

# PIEPER ROAD IMPROVEMENTS

## A TRACT OF LAND BEING PART OF U.S. SURVEY 1790 T.47N., R.3E. SAINT CHARLES, MISSOURI

APPROVED

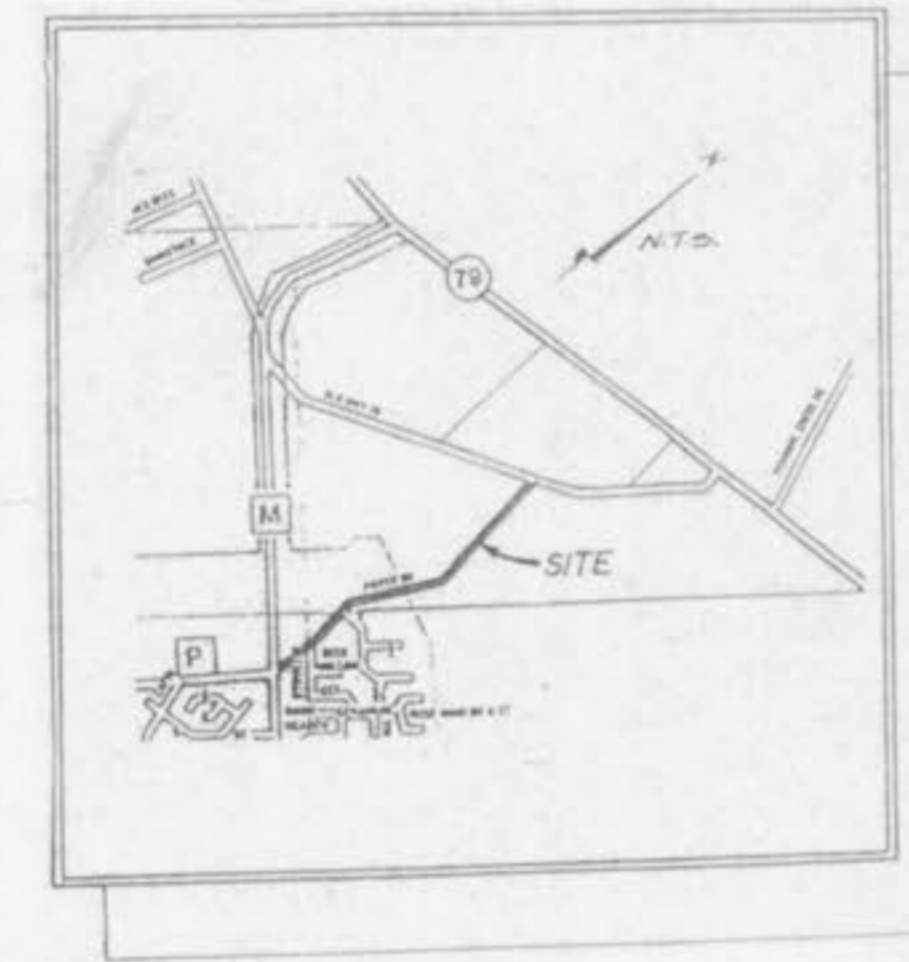
8/21/96

*John King*

### CITY OF O'FALLON GENERAL NOTES

1. 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.
2. 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.
3. 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.
5. 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.
6. ~~Reinforced metal pipe shall conform to the standard specifications for reinforced metal pipe as shown on A.C.P.C. See plans for gauges.~~
7. 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.
8. 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.
9. All storm and sanitary trench backfills shall be water jetted. Granular fill will be used under paved areas.
10. Easements shall be provided for storm sewers, sanitary sewers, and all utilities on the record plot. See record plot for location and size of easements. This does not apply to house laterals.
11. No area shall be cleared without the permission of the developer.
12. All grades shall be within 0.2 feet (more or less) of those shown on the grading plan.
13. No slope shall be greater than 3:1 and shall be either sodded or seeded and mulched.
14. Hazard markers will consist of three (3) standard specification, "Manual on Uniform Traffic Control Devices," and of roadway markers mounted on two (2) pound "J" 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.
15. 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.
16. All standard street curb inlets to have front of inlet 2 feet behind curb.
17. The minimum vertical distance from the low point of the basement to the flowing 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').
18. Water lines, valves, sleeves, meters and etc., shall meet all specifications and installation requirements of the local governing authority.
19. 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.
20. All water hydrants and valves shall be cast iron and installed in accordance with plans and details.
21. All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
22. All PVC water pipe shall have a minimum pressure rating of PR-200 or SDR-21.
23. 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.
24. 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.
25. All streets must meet the specifications and installation requirements of the City of O'Fallon.
26. All sanitary manholes top shall be set 0.2' higher than the proposed ground except in pavement areas.
27. All sanitary manholes shall have a 31 mil thick coat of coal tar pitch waterproofing.
28. All sanitary service lines shall have a 6" diameter for Multi-family and a 4" diameter for single-family developments.
29. Manhole frame and cover shall be City and Bailey No. 3089 or Neenah R-1736 or Deeter 1315 or approved equal.
30. A drop of 0.2 feet is required through each sanitary manhole.
31. The City of O'Fallon shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspection.
32. Brick shall not be used on manholes.
33. 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.
34. Waterproofing: Waterproofing will be required on the exterior of all manholes. The bitumen shall consist of two coats of asphalt, coal-tar pitch, or a coating meeting American Society for Testing and Materials (ASTM) D-41. Asphalt shall conform to the requirements of ASTM D-449. Coal-tar pitch shall conform to the requirements of ASTM D-450. Coating shall be 31 mils thickness.
35. NOTE: The grading and elevations shown on the grading plans are for construction purposes only. Finished grades and slopes will vary from those shown on the plans depending upon the location, size and type of house built on the lot. However, care should be taken to insure that finished grading conforms to drainage area maps.
36. This site is served by:  
FIRE - O'Fallon Fire District  
SCHOOL - Fort Zumwalt School District  
TELEPHONE - GTE  
GAS - St. Charles Gas Co.  
ELECTRIC - Union Electric Co.  
WATER - City of O'Fallon  
SANITARY SEWERS - City of O'Fallon

### LOCATION MAP



### DRAWING INDEX

Sheet	Description
1	COVER SHEET
2	TYPICAL SECTIONS AND DETAILS
3	DETAILS
4-6	PLAN AND PROFILES
7-9	RIGHT-OF-WAY PLANS
10	STORM SEWER PROFILES
11	INTERSECTION DETAILS
12-13	STRIPING DETAILS
14-16	CONSTRUCTION DETAILS
17	EROSION CONTROL MEASURES
18	CONSTRUCTION AND DETOUR SIGNING
19-25	DETOUR
26-35	CROSS SECTIONS

### LEGEND

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

### SITE BENCHMARK

RM 70 (U.S.G.S.) ELEVATION = 505.026  
STANDARD DISK STAMPED "H 149 1935" SET IN TOP  
OF WEST END OF THE BASE OF SOUTH PIER OF  
NORFOLK SOUTHERN RAILWAY OVER STATE HIGHWAY 79.

### DESIGN CRITERIA

CAPACITY:  
2,400 PASSENGER CARS PER HOUR TWO-WAY VOLUME  
40 MPH  
6% MAXIMUM  
2% MINIMUM  
325' SSD

### REVISIONS

Revised per City of O'Fallon 8-20-96 RM

# PICKETT RAY & SILVER

Civil Engineers  
Planners  
Land Surveyors

333 Mid Rivers Mall Dr.  
St. Peters, MO 63376  
397-1211 FAX 397-1104

### ENGINEERS AUTHENTICATION

The responsibility for professional engineering liability on this project is hereby limited to the set of plans submitted herewith and, signature and date hereunder attached. Responsibility is disclaimed for all other engineering plans included in the project and specifically includes retaining after this date unless reauthorized.

PICKETT, RAY & SILVER, INC.



### DEVELOPER

WHITTAKER CONSTRUCTION CO., INC.  
355A MID RIVERS MALL DRIVE  
ST. PETERS, MO. 63376  
(314) 970-1511

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DRAWN	R.D.M.	DATE	7-1-1996	1
CHECKED		DATE		
FIELD BOOK	609	PROJECT #	95-067	35
		JOB ORDER #	34367	