

Drawing name: K:\0405064 FOX HAVEN ADDITION\Improvements\5084IMP.dwg Plotted on: Jan 06, 2006 - 11:05am Plotted by: wtraung

**GRADING & CONSTRUCTION NOTES:**

- All construction methods, materials and practices shall conform to all current applicable specifications of the governing agencies.
- Any destruction of existing improvements or features shall be repaired or replaced in kind by the contractor and shall remain the contractor's responsibility.
- Underground utilities have been plotted from available information and therefore their locations must 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 grading or construction of improvements.
- It shall be the contractor's responsibility to specifically mention any work which would normally be required to complete the project shall not relieve the contractor of his responsibility to perform such work.
- Contractor shall keep road clear of mud and debris.
- All filled areas to be compacted to a minimum of 90 percent of maximum dry density as determined by the Modified AASHTO Compaction Test, ASTM D1557-78, or as specified by the soils engineer.
- It shall be the grading contractor's responsibility to notify the soils engineer prior to work in progress and to comply with recommendations by the soils engineer with regards to compaction, surface preparation, and placement of fill.
- It shall be the grading contractor's responsibility to provide the location of any existing underground utilities by notifying utility companies prior to grading operations.
- The grading contractor shall cut or fill to subgrade elevation under all areas to be paved. (Subgrade is figured at pavement depth). Rough grading is to be completed within ± 0.20'.
- All drainage ditches shall be sodded or seeded and mulched to prevent erosion.
- All stumps, limbs, and other debris are to be removed from the site unless a suitable dump area is approved in advance by the owner after consulting with the soils engineer if burning is approved.
- Subgrade is included in the total bid package. (Subgrade is figured at pavement depth).
- Slopes to receive fill which are steeper than 5:1 should be benched prior to placement of fill.
- If fill is to be placed in areas of soft soil, particularly in draws, drainage channels and other low lying areas, the soft soil shall be excavated until firm soil is encountered.
- All grading shall comply with the soils engineer's recommendations.
- Permanent grass is required at completion of grading or a 30 day suspension of grading will be imposed.
- A drainage easement will be granted to the City of O'Fallon for any creeks to remain in the development on the record plot.
- Siltation control will be installed prior to any grading or construction operations and shall be inspected and maintained as necessary to insure their proper function until sufficient vegetation has been established to prevent erosion.
- The installation and maintenance of all siltation controls shall be the responsibility of the developer.
- No graded area shall remain bare for over 14 days without being seeded or mulched.
- Additional siltation control may be required as directed by the local governing authority.
- All grading areas shall be protected from erosion by erosion control devices and/or seeding and mulching as required by the City of O'Fallon.
- All fill placed under proposed storm and sanitary sewers, proposed roads, and/or paved areas shall be compacted to 90% of maximum 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 90% 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. Ensure 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.
- Erosion and sediment control structures shall be maintained throughout the construction process.
- The Developer shall provide the City of O'Fallon construction inspectors with soils reports prior to and during site soil testing.
- The contractor shall assume complete responsibility for controlling all siltation and erosion of the project area. The Contractor 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 grading and be maintained throughout the project until acceptance of the work by the Owner and/or the City of O'Fallon and/or MoDOT. The Contractor's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The Owner and/or the City of O'Fallon and/or MoDOT may at their option direct the Contractor in his methods as deemed fit to protect property and improvements. Any depositing of any silt or mud on new or existing pavement or in new or existing sewers or seales shall be removed after each rain and affected areas cleaned to the satisfaction of the Owner and/or the City of O'Fallon and/or MoDOT.
- All erosion control systems shall be inspected and necessary corrections made within 24 hours of any rainstorm resulting in one-half inch or more of rain or more.
- Erosion control 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, adjacent roadways, properties, ditches.
- No slope shall exceed 3(Horz.):1(Vert.).
- When deemed necessary, positive steps should be exercised to prevent the soil from damaging adjacent property and silt up all storm drainage systems whether on or off site.
- All low places whether on-site or off-site should be graded to allow drainage by installing temporary ditches.
- Any wells and/or springs which may exist on this property should be located and sealed in a manner acceptable to the City of O'Fallon.
- All trash and debris on-site, either existing or from construction, must be removed and disposed of off-site.
- 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 existing buildings and fencing is to be removed.
- Soft soils in the bottom and banks of any existing or former pond sites or tributaries 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 location. Dewatering of existing pond shall not exceed 50 GPM.
- Please notify the Director of Public Works for the City of O'Fallon 24 hours prior to the commencement of grading. No building permits will be issued by the City of O'Fallon until construction plans are approved and the final plot recorded.
- The sediment control plan should be implemented before grading begins. This should follow the guidelines in the model sediment and erosion control regulations by St. Charles Soil and Water Conservation District.
- The low sill elevation for any proposed structures adjacent to the flood plain shall be a minimum of 1(one) foot above the 100-year flood elevation.
- All grading adjustments shall be submitted to and receive approval from the City of O'Fallon.
- When utilized temporary siltation ponds/structures shall be completely removed following re-establishment of vegetation. Ponds shall be backfilled, compacted, and graded to provide positive drainage and then seeded and mulched.
- All paving to be accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
- Sidewalks, curb ramps, ramp and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAC) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAC guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer.
- All street signs and traffic signals shall be colored black in accordance with the approved MoDOT specifications.
- All sign posts, backs, and bracket arms shall be painted black using Carboline Rustbond Penetrating Sealer SG and Carboline 133 HB paint or equivalent as approved by the City and MoDOT.
- All sign locations and sizes must be approved separately through the Planning Division.
- All water mains, valves, fittings, hydrants, and related items shall be installed in accordance with the current St. Charles County PWS# 2 standards and specifications as approved by MDNR Review No. 61996-04.
- No brick or cast in place storm sewer structures will be allowed unless pipe is 48" or greater, then cast in place will be allowed on a case by case basis.

**ESTIMATED CONSTRUCTION SCHEDULE**

1. CLEARING AND GRUBBING:	PRESENT - OCTOBER 2005
2. ROUGH GRADING:	OCTOBER - DECEMBER 2005
3. CONSTRUCTION OF SEWERS, UTILITIES, ROADS:	DECEMBER, 2005 - APRIL 2006
4. FINAL GRADING:	MAY 2006
5. LANDSCAPING:	JUNE 2006

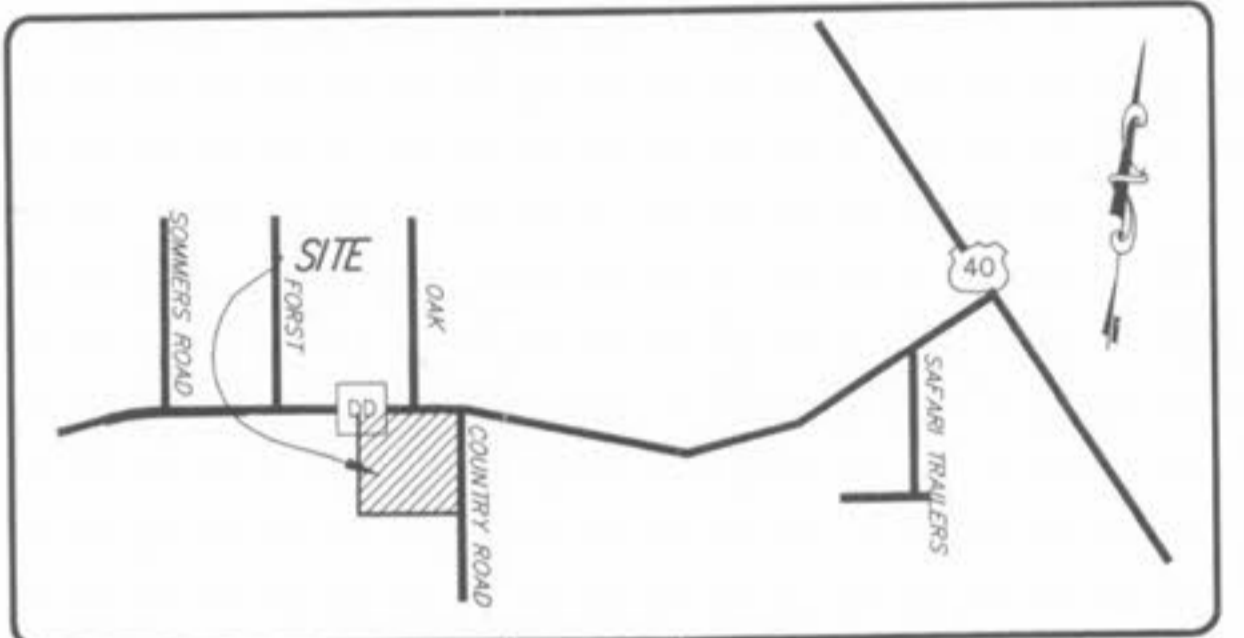
**PROJECT BENCHMARK**

RM 19 ELEV. 536.06	Chiseled square on wingwall at northeast corner of County Highway DD bridge over Dardenne Creek.
RM 38 ELEV. 538.75	Chiseled U on southwest corner of northwest wingwall of old bridge over Kraut Run about 4,500 feet downstream of County Highway DD.

# FOX HAVEN ADDITION

A tract of land being a part of U.S. Survey 1778,  
Township 46 North, Range 2 East,  
St. Charles County, Missouri

## IMPROVEMENT PLANS



LOCATION MAP  
N.T.S.

INDEX OF SHEETS

1	COVER SHEET
2	GRADING PLAN
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4-5	STREET PROFILES
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8-9	STORM SEWER PROFILES
10	DRAINAGE AREA MAP
11	HYDRAULIC CALCULATIONS
12	DETENTION BASIN SECTIONS & OUTFALL STRUCTURE DETAILS
13	WARPING DETAILS
14	WATER DISTRIBUTION PLAN
15	TRAFFIC CONTROL PLAN
LS	LANDSCAPE PLAN
WD1	WATER DETAILS
SC1	SILTATION CONTROL DETAILS
CD1-CD2	ST. CHARLES COUNTY DETAILS
CD3-CD6	MSD CONSTRUCTION DETAILS
CD7 - CD10	DCSD CONSTRUCTION DETAILS

EXISTING	LEGEND	PROPOSED
(542)	CONTOURS	(542)
(536)	SPOT ELEVATIONS	(536)
	CENTER LINE	
	BUILDINGS, ETC.	
	TREE LINE	
	FENCE	
	STORM SEWERS	
	SANITARY SEWERS	
	CATCH BASIN	
	AREA INLET	
	GRATED INLET	
	STORM MANHOLE	
	SANITARY MANHOLE	
	FLARED END SECTION	
	CLEANOUT	
	LATERAL CONNECTION	
	UTILITY OR POWER POLE	
	FIRE HYDRANT	
	TEST HOLE	
	PAVEMENT	
	GAS MAIN & SIZE	(2"Ø)
	WATER MAIN & SIZE	(6"Ø)
	TELEPHONE	(T)
	ELECTRIC (U) UNDERGROUND	(E)
	ELECTRIC (O) OVERHEAD	(OHW)
	FLOW LINE	(F)
	TO BE REMOVED	TBR
	TOP OF CURB	(TC)
	SWALE	
	LIGHT STANDARD	
	STREET SIGN	
	PARKING STALLS	P.S.
	YARD LIGHT	

2/14/06  
File Copy  
APPROVED  
ABK

- DUCKETT CREEK SANITARY DISTRICT CONSTRUCTION NOTES**
- Underground utilities have been plotted from available information and therefore their location 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 improvements.
  - Gas, water, and other underground utilities shall not conflict with the depth or horizontal location of existing or proposed sanitary and storm sewers, including house laterals.
  - All existing site improvements, disturbed, damaged, or destroyed shall be repaired or replaced to closely match preconstruction conditions.
  - All fill including places under proposed storm and sanitary sewer lines, and paved areas include trench backfills within and off the road right-of-way shall be compacted to 90 percent of maximum dry density as determined by the Modified AASHTO Compaction Test, ASTM D1557. All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations.
  - The contractor shall prevent all storm, surface water, mud, and construction debris from entering the existing sanitary sewer system.
  - All sanitary sewer flowlines and tops built without elevations furnished by the engineer will be the responsibility of the sewer contractor.
  - Easements shall be provided for all sanitary sewers, storm sewers, and all utilities on the record plot.
  - All construction and materials shall conform to the current construction standards of Duckett Creek Sanitary District.
  - The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for coordination and inspection.
  - All sanitary sewer building connections shall be designed so that the minimum vertical distance from the low point of the basement to flowline of the sanitary sewer at the corresponding building connection shall not be less than the diameter of the pipe plus the vertical distance of 2-1/2 feet.
  - All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri Dept. of Natural Resources specification 10 CSR-8.120(7)(E).
  - All PVC sanitary sewer pipe is to be SDR-35 or equal with "clean" 1/2 inch to 1 inch granular stone bedding uniformly graded. This bedding shall extend from 4 inches below the pipe to springline of pipe. Immediate backfill over pipe shall consist of some size "clean" or "minus" stone from springline of pipe to 6 inches above the top of pipe.
  - All sanitary and storm sewer trench backfills shall be water jetted. Granular backfills will be used under pavement areas.
  - All pipes shall have positive drainage through manholes. No flat invert structures are allowed.
  - All creek crossings shall be lined with rip-rap as directed by District inspectors.
  - Brick shall not be used on sanitary sewer manholes.
  - Existing sanitary sewer service shall not be interrupted.
  - Maintain access to existing residential driveways and streets.
  - Pre-manufactured adapters shall be used at all PVC to DIP connections. Rubber Boot/Mission Type couplings will not be used.
  - Any permits, licenses, easements, or approvals required to work on public properties or roadways are the responsibility of the developer.
  - Type "N" Lock-Type Cover and Locking Device (Lock-Lugs) shall be used where lock-type covers are required.

**LEGAL DESCRIPTION**

A TRACT OF LAND BEING THE SAME TRACT OF LAND AS DESCRIBED IN A DEED TO DOUBLE DUDE L.L.C. RECORDED IN DEED BOOK 2471 PAGE 480 OF THE ST. CHARLES COUNTY RECORDS AND BEING SITUATED IN U.S. SURVEY 1778, TOWNSHIP 46 NORTH, RANGE 2 EAST ST. CHARLES COUNTY MISSOURI BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST NORTHEAST CORNER OF A TRACT OF LAND DESCRIBED AS PARCEL ONE IN A DEED TO DOUBLE DUDE L.L.C. AS RECORDED IN DEED BOOK 2471 PAGE 480 OF THE ST. CHARLES COUNTY RECORDS; THENCE WITH THE WEST LINE OF COUNTRY (30'W) ROAD, SOUTH 07°40'38" EAST A DISTANCE OF 883.22 FEET TO A POINT ON THE NORTH LINE OF STEGMANN FARMS XV, LLC AS RECORDED IN DEED BOOK 3492 PAGE 125 OF SAID RECORDS; THENCE WITH SAID NORTH LINE, SOUTH 82°04'12" WEST A DISTANCE OF 854.27 FEET TO THE SOUTHWEST CORNER OF HOME NURSERY INC. PER DEED BOOK 2488 PAGE 737; THENCE WITH THE EAST LINE OF SAID HOME NURSERY INC., NORTH 07°46'40" WEST A DISTANCE OF 887.70 FEET TO THE NORTHEAST CORNER OF SAID HOME NURSERY INC.; SAID NORTHEAST CORNER BEING ON THE SOUTH RIGHT OF WAY OF STATE HIGHWAY DISTANCES: NORTH 82°13'02" EAST 763.25 FEET TO A POINT OF CURVATURE, THENCE ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 1870.07 FEET AN ARC DISTANCE OF 92.61 FEET TO THE POINT OF BEGINNING CONTAINING 17.4 ACRES MORE OR LESS AS CALCULATED FROM AVAILABLE RECORD INFORMATION

- GENERAL NOTES:**
- This site is in the following Districts:  
Public Water District No. 2  
Wentzville Fire Protection District  
Wentzville School District
  - This site is in the following Utility Service Areas:  
Duckett Creek Sewer District  
AT&T Broadband  
Quire River Electric Company  
St. Charles County Gas Company  
CenturyTel
  - Sanitary sewer connections shall be approved by Duckett Creek Sewer District and the City of O'Fallon.
  - Storm Water Management shall be designed pursuant to the requirements of City of O'Fallon and shall discharge at an adequate natural discharge point.
  - Grading shall be per City of O'Fallon standards.
  - Street trees, landscaping and street lights shall be per City of O'Fallon standards.
  - The underground utilities shown herein were plotted from available information and do not necessarily reflect the actual existence, nonexistence, size, type, number, or location of these or other utilities. The general contractor shall be responsible for verifying the actual location, grading, excavation, or construction of improvements. The provisions shall in no way, oblige any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMo.
  - The Source of topographic information is USGS Datum.
  - All proposed utilities and sewers shall be covered by easements granted to the appropriate utility companies and municipalities.
  - This project is in compliance with Article 26 of the City of O'Fallon's Zoning Code.
  - This plot is not for record.
  - Proposed light standards shall be 16' tall max.
  - No known wetlands are on the subject property.
  - All future uses on subject property will conform with Article XIII of the Zoning Code.
  - All necessary utilities (public or private) will be available, functioning and useable prior to the issuance of any building permits.
  - Any septic tanks or leach fields to be removed per St. Charles County requirements.
  - If detention basin structure and pipes are being used as a sediment basin, installation of detention structure and pipes are at the developer's own risk.
  - Site Information: Area of development - 17.4 acres, 48 Proposed Lots.
  - Lot Information: min. width at building line - 80', side yard - 6', front yard - 25', rear yard - 25'
  - Driveway Locations shall not interfere with the sidewalk accessible ramps.
  - All utilities shall be located underground.
  - City approval of the construction site plans does not mean single family and two family dwelling units can be constructed on the lots without meeting the building setbacks, as required by the zoning code.
  - All lots within the subdivision shall only be accessed via a public right-of-way. Access to lots may not be permitted via private easements or drives. Lots 8-10 & 40-48 shall not have direct access to Highway DD and Country Roads.
  - A 5/8" trash bar shall be provided in all inlets.
  - All proposed fencing requires a separate permit through the Planning Department.
  - Maximum lot coverage shall not exceed 30%.

**FLOOD PLAIN NOTE:**  
According to the Flood Insurance Rate Map of the County of St. Charles, Missouri, Unincorporated Areas (Community Panel Number 29183C0410 E Dated August 2, 1996. This property lies entirely outside of the 100 Year Flood Plain.

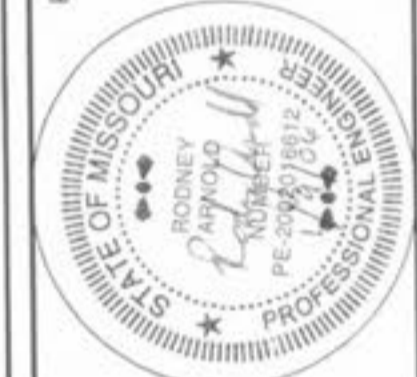
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PER FRM MAP # 29183C0410 E

**TREE ORDINANCE**  
Existing trees = 2.94 acres  
Trees removed = 2.94 acres  
Replacement trees required = 0.59 ac. x 15 trees/ac. = 8.9 trees  
Replacement trees provided = 40 trees  
Street trees required = 1 tree per frontage

ISSUE/REMARKS/DATE

1	REV PER DUCKETT CREEK SANITARY DISTRICT 9-28-05
2	REV PER CITY AND WATER DISTRICT COMMENTS 9-28-05
3	REV PER DUCKETT CREEK SANITARY DISTRICT 10-17-05
4	REV PER DUCKETT CREEK SANITARY DISTRICT 10-24-05
5	REV PER PUBLIC WATER DISTRICT NO. 2 11-14-05
6	REV PER CITY OF O'FALLON 12-02-05
7	REV PER CITY OF O'FALLON 19-2-2006

PREPARED FOR:  
**McBride & Son Homes  
Land Development, Inc.**  
#1 McBride & Son Center Drive  
Chesterfield, MO. 63005  
636.537.2000



PREPARED BY:  
**THE STERLING CO.**  
**STERLING**  
ENGINEERS & SURVEYORS  
5065 HENRIE BLVD., MISSOURI SPRING, MO 65706  
(314) 487-0140 FAX 487-9944  
E-Mail: Sterling@sterling-eng-survey.com

DRAWN: DESIGNED: CHECKED:  
**FOX HAVEN ADDITION**  
RECEIVED  
FEB 13 2006  
SHEET TITLE: COVER SHEET  
SHEET NO. 04 OF 15

NO.	04	05	084
M.S.D.			SHEET
PI			1
DIGITAL FILE LOCATION			OF
SURFACE/UNDERGROUND			15

RECEIVED  
FEB - 3 2006  
BUILDING DEPT.