

WINGHAVEN WATER PLANS

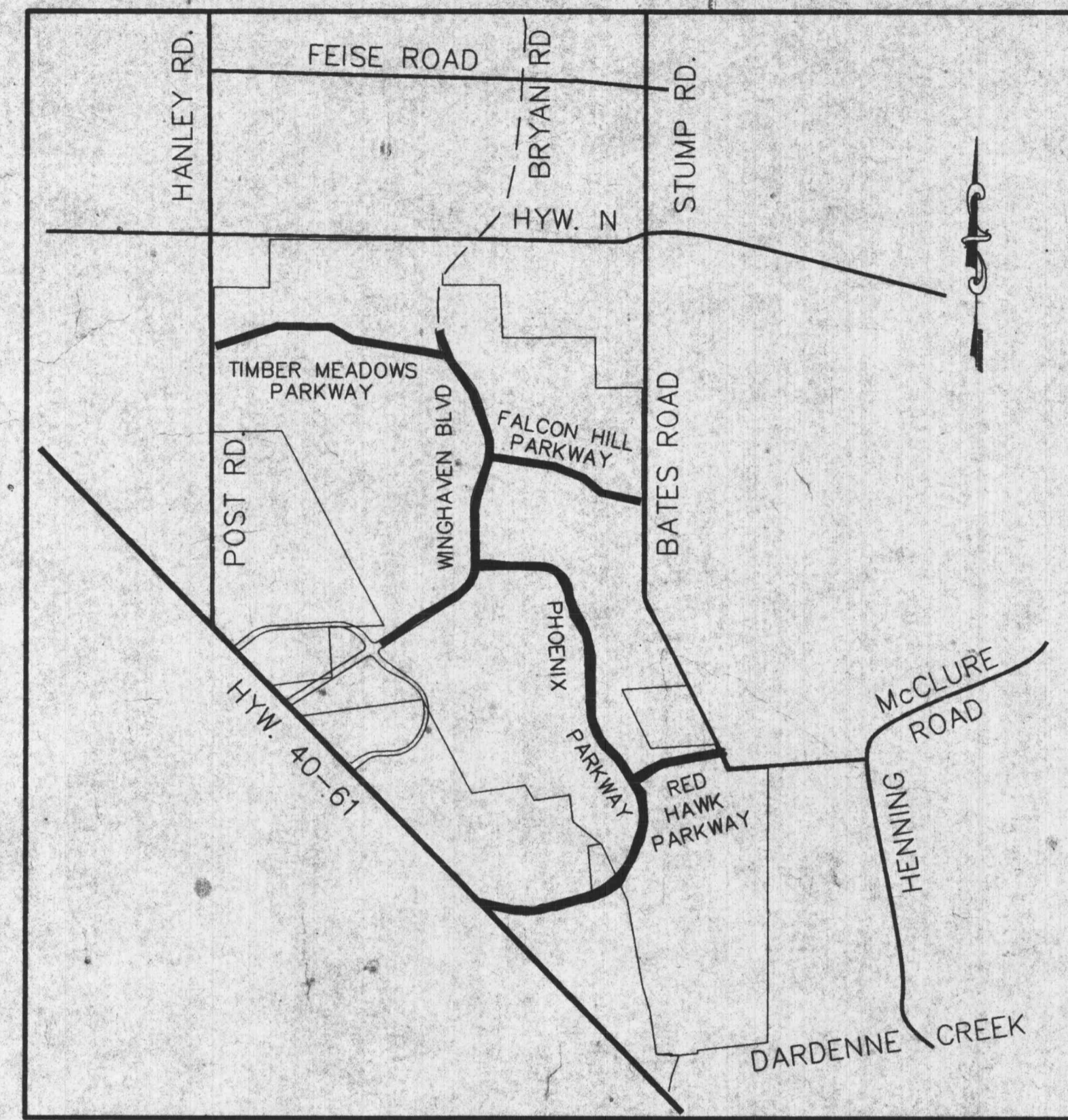
A TRACT OF LAND BEING PART OF U.S. SURVEYS 1669 AND 1641 IN TOWNSHIP 46 NORTH, RANGES 2 AND 3 EAST AND FRACTIONAL SECTIONS 11 AND 12 IN TOWNSHIP 46 NORTH, RANGE 2 EAST, ST. CHARLES COUNTY, MISSOURI AND PART OF MONSANTO ANIMAL AGRICULTURAL FARM, PLAT BOOK 22 PAGE 165, ST. CHARLES COUNTY, MISSOURI.

GENERAL NOTES

- 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.
- All filled places under buildings, proposed sanitary and storm sewer lines, and/or paved areas including trench backfills shall be compacted to at least 90% of maximum dry density as determined by the "Modified A.A.S.H.T.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 filled places within public roadways shall be compacted to at least 95% of the maximum dry density as determined by the "Modified A.A.S.H.T.O. T-180 Compaction Test" (ASTM D-1557), unless otherwise specified by local governing authority specifications. All tests will be verified by a Soils Engineer.
- Earth subgrade for paved areas must be compacted to 90% of maximum dry density as determined by the "Modified A.A.S.H.T.O. T-180 Compaction Test" (ASTM D-1557), and must be inspected and approved by a representative of the City, before paving can commence.
- No slope shall be greater than 3:1 and shall be either sodded or seeded and mulched.
- No area shall be cleared without permission of the Project Engineer.
- All grades shall be within 0.2 feet more or less of those shown on the grading plan.
- The computed bid yardage is to finish grades as shown, and includes the removal of subgrade where required.
- Siltation control devices shall be as shown on plans and approved by the local governing authority. Additional siltation control, if required, will be placed at the direction of the soils engineer on-site and the local governing authority prior to placement.
- If siltation control devices are destroyed by heavy rains, vandalism, etc., they are to be replaced immediately by Contractor.
- Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible or during the next seeding period after grading has been completed. Refer to Appendix A of St. Charles Soil and Water Conservation District - Model Sediment and Erosion Control Regulations.
- All existing trash and debris on site must be removed and disposed of off-site.
- Development is not located within the 100 Year Flood Plain Limits as shown on the F.E.M.A. Map for this area.
- All exterior sewer manholes shall be waterproofed on the exterior in accordance with Missouri Department of Natural Resources specifications. 10 CSR 3.120 (7)(E).
- Brick shall not be used on manholes.
- Storm sewers 18" diameter or smaller shall be A.S.T.M. C-14, unless shown on plans.
- Storm sewers 21" diameter or larger shall be A.S.T.M. C-76, Class III minimum, unless shown on plans.
- All storm pipe in the right of way, regardless of size, shall be reinforced concrete pipe (A.S.T.M. C-76, Class III) unless noted otherwise on the plans.
- All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
- All storm and sanitary trench backfills will be water jetted. Granular backfill will be used under pavement areas. This is to be done in the presence of a City representative. Water jetting shall be at 100% complete and approved prior to paving. Seven days shall pass for settling time prior to paving.
- Barricades will consist of three standard specifications markers with 9 Red Button Reflectors on red background mounted on two pound "1" channel sign post, with bottom of the marker 4 feet above top of pavement. (Sign No. DM4).
- All streets must meet the specifications and installation requirements of the City of Fallon.
- 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.
- All incoming pipes and outgoing pipes shall have positive drainage through structures. No flat base structures are allowed.
- Brick shall not be used on manholes.
- 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').
- The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspection.
- All sanitary and storm sewer shall meet all specifications and installation requirements of the local governing authority.
- All storm and sanitary trench backfills will be water jetted. Granular backfill will be used under pavement areas.
- Easement 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.
- All existing site improvements disturbed, damaged, or destroyed shall be repaired or replaced to closely match preconstruction conditions.
- 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.
- All construction and materials shall conform to the current construction standards of the Duckett Creek Sanitary District.
- 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 same size "clean" or "minus" stone from springline of pipe to 6 inches above the top of pipe.
- All creek crossings shall be grouted rip-rap as directed by District Inspectors. (All grout shall be high slump ready-mix concrete).
- 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.
- For precise location of irrigation crossings see plans prepared by Garland Irrigation Systems Contractor.

DRAWING INDEX

Sheet	Description
1	COVER SHEET
2-11	WATER PLANS
12	CONSTRUCTION DETAILS



LOCATION MAP

NOT TO SCALE

PROJECT BENCHMARK (U.S.G.S. DATUM)

SC-13
2.70 MILES N/NW OF THE INTERSECTION OF HIGHWAY 94 AND HIGHWAY D. ON THE NORTH SIDE OF THE WESTBOUND LANES OF HIGHWAY 40, 29.55' NE OF A PK NAIL IN THE CENTERLINE OF HWY 40, 39.2' SW OF THE CENTER OF THE TOP OF THE NW END OF A CMP, 10.0' NW OF THE CENTER OF A FIELD ENTRANCE. ELEVATION = 499.38'

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
—EX W— Existing water line	Double Water Meter Setting	H.W. Head Wall
—T— Tee & Valve	Single Water Meter Setting	V.T. Vent Trap
—H— Hydrant	C.I. Curb Inlet	T.B.R. To Be Removed
—C— Cap	S.C.I. Skewed Curb Inlet	T.B.R.&R To Be Removed & Relocated
18 Lot or Building Number	D.C.I. Double Curb Inlet	T.B.P. To Be Protected
—x— Existing Fence Line	G.I. Grate Inlet	T.B.A. To Be Abandoned
Existing Tree Line	A.I. Area Inlet	B.C. Base Of Curb
Street Sign	D.A.I. Double Area Inlet	T.C. Top Of Curb
Existing Contour	C.C. Concrete Collar	T.W. Top Of Wall
Proposed Contour	F.E. Flared End Section	B.W. Base Of Wall
Grouted Rip-Rap	E.P. End Pipe	(TYP) Typical
End of Lateral	E.D. Energy Dissipator	U.N.O. Unless Noted Otherwise
Asphalt Pavement	M.H. Manhole	U.I.P. Use In Place
Concrete Pavement	C.P. Concrete Pipe	

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 authenticated by the seal, signature and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in the project and specifically includes revisions after this date unless reauthenticated.

PICKETT, RAY & SILVER, INC.

Signature



DEVELOPER

PARIC CORPORATION
689 CRAIG ROAD
ST. LOUIS, MO. 63141
(314) 432 - 4320

NO.	REVISIONS	INT.
1	11-11-98 SHEETS 3,4,5,6,7 & 11 OF 12	SH
2	12-16-98 SHEET 10a	CB0
3	10.8.99 Sheets 2,3,4,5,6,7,8,9,10, 11a	TR
4	2-28-00 Add and delete sheets (see sheet 10a)	TR
5	4-26-00 SHEETS 4A,4B	KDN

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DRAWN	SLH	DATE	OCT-1998	1
CHECKED		DATE		
FIELD BOOK		PROJECT #	98-510E	12
		JOB ORDER #	DK0	