

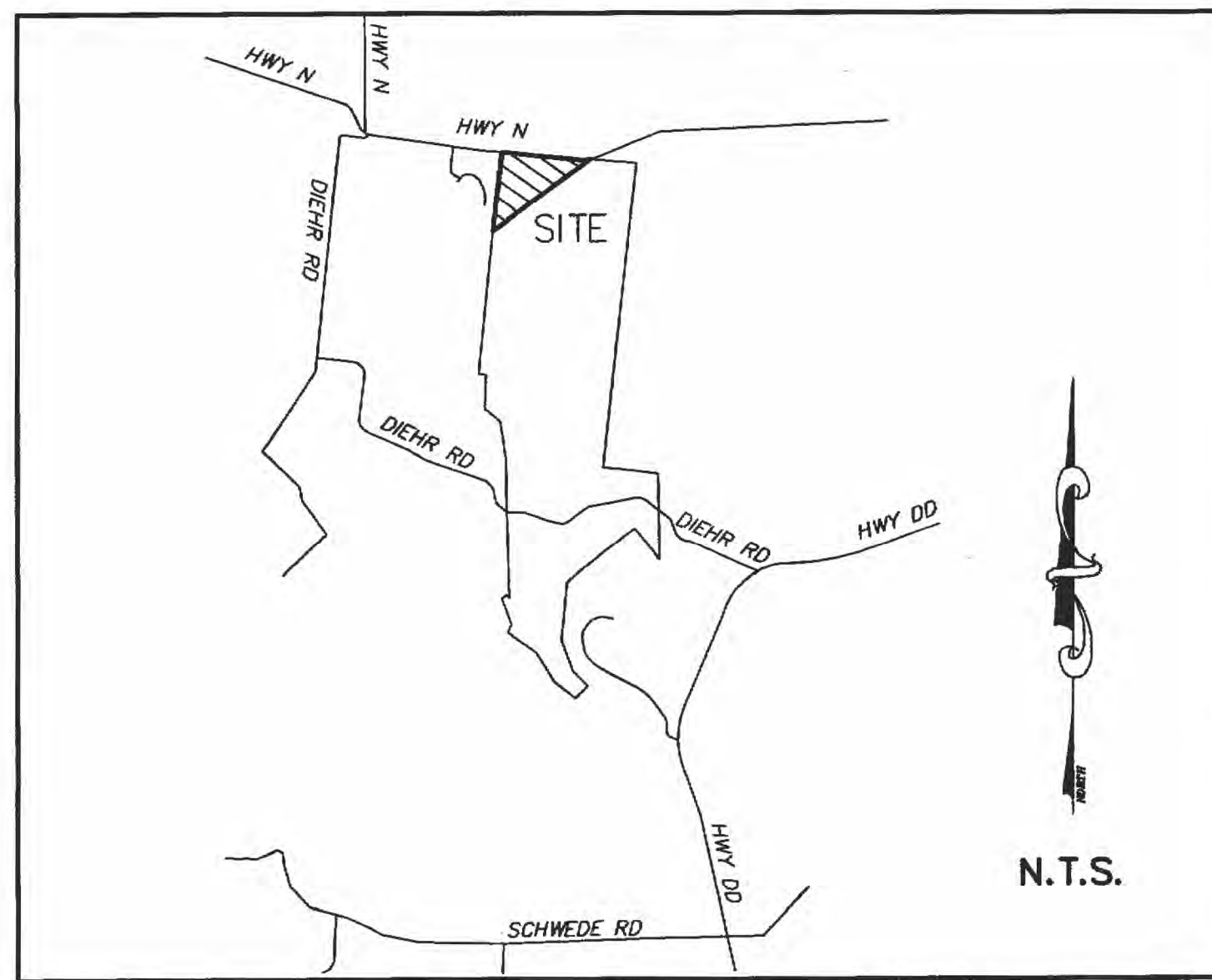
BRIGHT START DAY CARE CENTER

TRACTS OF LAND BEING PART OF FRACTIONAL SECTIONS 16 & 17, AND U.S. SURVEYS 61 & 417, TOWNSHIP 46 NORTH, RANGE 2 EAST, ST. CHARLES COUNTY, MISSOURI

IMPROVEMENT PLANS

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 in the plans.
- Corrugated metal pipe shall conform to the standard specifications for corrugated culvert pipe M-36, A.A.S.H.T.O. See plans for gauge.
- All filled places under proposed roads, 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 AASHTO T-180 Compaction Test" or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. All filled places 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.
- 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.T.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 jettied. 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 grades shall be within 0.2 feet (more or less) of those shown on the grading plan.
- No slope shall be steeper than 3' (horizontal) to 1' (vertical) sodded or seeded and mulched.
- Hazard markers will consist of three (3) standard specification, "Manual on 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 diamond 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 preserve 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 not less than two and one-half feet (2-1/2').
- Water lines, valves, sleeves, meters and etc., shall meet all specifications and installation requirements of the local governing authority. Water mains shall have a minimum of 42" of cover.
- 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 PR-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 re-set at the completion of grading.
- All streets must meet the specifications and installation requirements of the City of O'Fallon.
- All sanitary manholes top 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.
- Manhole frame and cover shall be Clay and Bailey No. 2008 or Neenah R-1736 or Deeter 1315 or approved equal.
- A drop of 0.2 feet is required through each sanitary manhole. Minimum cover of 42" is required on all sanitary sewer mains.
- 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 in the construction of sanitary or storm sewer structures.
- 5/8" diameter trash bars shall be provided for all inlets.
- Waterproofing: Waterproofing will be required on the exterior of all manholes. The bitumen shall consist of two coats of asphalt, coat-tar pitch, or a coating meeting American Society for Testing and Materials (ASTM) D-443. Coal-tar pitch shall conform to the requirements of ASTM D-450. Coating shall be 31 mils thickness.
- All concrete pipe shall be installed with "O-Ring" Rubber type gaskets per M.S.D. standard construction specifications or manufacturer.
- 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 silts or mud on new or existing pavement or in new or existing storm sewers or swales 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.
- Developer must supply City construction inspectors with soils reports prior to or during site soil testing.
- All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
- Owner shall provide a copy of the soils report to grading contractor. Contractor shall be responsible for adhering to all recommendations outlined in the soils report.
- Project is Served By:
 - Public Water Supply District #2
 - St. Charles Gas Company
 - CenturyTel Telephone Company
 - Duckett Creek Sewer District
 - Cuivre River Electric
 - Wentzville Fire Protection District
- HDPE pipe is to be N-12WT and shall meet ASTM F1417 water tight field test.
- Traffic control shall be per MODOT or MUTCD whichever is most stringent.
- All new utilities under City streets shall be bored.
- 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:
 - Maximum dry density
 - Optimum moisture content
 - Maximum and minimum allowable moisture content
 - 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-1157) 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.
 - Curve must have at least 5 density points with moisture content and sample locations listed on document.
 - Specific gravity
 - Natural Moisture content
 - Liquid limit
 - 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.



LOCATION MAP

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 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 D1557)". 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 preloading 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.
- Easements shall be provided for all sanitary sewers, storm sewers and all utilities on the record plat.
- All sanitary sewer construction and 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 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-812(2)(3).
- 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" 1/2 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 jettied. Granular backfill will be used under pavement areas.
- All pipes shall have positive drainage through manholes. No flat invert structures are allowed.
- All creek crossings shall have grouted rip-rap as directed by district inspectors. (all grout shall be high slump ready-mix concrete).
- 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 connection. 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.



MODOT UNDERGROUND LOCATE (314) 340-4100

DRAWING INDEX

Sheet	Description
1	COVER SHEET
2	SITE PLAN
3	GRADING PLAN
4	DRAINAGE AREA MAP
5	SEWER PROFILES/ CONSTRUCTION DETAILS
6	CONSTRUCTION DETAILS
7	WATER DETAILS

LEGEND

	Sanitary Sewer (Proposed)		
	Sanitary Sewer (Existing)		
	Storm Sewer (Proposed)		
	Storm Sewer (Existing)		
	Water Line & Size		
	Existing water line		
	Tee & Valve		
	Hydrant		
	Cap		
	18 Lot or Building Number		
	Existing Fence Line		
	Existing Tree Line		
	Street Sign		
	Existing Contour		
	Proposed Contour		
	Grouted Rip-Rap		
	End of Lateral		
	Asphalt Pavement		
	Concrete Pavement		
	Sanitary Structure	R.C.P.	Reinforced Concrete Pipe
	Storm Structure	C.M.P.	Corrugated Metal Pipe
	Test Hole	C.I.P.	Cast Iron Pipe
	Power Pole	P.V.C.	Polyvinyl Chloride
	Light Standard	V.C.P.	Vitrified Clay Pipe
	Double Water Meter Setting		
	Single Water Meter Setting	C.O.	Clean Out
	Curb Inlet	V.T.	Vent Trap
	Skewed Curb Inlet	T.B.R.	To Be Removed
	Double Curb Inlet	T.B.R.&R	To Be Removed & Relocated
	Grate Inlet	T.B.P.	To Be Protected
	Area Inlet	T.B.A.	To Be Abandoned
	Double Area Inlet	B.C.	Base Of Curb
	Concrete Collar	T.C.	Top Of Curb
	Flared End Section	T.W.	Top Of Wall
	End Pipe	B.W.	Base Of Wall
	Energy Dissipator	(TYP)	Typical
	Manhole	U.N.O.	Unless Noted Otherwise
	Concrete Pipe	U.I.P.	Use in Place

PROJECT BENCH MARK

U.S.G.S BENCH MARK
At Dardenne T.46N., R.2E. Near Approx. Corner Sections 1, 2, 11 & 12, 31' north & 20' west of crossroads, 49' south of S.E. corner of Catholic Church, 2.0' north of sidewalk & in a concrete post standard tablet stamped "TT" 60C 1936 616'.
Elev. 616.50

4-3-06
APPROVED

NOTE: TOPOGRAPHIC AND EXISTING UTILITY INFORMATION OBTAINED FROM PLANS FOR THE WYNDGATE SUBDIVISION PREPARED BY PICKETT, RAY AND SILVER, INC. ACTUAL EXISTING GRADES HAVE NOT BEEN FIELD VERIFIED AND MAY DIFFER FROM THOSE SHOWN. EXISTING UTILITY LOCATIONS ARE TO BE CONSIDERED APPROXIMATE. EXISTING UTILITIES AND TOPO SHALL BE FILED VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.

PICKETT RAY & SILVER

Civil Engineers
Planners
Land Surveyors

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St. Peters, MO 63376
397-1211 FAX 397-1104

FILE #3203.05

PICKETT RAY & SILVER

CIVIL ENGINEERS
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BRIGHT START
IMPROVEMENT PLANS

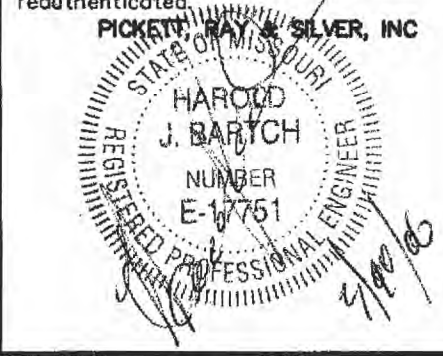
ST. CHARLES, MO

Prepared For:
SUMMIT POINTE, L.L.C.

239 FOX HILL ROAD
ST. CHARLES, MO 63301
(636) 940-9300

REVISONS	NO.	DATE	PER CITY OF O'FALLON & PICKETT CR	REMOVED PER M.S.D. COMMENTS
	1	01-08-06		
	2	1-16-06		
	3	02-21-06		
	4	03-10-06		

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



DRAWN	B.PARKS	DATE	12-05-05
CHECKED	D.BYRD	DATE	12-05-05
PROJECT #	01267.BRST.00C		
TASK #	2	FIELD BOOK	X

BRIGHT START
IMPROVEMENT PLANS
COVER SHEET

SHEET 1 OF 7
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