

GENERAL NOTES

- Underground utilities have been plotted from available information and therefore their locations 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 and/or construction of improvements.
- Contractor shall be responsible for the protection of all adjacent properties and roadways from siltation and erosion. Methods of controlling erosion and siltation shall not be limited to those shown on the plans.
- If bales are destroyed by heavy rains, vandalism, etc., they are to be replaced immediately by Contractor.
- All construction and materials shall conform to the current Construction Standards of The City of O'Fallon.
- Soil preparation and re-vegetation shall be performed according to Appendix A of the Model Sediment and Erosion Control Regulations for Urban Development.
- Where natural vegetation is removed during construction, vegetation shall be re-established in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible after construction has been completed. Refer to Appendix A of St. Charles Soil and Water Conservation District - Model Sediment and Erosion Control Regulations.
- All improvements removed for construction shall be replaced in kind.
- Topography shown is accurate to the nearest one half contour interval.
- The contractor shall limit the disturbed area during construction. The sanitary sewer route shall be used for access and material storage whenever possible.
- All sanitary sewer construction shall conform to current City of O'Fallon Standards and Specifications.
- All sewer tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor.
- Gas, water, and other underground utilities shall not conflict with the depth or horizontal location of existing and proposed sanitary and storm sewers including laterals.
- The contractor shall only clear the trees that need to be removed for construction of the sanitary sewers.
- All exterior sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri Department of Natural Resources specifications. 10 CSR-8.120 (7) (E).
- Brick shall not be used on sanitary manholes.
- All grout for rip-rap shall be high slump ready-mix concrete.
- All gravity sanitary manholes shall be a minimum of 48" diameter for 10" diameter and larger sanitary sewer lines.
- The City of O'Fallon Sanitary District shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspection.
- All sanitary trench backfills will be mechanically compacted in 8" lifts. Granular backfill will be used under pavement areas and shall be mechanically tamped where applicable.
- All Ductile Iron sanitary sewer pipe is to be class 51 or equal with "clean" 1/2" to 1" granular stone bedding uniformly graded. This bedding shall extend from 4" below the pipe to spring line of pipe. Immediate backfill over pipe shall consist of same size "clean" or minus stone from spring line of pipe to 6" above the top of pipe.
- All pipes shall have positive drainage through manholes. No flat base structures are allowed.
- The Contractor shall prevent all storm water, mud or construction debris from entering the existing sanitary system.
- Existing sanitary sewer service shall not be interrupted.
- Maintain access to existing residential driveways and streets at all times.
- Pre-manufactured adapters shall be used at all PVC to DIP connections. Rubber Boot "Mission" type couplings will not be allowed.
- Concrete encasement required (to DNR Specifications) when water line and sanitary line are closer than eighteen (18) feet vertical and ten (10) feet horizontal.

CONSTRUCTION PLANS for TURTLE CREEK SANITARY SEWER REPLACEMENT

"AS-BUILTS"
APRIL 2005

INDEX OF SHEETS

SHEET	DESCRIPTION
1	TITLE SHEET
2	SUMMARY OF QUANTITIES
3	PLAN AND PROFILE SHEET
4-5	DETAILS

These "As-Built" Sanitary Sewer plans, are based on actual field measurements conducted during April 2005 and the results are shown hereon. Pickett, Ray & Silver, Inc. is responsible only for the sanitary sewer "As-built" measurements.

By: *[Signature]* 5-25-05
 JAMES R. CHERVEK P.L.S., #2211
 STATE OF MISSOURI
 PICKETT, RAY & SILVER'S CORPORATE
 REGISTRATION NO. LS-54-D



SITE NOTES:

- SPOILS FROM EXCAVATION SHALL BE STORED ON THE NORTH SIDE OF THE TRENCH.
- MATERIALS AND GRANULAR FILL TO BE STAGED ON THE SOUTH SIDE OF THE TRENCH ALONG ITS FULL LENGTH.
- TRENCH SHALL BE BACKFILLED WITH COMPACTED FILL AND MECHANICALLY COMPACTED.
- ABANDONED MANHOLES SHALL HAVE TOPS REMOVED, AT LEAST THREE (3) FEET DOWN, AND GROUTED FULL WITH FLOWABLE FILL. STRUCTURES SHALL BE BELOW THE FINISHED GRADE.
- ALL DRAINTILES SEVERED DURING CONSTRUCTION SHALL BE RE-CONNECTED DURING CONSTRUCTION.
- GOLF COURSE SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF ALL SPRINKLER HEADS.
- SIDEWALKS SHALL BE REPLACED IN KIND WHERE DISTURBED.
- ALL DISTURBED AREAS SHALL BE FINISH GRADED TO DRAIN.
- CONSTRUCTION FENCE TO BE INSTALLED ALONG THE LIMITS OF DISTURBANCE.
- AFTER CONSTRUCTION IS COMPLETED THE GOLF COURSE SHALL BE SOLELY RESPONSIBLE FOR THE FINISHED GRADING, REPLACEMENT OF SOD, REPLACEMENT OF THE CART PATH AND PLANTING OF NEW TREES.
- ALL ABANDONED PIPES SHALL BE GROUTED FULL WITH FLOWABLE FILL.
- ALL FILL PLACED UNDER PROPOSED STORM AND SANITARY SEWER, PROPOSED ROADS, AND/OR PAVED AREAS 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 FILL PLACED UNDER 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 COMPATION. 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.

LEGEND

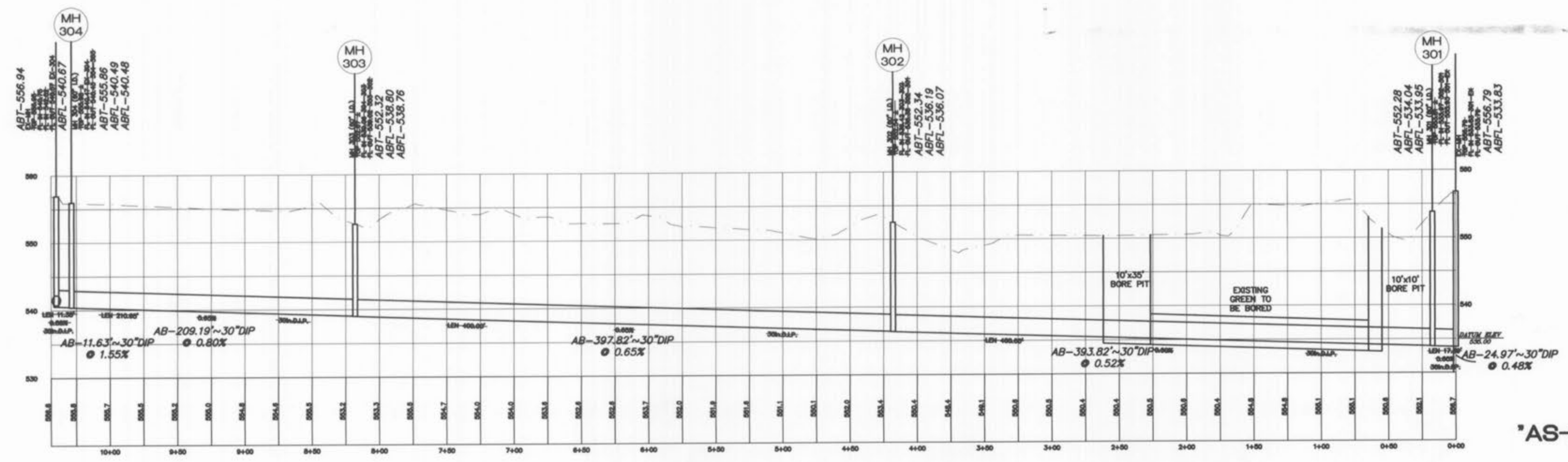
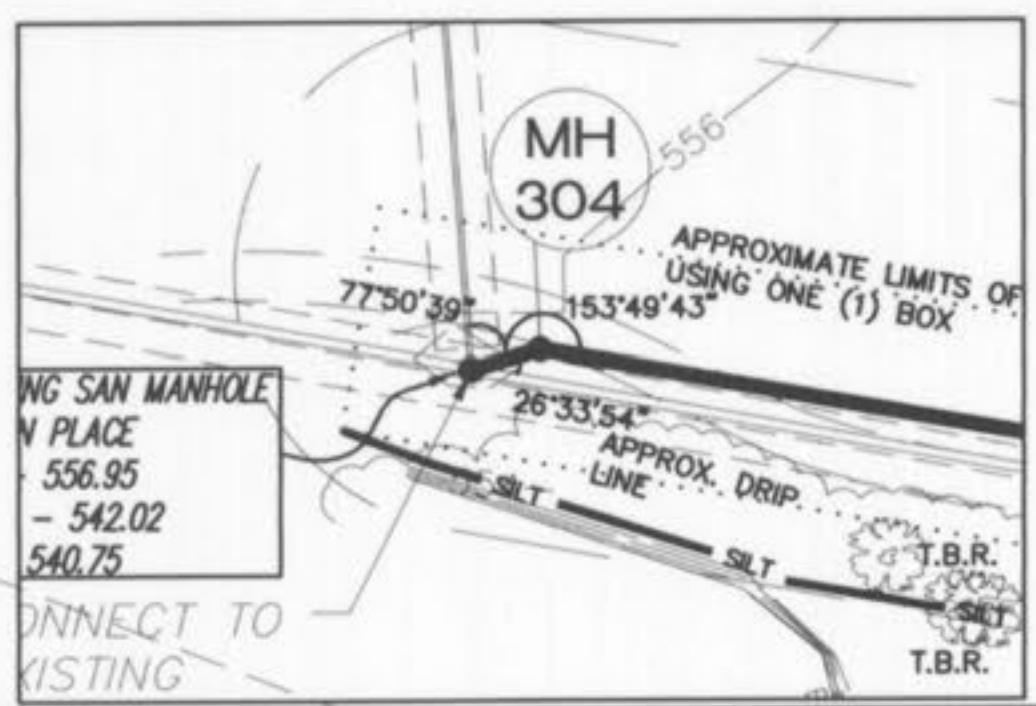
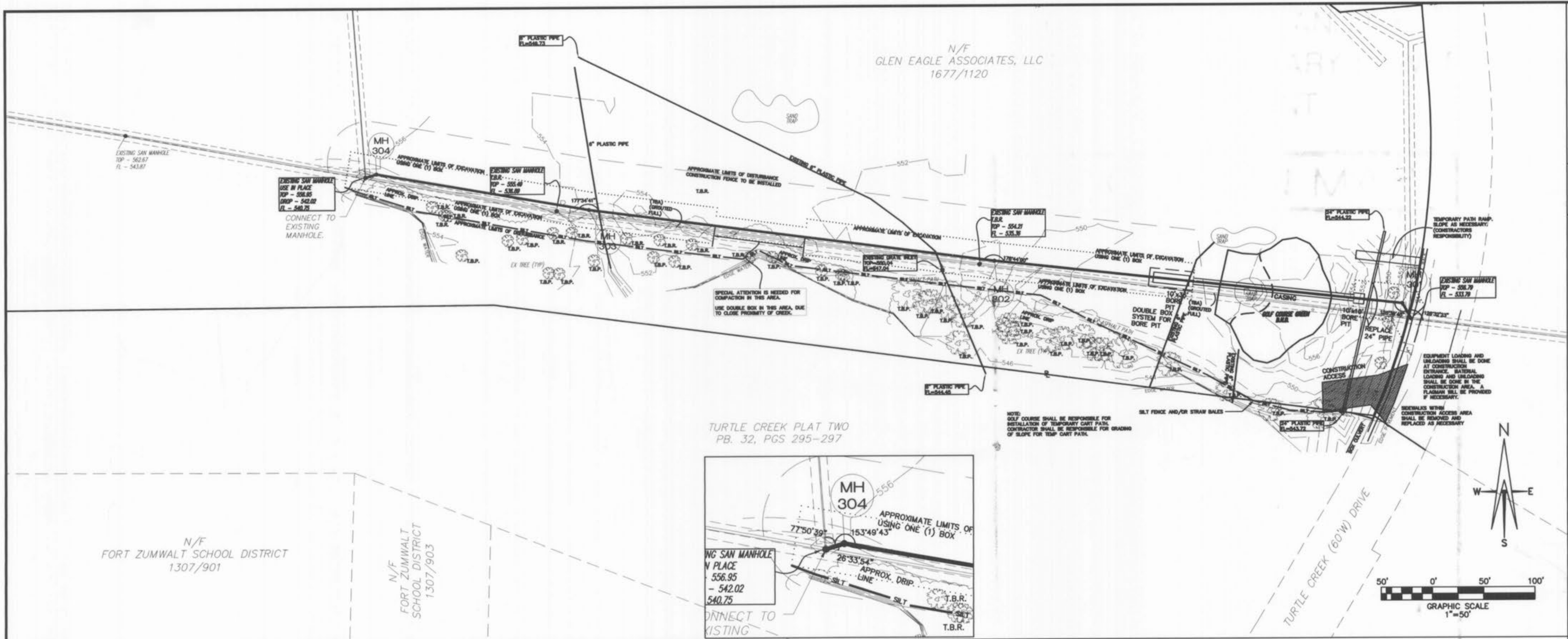
	SANITARY STRUCTURE		CLEAN OUT
	STORM STRUCTURE		T.B.R. TO BE REMOVED
	TEST HOLE		T.B.R.&R. TO BE REMOVED & RELOCATED
	POWER POLE		T.B.P. TO BE PROTECTED
	LIGHT STANDARD		T.B.A. TO BE ABANDONED
	CURB INLET		B.C. BASE OF CURB
	DCI DOUBLE CURB INLET		T.C. TOP OF CURB
	GI GRATE INLET (EXISTING)		T.W. TOP OF WALL
	AI AREA INLET (EXISTING)		TYP. TYPICAL
	DAI DOUBLE AREA INLET		U.N.O. UNLESS NOTED OTHERWISE
	FE FLARED END SECTION		U.I.P. USE IN PLACE
	EP END OF PIPE		EXISTING CONTOUR
	E.D. ENERGY DISSIPATOR		PROPOSED CONTOUR
	MH MANHOLE		TREE LINE
	RCP REINFORCED CONCRETE PIPE		SAN. SEWER (EXISTING)
	CMP CORRUGATED METAL PIPE		SAN. SEWER (PROPOSED)
	CIP CAST IRON PIPE		STORM DRAIN (EXISTING)
	PVC POLYVINYL CHLORIDE PIPE		STORM DRAIN (PROPOSED)
	VCP VITRIFIED CLAY PIPE		PHONE BOX
	GUY WIRE		IRON PIPE
	SIGN		WTR WATER LINE
	POST		HYDRANT
	WATER METER		CONCRETE PAVEMENT
	WATER VALVE		PLACED RIP-RAP W/UNDERLAIN FABRIC
	WATER SHUT OFF		GENERAL SURFACE DRAINAGE
	GAS VALVE		N.T.S. NOT TO SCALE
	OHE OVERHEAD ELECTRIC LINE		ROW RIGHT-OF-WAY
	C.L. CLEARING LIMITS		T.B.C. TOP BACK CURB
	E.O.A. EDGE OF ASPHALT		D.I.P. DUCTILE IRON PIPE
	E.O.C. EDGE OF CONCRETE		D.N.D. DO NOT DISTURB
	A.T.G. ADJUST TO GRADE		

ENGINEERS AUTHENTICATION
 The responsibility for the 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 excludes revisions after this date unless reauthenticated.

ORDER NO.
04-1290-01
 DATE
10/29/04
 1

ST. CHARLES ENGINEERING & SURVEYING, INC.
 801 S. FIFTH STREET, SUITE 202
 ST. CHARLES, MO 63301
 TEL: (636) 947-0607 FAX: (636) 947-2448

11/15/04 REVISED AS PER CITY COMMENTS



VERT. SCALE: 1" = 10'
HORIZ. SCALE: 1" = 50'

"AS-BUILTS" 4-25-05

11/15/04 REVISED AS PER CITY COMMENTS

TURTLE CREEK SANITARY PLAN AND PROFILE

ST. CHARLES ENGINEERING & SURVEYING, INC.
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