

ST. CHARLES COUNTY STANDARD NOTES

GENERAL 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 to remain shall be repaired or replaced to 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 distinctly understood that failure to mention specifically 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 signs shall meet MUTCD requirements and specifications, when applicable.
- This site is in the following districts:
DUCKETT CREEK SANITARY DISTRICT
WENTZVILLE FIRE PROTECTION DISTRICT
WENTZVILLE SCHOOL DISTRICT
PUBLIC WATER DISTRICT NO. 2
CUIVER RIVER ELECTRIC COOPERATIVE
LACLEUE GAS COMPANY
CENTURYTEL INC.
- All water mains, valves, fittings, hydrants, and related items are to be installed in accordance with the current St. Charles County P.W.S.D. #2 guidelines and specifications as approved by M.D.N.R. Review No. 61995-04R.

GRADING/SEDIMENT & EROSION CONTROL NOTES

By acceptance of the grading permit to be issued for this development, the Developer/Owner shall assume full responsibility for the performance of the grading operations and ensure that all off-site properties and County roads will be protected.

There shall be no clearing, grading, construction, or disturbance of the vegetated buffer except as permitted by section 405.5026 of the unified development ordinance of St. Charles County, Missouri.

Sediment and erosion control shall not be limited to the measures shown on the plans. The contractor, with the approval of the County inspector, shall utilize best management practices to prevent sediment from entering adjacent properties, roadways, storm sewers, and drainage ways.

All filled places under proposed storm and sanitary sewer lines and/or paved areas including trench backfills within and off the road right-of-way shall be compacted to 90 percent of maximum density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557). All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations.

All filled places in proposed and existing St. Charles County roads (highways) shall be compacted from the bottom of the fill up to 90 percent maximum density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557). Paved areas in cuts shall meet the same compaction requirements. All tests shall be verified by a Soils Engineer concurrent with grading operations.

Any wells and/or springs which may exist on this property shall be located and sealed in a manner acceptable to the St. Charles County Highway Department and the Building Code Enforcement Division of the Community Development Department.

All trash and debris on-site, either existing or from construction, must be removed and properly 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 properly disposed of off-site.

Soft soils in the bottom and banks of any existing or former pond sites or tributaries or 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 location.

Please notify the Chief Inspector of the St. Charles County Highway Department 24 hours prior to the commencement of grading and/or prior to the commencement of construction.

All excavations, grading, or filling shall have a finished grade not to exceed a 3:1 slope (33%).

Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.

Upon completion of storm sewers, siltation control shall be provided around all open sewer inlets and shall remain until the disturbed drainage areas have been properly stabilized.

There shall be no clearing, grading, construction, or disturbance of vegetation except as permitted by Section 405.5026 of the Unified Development Ordinance of St. Charles County, Missouri.

Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion.

When mechanized land clearing activities are completed or suspended for more than 30 days, either temporary vegetation must be established or temporary siltation control measures must be put in place with the review and approval of the Director of the Division of Development Review.

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 recommendation of the Director of the Division of Development Review.

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.

All lots shall be seeded and mulched at the minimum rates defined in Appendix "A" in Chapter 410, Article VI of the Unified Development Ordinance or approved before an occupancy permit shall be issued except that a temporary occupancy permit may be issued by the Building Code Enforcement Division of the Community Development Department in cases of undue hardship because of unfavorable ground conditions.

A pre-construction conference must be scheduled with the Director of Development Review prior to the start of each construction phase of land disturbance activity. The permittee will be responsible for notifying all contractors, utility crews, and other entities that will perform work at the site to be in attendance.

Please notify the Erosion Control Inspector of the Community Development Department a minimum of 48 hours prior to the commencement of clearing, grading, and/or prior to the commencement of construction to arrange for an inspection of the site.

Prior to the City of O'Fallon, for street connection purposes only, ensure the moisture content of the soil in fill areas is to correspond to the corrective effort as defined by the 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 commencement of fill. Proof rolling may be required to verify soil stability at the discretion of the City of O'Fallon.

SEWER CONSTRUCTION NOTES:

- All storm and sanitary sewer construction methods to conform to latest standards and specifications of the applicable codes and shall conform to all appropriate Duckett Creek Sanitary District and St. Charles County standards.
- After all sewers and appurtenances are completed, inspected and accepted, the contractor will be permitted to connect the sewer extension into the existing system, in the presence of an Inspector.
- RCP drainage pipe shall be reinforced concrete class III (ASTM C76) minimum except as noted on plans.
- Trenches under existing pavement and under areas to be paved shall be backfilled with 3/4" minus crushed limestone and compacted to 90% of the maximum dry density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557).
- In all areas where sewer and appurtenances are to be constructed in filled ground, the fill will be placed to approximate finish grade and compacted to 90% of maximum dry density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557), prior to the excavating and installing of pipe.
- All manhole and inlet tops built without elevations furnished by the Engineer will be the responsibility of the Sewer Contractor. At the time of construction stakeout of the sewer lines, all curb and grate inlets will be face staked, provided said stakes do not fall in the ditch line. If stakes fall within the ditch line the sewer company or job superintendent shall notify the Engineer that stakes are needed and allow 48 hours for cuts. Tops of manholes, inlets, valve boxes, etc., shall conform to finished grade.
- All standard street curb inlets to have front of inlet two and one half feet (2.5) behind rolled curb and two feet (2') behind vertical curb. All area inlets are opened 4 sides except as noted on plan.
- It is the contractor's responsibility to confirm the location of existing utilities and/or underground facilities by notifying utility companies prior to construction.
- All construction methods and materials used shall conform to current applicable standards.
- Shop drawings are required for construction of nonstandard reinforced concrete structures.
- If the storm and sanitary sewers are parallel and in the same trench or over dig, the upper pipe shall be placed on a shelf and the lower pipe shall be bedded in compacted granular fill to the flow line of the upper pipe.
- All creek crossings shall be grouted rip-rap as directed by District Inspectors. (All grout shall be high slump ready-mix concrete)
- Concrete pipe joints shall be MSD type "A" approved compression-type joints and shall conform to the requirements and specifications for joints for Circular Concrete Sewer and Culvert Pipes, using Flowline, Watertight, Rubber-type Gaskets ASTM C443. Band type gaskets depending entirely on cement for adhesion and resistance to displacement during jointing shall not be used.
- All storm sewer pipes shall be reinforced concrete pipe, Class III minimum. Any concrete pipe, conduit or culvert beneath a street right-of-way or with reasonable probability of being so located shall be a minimum of Class III, but shall also account for all vertical loads. In no case shall the design provide for less than HS-20 loading per AASHTO. For other locations, the minimum design live load shall be HS-10 loading.

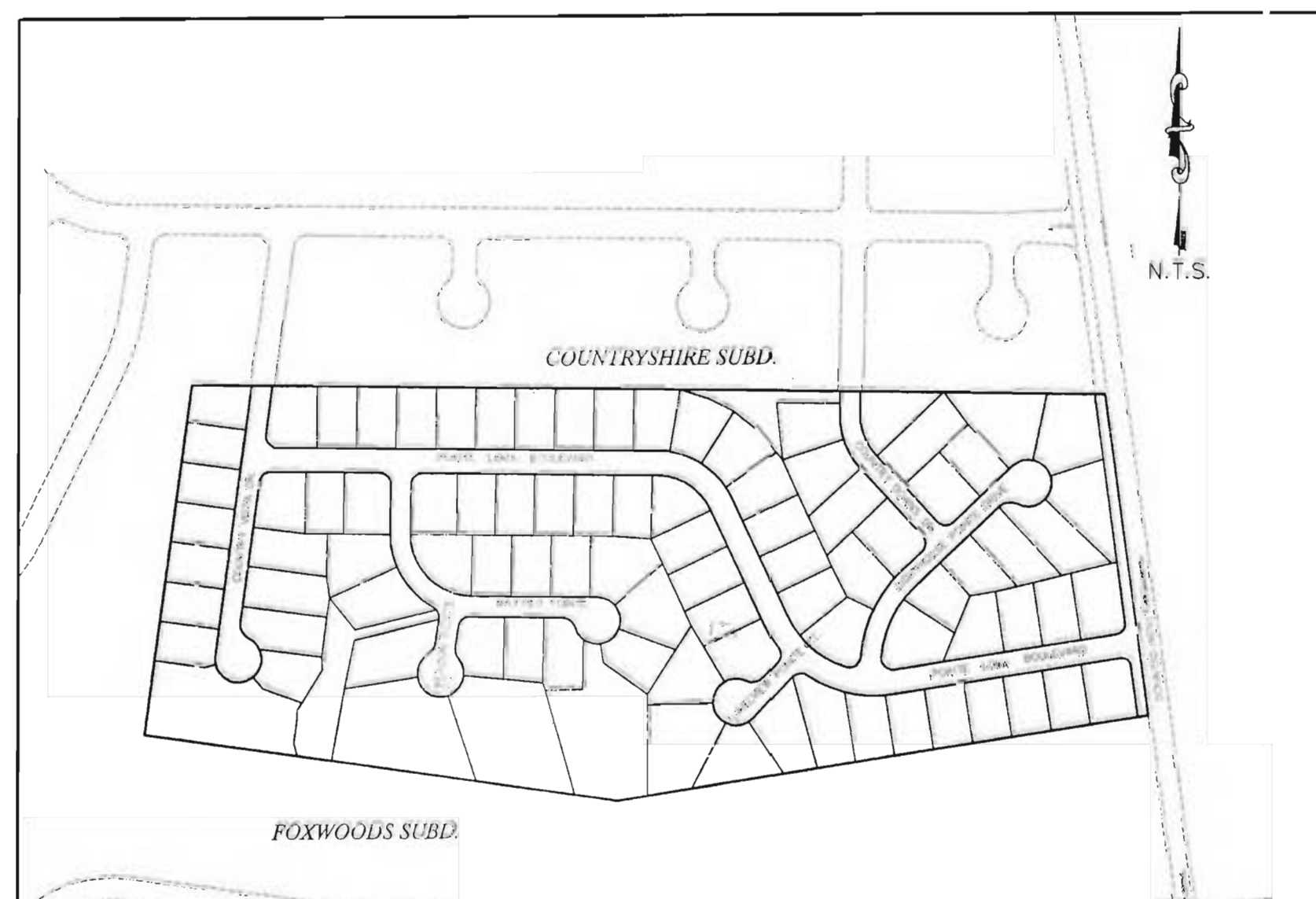
DUCKETT CREEK SANITARY DISTRICT CONSTRUCTION NOTES:

- Underground utilities have been plotted from available information and therefore 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 including trench backfills within and off the road right-of-way shall be compacted to 90 percent of maximum density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557). All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations. The compacted fill shall be free of rutting and shall be non-yielding and non-pumping during proofrolling and compaction.
- 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.
- It is the responsibility of the contractor to adjust all sanitary sewer manholes (that are affected by the development) to finish grade.
- Easements shall be provided for all sanitary sewers, storm sewers and all utilities on the record plat.
- All sanitary sewer construction materials shall conform to the current construction standards of the Duckett Creek Sanitary District.
- The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for coordination of inspection.
- All sanitary sewer building connections shall be designed so that the minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding building connection shall not be less than the diameter of the pipe plus the vertical distance of 24 feet.
- All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri Department of Natural Resources specification 10 CSR-6120(7)(E).
- All PVC sanitary sewer pipe shall conform to the requirements of ASTM D-3034 Standard Specification for PSM Polyvinyl Chloride Sewer Pipe, SDR-35 or equal, with "clean" 1 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 same 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 backfill will be used under pavement areas.
- All pipes shall have positive drainage through manholes. Flat invert structures are not 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 allowed.
- Any permits, licenses, easements, or approvals required to work on public or private properties or roadways are the responsibility of the developer.
- "Type N" Lock-Type Cover and Locking Device (Lock-Lug) shall be used where lock-type covers are required.

THE ENCLAVE AT SOMMERS POINTE

A TRACT OF LAND BEING A PART OF SECTION 10 AND 15, TOWNSHIP 46 NORTH, RANGE 2 EAST, ST. CHARLES COUNTY, MISSOURI

IMPROVEMENT PLANS



ZIP CODE 63367

INDEX OF SHEETS

- 1.1 - COVER SHEET
- 2.1-2.2 - GRADING SHEET
- 3.1-3.2 - SITE PLAN
- 4.1-4.2 - STREET PROFILES
- 5.1-5.3 - SANITARY PROFILES
- 6.1-6.3 - STORM PROFILES
- 7.1-7.2 - DRAINAGE AREA
- 8.1 - HYDRAULICS/BASIN SECTIONS
- 9.1 - OUTFALL STRUCTURE
- 10.1 - TEMPORARY ENTRANCE/WARPINGS
- 11.1-11.2 - WATER DISTRIBUTION PLAN
- 12.1 - PUMPSTATION PLAN
- 13.1 - FORCEMAIN PLAN & PROFILE
- 14.1-14.3 - PUMPSTATION DETAILS
- 15.1 - TREE PRESERVATION
- CD1-CD13 - CONSTRUCTION DETAILS

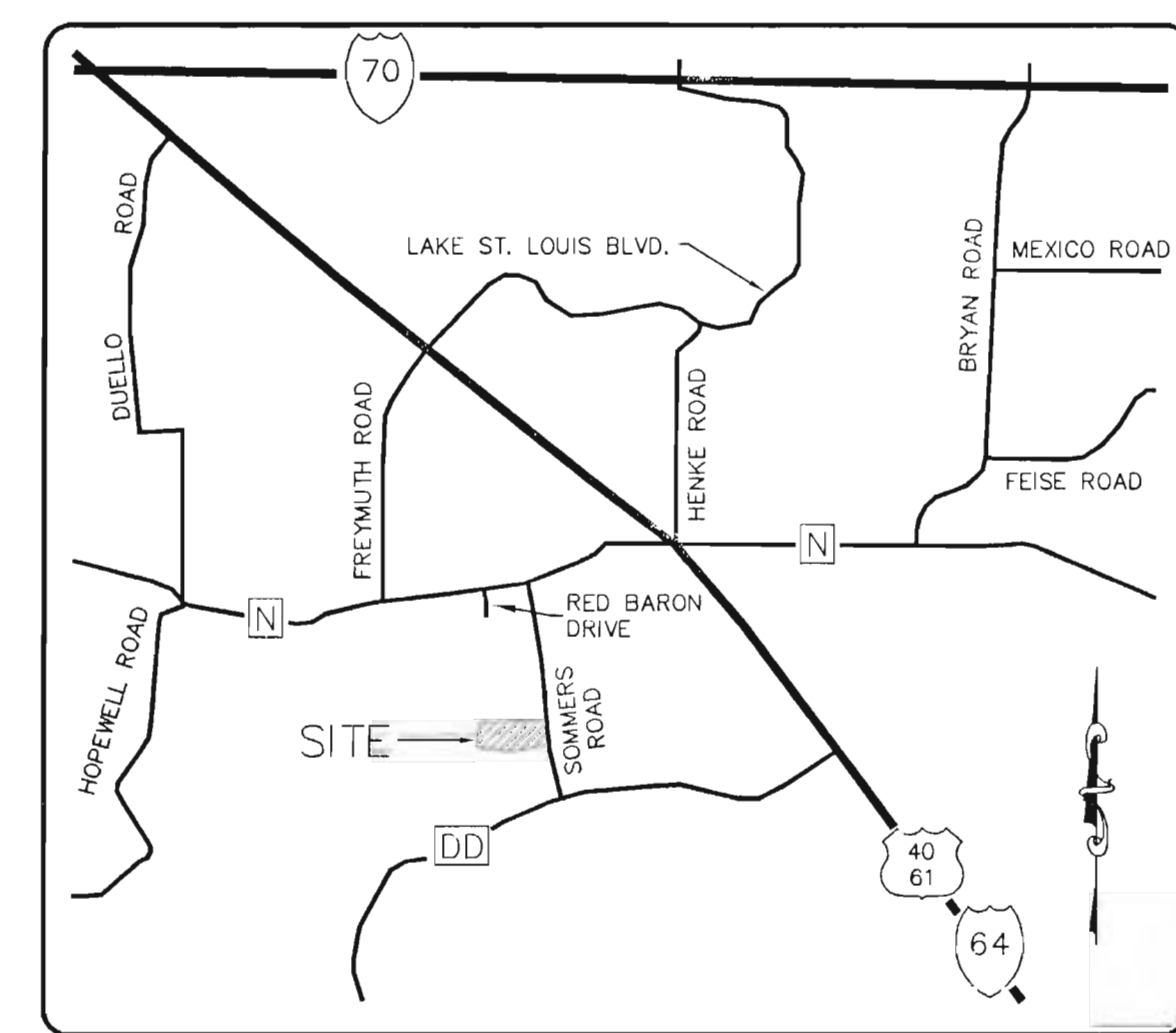
TREE PROTECTION NOTES

The protection area around trees shall include all land within the canopy drip line. This area shall remain free of all grading and filling activities.

Construction site activities such as parking, material storage, soil stock piling, and concrete wash-out shall not be permitted within tree protection areas.

Tree protection areas shall be clearly identified prior to any land disturbance. Methods that may be used include snow fence, polyethylene, chain link fence, or construction stakes. Designated areas shall remain clearly marked until the protected area has been inspected.

Signs shall be used to designate tree protection areas. Signs are to be posted widely on all sides of the preservation area. Minimum size for the signs is 24" x 36" and should state the following: "TREE PROTECTION AREA - Machinery Access and Dumping or Storage of Materials and Equipment Prohibited."



LOCATION MAP N.T.S.

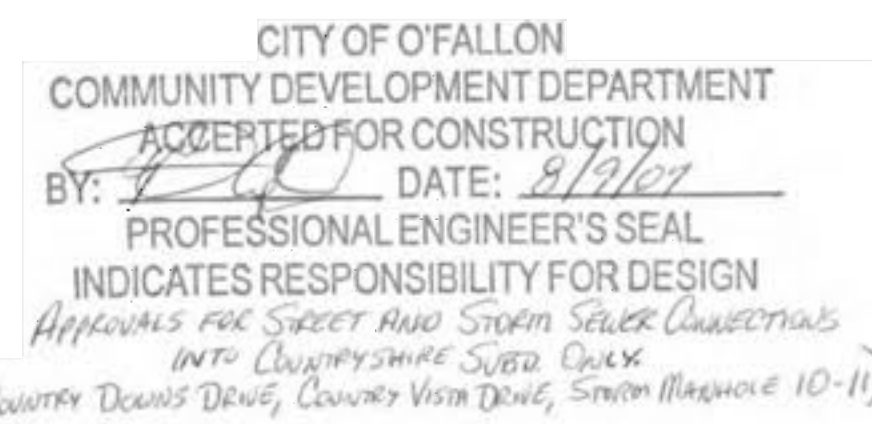
EXISTING	LEGEND	PROPOSED
(Symbol)	CONTOURS	(Symbol)
(Symbol)	SPOT ELEVATIONS	(Symbol)
(Symbol)	CENTER LINE	(Symbol)
(Symbol)	BUILDINGS, ETC.	(Symbol)
(Symbol)	TREE LINE	(Symbol)
(Symbol)	FENCE	(Symbol)
(Symbol)	STORM SEWERS	(Symbol)
(Symbol)	SANITARY SEWERS	(Symbol)
(Symbol)	CATCH BASIN	(Symbol)
(Symbol)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

TREE PRESERVATION REQUIREMENTS

10% of Site or 25% of Exist. Trees.
Area of Site = 14.22 AC.
10% of Site = 1.42 AC.
Area of Exist. Trees = 1.14 AC.
25% of Exist. Trees = 0.28 AC.
Area of Trees to Remain and be Protected = 0.28 AC.

BENCHMARK:

PROJECT: "SO" CUT WEST END OF SOUTHERN HEADWALL LOCATED AT THE SOUTHEAST INTERSECTION OF SOMMERS ROAD AND STATE HIGHWAY "N". 36.5' EAST OF SOMMERS ROAD AND 14' SOUTH OF CENTERLINE OF STATE HIGHWAY "N".
ELEVATION = 607.22



PROPERTY DESCRIPTION:

A TRACT OF LAND BEING A PART OF SECTION 10 AND 15, TOWNSHIP 46 NORTH, RANGE 2 EAST, ST. CHARLES COUNTY, MISSOURI, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT A STONE FOUND ON THE EAST LINE OF U.S. SURVEY 931 AND BEING ALSO THE SOUTHWEST CORNER OF A TRACT OF LAND DESCRIBED IN A DEED TO OMB RHODES, LLC RECORDED IN DEED 4195 PAGES 1315-1374 OF THE ST. CHARLES COUNTY RECORDS; THENCE, WITH THE EAST LINE OF SAID U.S. SURVEY AND THE EAST LINE OF SAID OMB RHODES, LLC TRACT, NORTH 07°41'28" EAST 720.71 FEET TO THE SOUTHWEST CORNER OF A TRACT OF LAND DESCRIBED IN A DEED TO OMB RHODES, LLC RECORDED IN DEED 4080 PAGES 1686 OF THE ST. CHARLES COUNTY RECORDS AND FROM WHICH POINT A FOUND STONE BEARS NORTH 89°06'31" WEST 0.08 FEET AND A STONE FOUND FOR THE NORTH-EAST CORNER OF U.S. SURVEY 931 BEARS NORTH 07°41'28" EAST 2678.05 FEET; THENCE, DEPARTING SAID U.S. SURVEY LINE AND WITH THE SOUTH LINE OF SAID OMB RHODES, LLC TRACT, SOUTH 89°06'31" EAST 1912.22 FEET TO A POINT ON THE WEST LINE OF U.S. SURVEY 1778, SAID POINT ALSO BEING THE CENTERLINE OF SOMMERS (40' WIDE) ROAD; THENCE WITH THE WEST LINE OF U.S. SURVEY 1778, SOUTH 07°49'36" EAST 658.75 FEET TO A POINT; THENCE DEPARTING THE CENTERLINE OF SOMMERS ROAD AND THE WEST LINE OF U.S. SURVEY 1778, WITH THE NORTH LINE OF A TRACT OF LAND DESCRIBED IN A DEED TO LEO & JAYNE ROCKINGSTON RECORDED IN DEED BOOK 1768 PAGE 585 OF THE ST. CHARLES COUNTY RECORDS, SOUTH 81°09'58" WEST 1129.39 FEET TO AN IRON PIPE FOUND FOR THE NORTHEAST CORNER OF LOT 1 OF FOX WOOD ESTATES AS PER THE PLAT THEREOF RECORDED IN PLAT BOOK 19 PAGE 175 OF THE ST. CHARLES COUNTY RECORDS; THENCE WITH THE NORTH LINE OF FOX WOOD ESTATES, NORTH 81°47'51" WEST 992.31 FEET TO THE POINT OF BEGINNING AND BEING THE SAME TRACT OF LAND AS DESCRIBED IN A DEED TO THE HENRY KERN, TRUSTEE AS RECORDED IN DEED BOOK 1394 PAGE 1372 AND CONTAINING 1,534,479 SQUARE FEET (35,226 ACRES), AS CALCULATED TO THE CENTERLINE OF SAID SOMMERS ROAD AND 1,521,270 SQUARE FEET (34,9235 ACRES), AS CALCULATED TO THE WEST LINE OF SAID 40 FOOT WIDE ROADWAY.



CALL BEFORE YOU DIG!
1-800-DIG-RITE

ISSUE REMARKS DATE

1	10-17-06	FIRST SUBMITTAL
2	12-14-06	REVISED PER DESD & PMSD #2 COMMENTS
3	12-28-06	REVISED PER ST. CHARLES CO. COMMENTS
4	01-25-07	REV. PER ST. CHARLES CO. & OFFALLON
5	02-08-07	REVISED PER DESD & PMSD #2 COMMENTS
6	06-28-07	REVISED PER DEVELOPER COMMENTS
7	07-30-07	REV. PER ST. CH. CO. DESD & PMSD #2 COMMENTS

PREPARED FOR:
CROSS DEVELOPMENT OF MISSOURI INC.
1609 PROSPECT VILLAGE DR.
LAKE ST. LOUIS, MO 63367
314-713-4054



THE **STERLING & SURVEYORS** CO.
ENGINEERS & SURVEYORS
5605 NEW BAUMGARTNER ROAD
ST. LOUIS, MISSOURI 63119
(636) 261-1100
E-Mail: Sterling@stkr-engineers-survey.com

PROJECT: THE ENCLAVE AT SOMMERS POINTE
DRAWN: [Name]
DESIGNED: [Name]
CHECKED: [Name]
SHEET TITLE: COVER SHEET - IMPROVEMENTS

NO.	07	06	123
M.S.D.	SHEET		
P#	1.1		
	OF		