

City of O'Fallon

General Notes

- Gas, water and other underground utilities shall not conflict with the depth or horizontal locations of existing and proposed sanitary and storm sewers, including house laterals.
- 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.
- Polyvinyl Chloride (PVC) shall conform to the requirements of ASTM D-3034 Standard Specifications for the PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings, SDR-35.
- Storm sewers 18" in diameter or smaller shall be ASTM C-14.
- Storm sewers 21" in diameter or larger shall be ASTM C-76, Class II.
- All storm sewer pipe under pavement, regardless of size, shall be reinforced concrete pipe (ASTM C-76, Class III) unless noted otherwise on the plans.
- Corrugated metal pipe shall conform to the standard specifications for corrugated culvert pipe M-36, A.A.S.H.O. See plans for gauge.
- All filled places under buildings, proposed sanitary and storm sewer lines, and/or paved areas including trench backfills shall be compacted to 90% of maximum density as determined by the "Modified A.A.S.H.O. T-180 Compaction Test" (ASTM D-1557) unless otherwise specified by the local governing authority specifications. All tests will be verified by a Soils Engineer.
- All earthen filled places within State, County, or City roads (Highways) shall be compacted to 95% of maximum density as determined by the "Standard Proctor Test A.A.S.H.O. T-99" (ASTM D-698) unless otherwise specified by local governing authority specifications. All tests will be verified by a Soils Engineer.
- All storm and sanitary trench backfills shall be water settled. Granular fill will be used under paved areas.
- Easements shall be provided for storm sewers, sanitary sewers, and all utilities on the record plat. See record plat for location and size of easements. This does not apply to house laterals.
- No area shall be cleared without the permission of the developer.
- All grade shall be within 0.2 feet (more or less) of those shown on the grading plan.
- No slope shall be greater than 3:1 and shall be either sodded or seeded and mulched.
- Hazard markers will consist of three (3) standard specification, "Manual or Uniform Traffic Control Devices", end of roadway markers mounted on two (2) pound "U" channel sign post. Each marker shall consist of an eighteen (18) inch diameter reflectorized red panel. The bottom of each panel shall be mounted a minimum of four (4) feet above the elevation of the pavement surface.
- All manhole and curb inlet tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor. At the time of construction stake-out of the sewer lines, all curb and grate inlets will be face staked. If normal face stakes fall in line with sewer construction, the Engineer will set these stakes on a double offset. It shall be the responsibility of the sewer contractor to reserve all face stakes from destruction.
- All standard street curb inlets to have front of inlet 2 feet behind curb.
- The minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding house connection shall not be less than the diameter of the sanitary sewer plus a vertical distance of not less than 2-1/2 feet.
- Water lines, valves, sleeves, meters and etc. shall meet all specifications and installation requirements of the local governing authority.
- All cast iron pipe for water mains shall conform to A.W.W.A. specification C-106 and/or C-108. The cast iron fittings shall conform to A.W.W.A. specification C-110. All rubber gasket joints for water cast iron pressure pipe and fittings shall conform to A.W.W.A. specification C-111.
- All water hydrants and valves shall be cast iron and installed in accordance with plans and details.
- All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
- All PVC water pipe shall have a minimum pressure rating of P9-200 or SDR-21.
- All PVC sanitary sewer pipe shall be DR-35 or equal with crushed stone bedding uniformly graded between 1" and 1/4" size. This bedding shall extend from 6" below the pipe to 12" above the top of the pipe.
- All grading on Missouri State Highway Right-of-Way shall be seeded and mulched and all disturbed Right-of-Way markers shall be reset at the completion of grading.
- All streets must meet the specifications and installation requirements of the City of O'Fallon.
- All sanitary manhole tops shall be set 0.2' higher than the proposed ground except in pavement areas.
- All sanitary manholes shall have a 31 mil thick coat of coal tar pitch waterproofing.
- All sanitary service lines shall have a 6" diameter for Multi-family and a 4" diameter for Single-family developments.
- Manhole frame and cover shall be Clay and Bailey No. 2068 for Neenah B-1736 or Dexter 1315 or approved equal.
- A drop of 0.2 feet is required through each sanitary manhole.
- The City of O'Fallon shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspection.
- Brick shall not be used on manholes.
- Sewer contractor shall maintain 24" vertical separation between all storm sewers and the sludge force main. Contractor shall be responsible for verifying separation prior to storm sewer installation.
- This tract is served by:

- CUivre RIVER ELECTRIC
- ST. CHARLES GAS COMPANY
- CONTINENTAL TELEPHONE
- ST. CHARLES CO. WATER DIST. #2
- DUCKETT CREEK SEWER DIST.
- O'FALLON FIRE PROT. DIST.
- FORT ZUMWALT R-2 SCHOOL DIST.

See All sanitary sewer manholes shall be waterproofed on the exterior, in accordance w/ Mo. Dept. of Natural Resources Specifications. 10 C.S.R. 8.120 (7)(E).

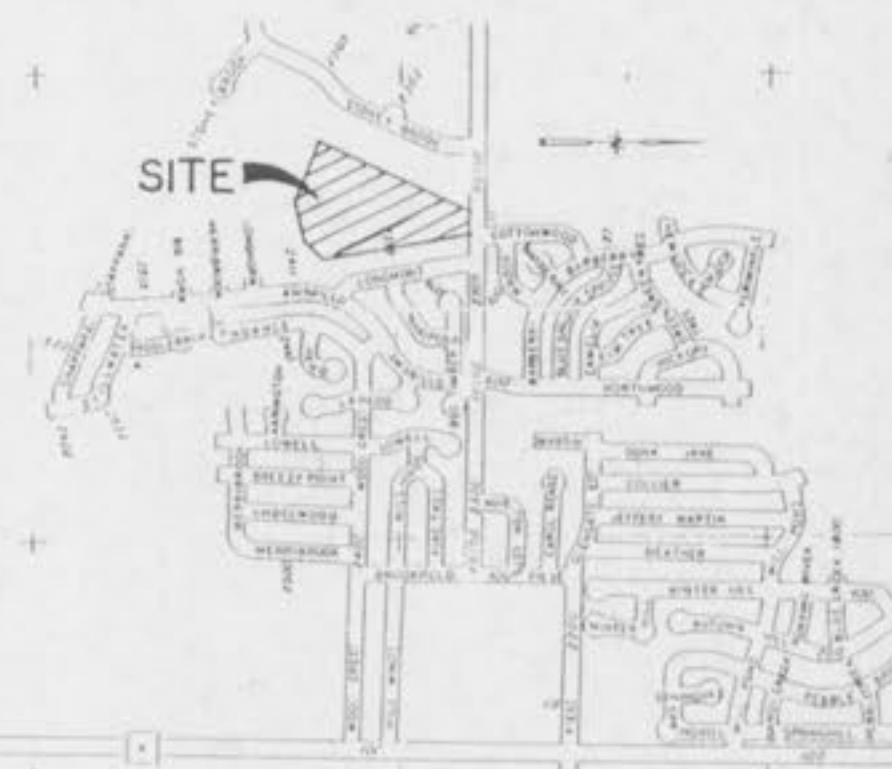
MALLARD POINTE

MALLARD POINTE
PROPERTY DESCRIPTION
21.860 ACRE TRACT

A tract of land being part of U.S. Survey 1771, and Fractional Section 3, Township 46 North, Range 3 East, St. Charles County, Missouri and being more particularly described as follows:

BEGINNING at a point marking the intersection of the North line of U.S. Survey 1771 at an angle point in the East line of Stoney Brook (Subdivision) as recorded in Plat Book 20 Page 181 of the St. Charles County, Missouri records; thence leaving the North line of said U.S. Survey 1771 along the East line of said Stoney Brook, North 24°22'26" East, a distance of 1307.56 feet to a point in the center line of Feise Road (40' wide); thence along said centerline South 89°37'24" East, a distance of 49.44 feet to an angle point in said centerline; thence continuing along said centerline South 89°07'24" East, a distance of 150.56 feet to a point; thence leaving said centerline along the West line of Bayfield Plat Two (Subdivision) as recorded in Plat Book 23 Page 91 of the said St. Charles County, Missouri records and its extension, South 09°18'45" East, a distance of 1531.59 feet to a point; thence along the northern line of the Bayfield/Amarillo Village Future Development the following courses; South 50°56'39" West, a distance of 126.88 feet to a point; thence North 15°18'42" West, a distance of 207.68 feet to a point; thence North 57°10'59" West, a distance of 781.77 feet to a point on the East line of the aforementioned Stoney Brook (Subdivision); thence along said East line North 23°09'18" East, a distance of 92.21 feet back to the POINT OF BEGINNING and containing 952,243 square feet or 21.860 acres more or less according to a boundary survey by Pickett, Ray & Silver, Inc., during the month of April 1990.

Location Map



GENERAL NOTES

- A Geotechnical Engineer shall be employed by the owner and be on site during grading operations.
- The grading contractor shall perform a complete grading and compaction operation as shown on the plans, stated in these notes, or reasonably implied therefrom, 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 will be allowed to drain. All low points should 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 over the winter without being seeded and mulched. Care should be exercised to prevent soil from discharging adjacent property and slipping up existing downstream storm drainage systems.
- 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, or buried on site.
- Any existing trash and debris currently on this property must be removed and disposed of off-site, or buried on site.
- Soft soils in the bottom and banks of any existing or former pond site 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 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 unsuitable 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 to at least 95 percent of the maximum density as determined by the Modified AASHTO T-1809 Compaction Test (ASTM-D-1557). Natural slopes steeper than 1 vertical to 3 horizontal, to receive fill shall have horizontal benches, with minimum widths of 10 feet and maximum height of 4 feet, cut into the slopes before the placement of any fill. The fill shall be loosely placed in horizontal layers not exceeding 6 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 places 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 pavements | 90% |
| Fill other than building areas | 88% |
| Natural subgrade | 88% |
| Pavement subgrade | 90% |
| Pavement and close-slab base course | 94-90% |

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.

NOTE: Trash & Debris shall be disposed of in the detention basin area, & other designated areas, as shown on E/I. Also, all debris shall be buried a minimum of 3' below finished grade.

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Benchmark

DC-1, "Δ" CUT AT WEST END, TOP OF CONCRETE CURB AT ENTRANCE TO BAYFIELD SUBD., ON FEISE ROAD. ELEVATION: 615.05

Legend

| | | | |
|--|---------------------------------|--------|--------------------------|
| | Sanitary Sewer (Proposed) | C.I. | Curb Inlet |
| | Sanitary Sewer (Existing) | D.C.I. | Double Curb Inlet |
| | Storm Sewer (Proposed) | G.I. | Gate Inlet |
| | Storm Sewer (Existing) | A.I. | Area Inlet |
| | Water Line & Size | D.A.I. | Double Area Inlet |
| | Tee & Valve | C.C. | Concrete Collar |
| | Hydrant | F.E. | Flared End Section |
| | Cap | E.P. | End Pipe |
| | Lot or Building Number | E.D. | Energy Dissipator |
| | Existing Fence Line | M.H. | Manhole |
| | Existing Tree Line | C.P. | Concrete Pipe |
| | Street Sign | R.C.P. | Reinforced Concrete Pipe |
| | Direction of Proposed Residence | C.M.P. | Corrugated Metal Pipe |
| | Existing Contour | C.I.P. | Cast Iron Pipe |
| | Proposed Contour | P.V.C. | Polyvinyl Chloride |
| | Grouted Rip-Rap | V.C.P. | Vitrified Clay Pipe |
| | End of Lateral | C.O. | Clean Out |
| | Asphalt Pavement | V.T. | Vent Trap |
| | Concrete Pavement | | |
| | Storm/Sanitary Structure | | |
| | Test Hole | | |
| | Power Pole | | |
| | Light Standard | | |

ENGINEERS AUTHENTICATION

The responsibility for professional engineering liability on this project is hereby limited to the set of plans authorized by the seal, signature and date hereinafter attached. Responsibility is disclaimed for all other engineering plans involved in the project and specifically excludes revisions after this date unless reauthorized.

PICKETT, RAY & SILVER, INC.
 Signature: _____ Date: _____

PICKETT RAY & SILVER

Civil Engineers, Planners and Surveyors

PREPARED FOR:
 OWEN B. SONS DEVELOPMENT
 235 JUNGERMANN ROAD
 SUITE 207
 ST. PETERS, MO. 63376 (314)928-6936

DRAWN: D.P.T.D. DATE: 10/2/90
 CHECKED: _____ DATE: _____
 FIELD BOOK: 477 PROJECT: 90-040
 JOB ORDER: 18362