriate structures shall be constructed to prevent velocities above 5 fps.
- 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.
- 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 trustee or in the case of a site plan by the property owner. Permanent vegetation should be left intact. Variances will include designed streambank erosion control measures, FEMA and U.S. Army Corps of Engineers guidelines shall be followed where applicable regarding site development areas designated as flood plains and wetlands.
- All lots shall be seeded and mulched 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.



DEVELOPMENT NOTES

- Area of Tract: 5.33 Acres
- Existing Zoning: R-1 Single Family Residential (City of O'Fallon)
- Proposed Zoning: R-1 Single Family Residential (City of O'Fallon)
- Proposed Use: Single Family Homes
- Number of Lots Proposed: 6 Lots
- Area in Lots: 4.67 Acres
- Minimum Lots Area: 10,000 Square Feet
- Average Lot Area: 33,919 Square Feet
- The proposed height and lot setbacks are as follows:
Minimum Front Yard: 25 feet
Minimum Side Yard: 6 feet
Minimum Rear Yard: 25 feet
Minimum Lot Area: 10,000 square feet
Maximum Height of Building: 2 1/2 stories or 35 feet
- Current Owner of Property: TIMOTHY AND KATHRYN BLATTEL
707 EMGE ROAD
O'FALLON, MISSOURI 63366
- Site is served by:
City of O'Fallon Sanitary Sewers
Union Electric Company
St. Charles Gas Company
City of O'Fallon Water District
GTE Telephone Company
Fort Zumwalt School District
O'Fallon Fire Protection District
- All homes shall have a minimum of 2 off-street parking places with 2-car
- All utilities must be located underground.
- The developer realizes that they will comply with current Tree Preservation Ordinance Number 1689 and provide landscaping as set forth in Article 23 of the City of O'Fallon Zoning Ordinances.
- The developer realizes that only 30% of the site may be covered by structures, garages.
- The existing lake shall serve as the detention basin for this project.
- No lots are anticipated to be susceptible to street movement.
- Minimum square feet for proposed houses by custom home builder:
2,000 square feet minimum one story
2,200 square feet minimum two story

LEGEND

- CA CURB INLET
- D.C.I. DOUBLE CURB INLET
- A.I. AREA INLET
- M.H. MANHOLE
- F.E. FLARED END SECTION
- E.P. END PIPE
- C.P. CONCRETE PIPE
- R.C.P. REINFORCED CONCRETE PIPE
- C.M.P. CORRUGATED METAL PIPE
- G.P. GAST HIGH PIPE
- P.V.C. POLY VINYL CHLORIDE (PLASTIC)
- C.O. CLEAN OUT
- Fire Hydrant
- Storm Sewer
- Sanitary Sewer
- Street Light
- Existing Contour
- Proposed Contour
- Street Sign
- Water Valve
- Blow Off Assembly
- Flowline Elevation of House Connection
- Flowline Elevation of Sewer Main
- Street Address

APPROVED For Grading

* Note: No trees are to be removed.

1/24/96 Colleen Kuamm

GENERAL NOTES

- 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.
- No area shall be cleared without the permission of the Project Engineer.
- All grades shall be within 0.2 feet of those shown on the grading plan.
- No slope shall be steeper than 3:1 or as called for in the soils report for the project. All slopes shall be sodded or seeded and mulched.
- All construction and materials used shall conform to current City of O'Fallon Standards.
- All soils test shall be verified by a Soils Engineer concurrent with the grading and backfilling operations.
- The access/wash off area should consist of a 6" - 8" layer of aggregate underlain with filter cloth. Water should be available at this location for vehicle wash off.
- Any wells and/or springs which may exist on this property shall be located and sealed in a manner acceptable to the City of O'Fallon. There are no visible wells.
- No flood plain exists on this site per F.I.R.M. #29183C0230 E dated August 2, 1996.

GRADING NOTES

- A Geotechnical Engineer shall be employed by the owner and be on site during grading operations. All soils tests shall be verified by the Geotechnical Engineer concurrent with the grading and backfilling operations.
- The grading contractor shall perform a complete grading and compaction operation as shown on the plans, stated in these notes, or reasonably implied there from, all in accordance with the plans and notes as interpreted by the Geotechnical Engineer.
- The Contractor shall notify the Soils Engineer at least two days in advance of the start of the grading operation.
- All areas shall be allowed to drain. All low points shall be provided with temporary ditches.
- A sediment control plan that includes monitored and maintained sediment control basins and/or straw bales should be implemented as soon as possible. No graded area is to be allowed to remain bare without being seeded and mulched. Care should be exercised to prevent soil from damaging adjacent property and silting up existing downstream storm drainage system.
- Debris and foundation material from any existing on-site building or structure which is scheduled to be razed for this development must be disposed of off-site.
- All trash and debris on site, either existing or from construction, must be removed and properly disposed of off-site.
- Soft soil in the bottom and banks of any existing or former pond sites or tributaries or on any sediment basins or traps should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed public right-of-way locations or on any storm sewer locations.
- Site preparation includes the clearance of all stumps, trees, bushes, shrubs, and weeds; the grubbing and removal of roots and other surface obstructions from the site; and the demolition and removal of any man-made structures. The material shall be properly disposed of off-site. Topsoil and grass in the fill areas shall be thoroughly disced prior to the placement of any fill. The Soils Engineer shall approve the discing operation.
- Compaction equipment shall consist of tamping rollers, pneumatic-tired rollers, vibratory roller, or high speed impact type drum rollers acceptable to the Soils Engineer. The roller shall be designed so as to avoid the creation of a layered fill without proper blending of successive fill layers.
- The Soils Engineer shall observe and test the placement of the fill to verify that specifications are met. A series of fill density tests will be determined on each lift of fill. Interim reports showing fill quality will be made to the Owner at regular intervals.
- The Soils Engineer shall notify the Contractor of rejection of a lift of fill or portion thereof. The Contractor shall rework the rejected portion of fill and obtain notification from the Soils Engineer of its acceptance prior to the placement of additional fill.
- All areas to receive fill shall be scarified to a depth of not less than 6 inches and then compacted in accordance with the specifications given below. Natural slopes steeper than 1 vertical to 5 horizontal to receive fill shall have horizontal benches, cut into the slopes before the placement of any fill. The width and height to be determined by the Soils Engineer. The fill shall be loosely placed in horizontal layers not exceeding 8 inches in thickness and compacted in accordance with the specifications given below. The Soils Engineer shall be responsible for determining the acceptability of soils placed. Any unacceptable soils placed shall be removed at the Contractor's expense.
- The sequence of operation in the fill areas will be fill, compact, verify acceptable soil density, and repetition of the sequence. The acceptable moisture contents during the filling operation are those at which satisfactory dry densities can be obtained. The acceptable moisture contents during the filling operation in the remaining areas are from 2 to 8 percent above the optimum moisture control.
- The surface of the fill shall be finished so that 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.
- Fill and backfill should be compacted to the criteria specified in the following table:

CATEGORY	MINIMUM PERCENT COMPACTION
Fill in building areas below footings	90%
Fill under slabs, walks, and pavement	90%
Fill other than building areas	86%
Natural subgrade	85%
Pavement subgrade	90%
Pavement base course	90%

Measured as a percent of the maximum dry density as determined by modified Proctor Test (ASTM-D-1557).

Moisture content must be within 2 percent below or 4 percent above optimum moisture content if fill is deeper than 10 feet.

PREPARED FOR:
TIMOTHY AND KATHRYN BLATTEL
707 EMGE ROAD
O'FALLON, MISSOURI 63366
(314) 240-6152

DISCLAIMER OF RESPONSIBILITY
I hereby certify that the documents herein are the work of my firm and that I am a duly licensed professional engineer in the State of Missouri. I am not responsible for any errors or omissions in this document or for any consequences resulting therefrom. My license number is E-29651.



REVISIONS

NO.	DATE	REVISIONS
10-11-96		CITY COMMENTS



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9-30-96
DATE
89-30941
PROJECT NUMBER
1 OF 2
SHEET OF
30941CON.DWG
FILE NAME
M.G.G. RLF
DRAWN CHECKED