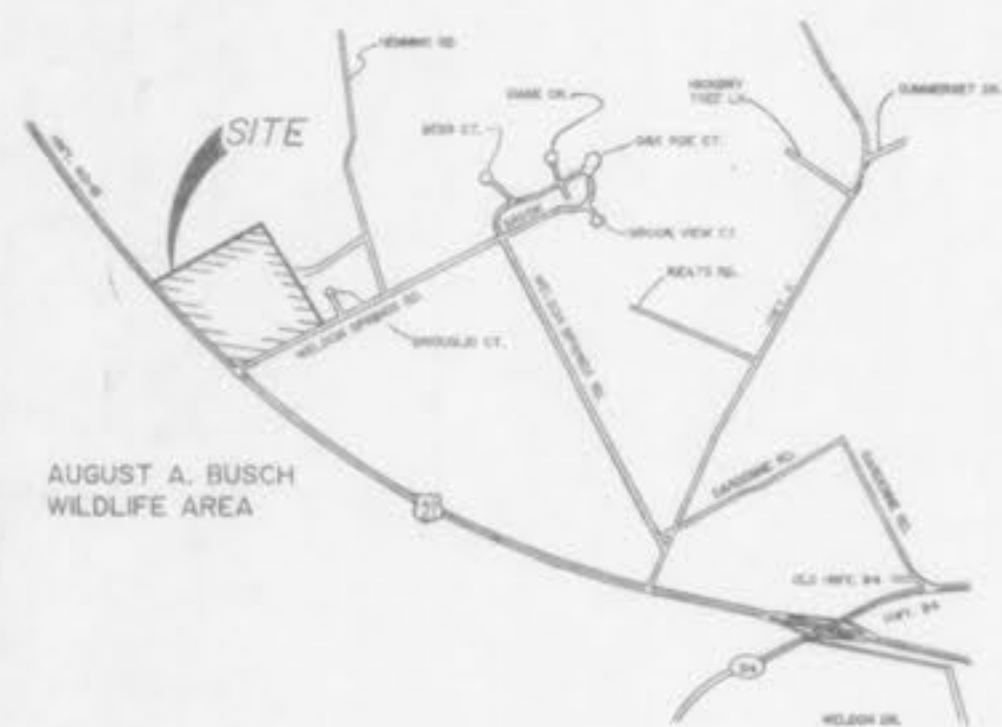


CARRIAGE HILLS SUBDIVISION

A FRACTIONAL PART OF U.S. SURVEY 1669,
TOWNSHIP 46 NORTH, RANGE 3 EAST
5th PRINCIPAL MERIDIAN,
O'FALLON, ST. CHARLES COUNTY, MISSOURI

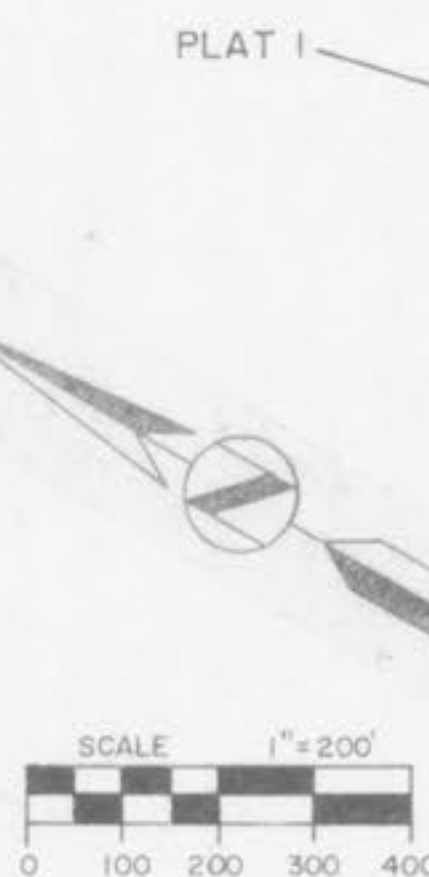


LOCATION MAP
N.T.S.

LEGEND

BM	BENCHMARK	MH	MANHOLE
CB	CATCH BASIN	NTS	NOT TO SCALE
CC	CONCRETE COLLAR	PVC	POLYVINYL CHLORIDE PIPE
CP	CAST IRON PIPE	R/W	RIGHT OF WAY
C	CENTER LINE	RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE	STA	STATION
CO	CLEAN OUT	TBM	TEMPORARY BENCHMARK
CONC.	CONCRETE	TC	TOP OF CURB
DCB	DOUBLE CATCH BASIN	UP	UTILITY POLE
EP	END OF PIPE	VCP	VITRIFIED CLAY PIPE
E/P	EDGE OF PAVEMENT	YCB	YARD CATCH BASIN
FF	FINISHED FLOOR	GT	GRATED TROUGH
FES	FLUSH END SECTION	FL	FLOW LINE
FO	FLUSH OUT	PVMT	PAVEMENT

—G—	GAS LINE	■	GRATE INLET
—W—	WATER LINE	—TV—	CABLE TELEVISION LINE
—E—	ELECTRIC LINE	TEE	TEE
—T—	TELEPHONE LINE	CROSS	CROSS
○	EXISTING MANHOLE	BEND	BEND
□	EXISTING CATCH BASIN		
●	PROPOSED MANHOLE	F.O.	FLUSH OUTLET
■	PROPOSED CATCH BASIN	PWG	PLUG END PIPE
---520---	EXISTING CONTOUR	REDUCER	REDUCER
---520---	PROPOSED CONTOUR		
—●—	PROPOSED SANITARY SEWER		
—■—	PROPOSED STORM SEWER		
BSMT.	ELEVATION AT LATERAL CONNECTION		
○	UTILITY POLE W/ GUY WIRES		
—●—	FIRE HYDRANT		
—V—	WATER VALVE		
—	GENERAL SURFACE DRAINAGE		
—	SWALE		
—	HIGH WATER ELEVATION		



BENCHMARKS:

REFERENCE BENCHMARK - CHISLED SQUARE ON TOP OF WINGWALL AT EAST END OF WESTBOUND U.S. HIGHWAYS 40 & 61 BRIDGE OVER DARDENNE CREEK. ELEV. - 501.92 (FEET NGVD/IRM 74, U.S. DEPT. OF HOUSING AND DEV. NATIONAL FLOOD INSURANCE STUDY, COMMUNITY-PANEL NO. 290315 0250 A, PAGE 250 OF 350).

SITE BENCHMARK NO. 1 - CHISLED SQUARE ON N.W. COR. OF WESTBOUND U.S. HIGHWAYS 40 & 61 CULVERT HEADWALL, STA. 406+75 (APPROX. 0.4 MI. WEST WELDON SPRINGS RD.) ELEV. - 501.91.

SITE BENCHMARK NO. 2 - SPIKE IN S. SIDE OF TREE ON NORTH SIDE OF WELDON SPRINGS RD. (APPROX. 1300 FEET EAST OF HWY 40-61) ELEV. 565.00.

UTILITY INFORMATION

GAS - ST. CHARLES GAS CO.

WATER - ST. CHARLES CO. DISTRICT NO. 2

ELECTRIC - UNION ELECTRIC

TELEPHONE - SOUTHWESTERN BELL TELEPHONE CO.

SANITARY - DUCKETT CREEK SEWER DISTRICT

FIRE - WENTZVILLE FIRE PROTECTION DIST.

SCHOOL - FRANCIS HOWELL

GENERAL NOTES:

1. Trench backfills within the road right-of-way will be water jetted and granular backfill will be used under paved areas.
2. All filled places under proposed storm and sanitary sewer lines and/or paved areas including trench backfills within and off the road right-of-way shall be compacted to 90% of maximum density as determined by the "Modified AASHTO T-100 Compaction Test" (ASTM D-1557). All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations.
3. All filled places in proposed and existing St. Charles County roads (highways) shall be compacted from the bottom of the fill up to 90% maximum density as determined by "Standard Proctor Test AASHTO T-99, Method G." (ASTM D-698). All tests shall be verified by a Soils Engineer concurrent with grading operations.
4. All granular fill shall be water jetted.
5. All sanitary sewer construction shall conform to current Duckett Creek Sewer specifications.
6. All manhole and catch basin 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, provided said stakes do not fall in the ditch line. If stakes fall within the ditch line, the Sewer Contractor or Job Superintendent shall notify the Engineer by phone that stakes are needed and allow 48 hours for cuts.
7. All dimensions are in feet and decimals of a foot unless otherwise specified.
8. Confirmation of soils compaction shall be the responsibility of the Developer.
9. It shall be the responsibility of the Contractor to perform his services in a workmanlike manner and to see that all facilities are complete and useable.
10. The Contractor shall notify the Engineer of any discrepancy before proceeding with construction. Dimensioned distances take precedence over scaled distances.
11. Easements shall be provided for storm sewers, sanitary sewers and all utilities on the record plat.
12. 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.
13. Existing 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, is the responsibility of the Contractor.
14. All construction and materials used shall conform to current standards.
15. All storm sewer pipe under pavement shall be reinforced concrete pipe (A.S.T.M. C-76) Class II.
16. Corrugated metal pipe shall conform to specifications for corrugated culvert pipe M-36, A.A.S.H.T.O.
17. No changes shall be made without written permission of the Engineer.
18. Clearing is not allowed except as shown on the construction plans.
19. All grades shall be within 0.2 feet more or less of those shown on the grading plan.
20. All swales shall be sodded or seeded to prevent erosion.
21. No slope shall be greater than 3 : 1.
22. All existing and required monuments shall be shown on the final record plat.
23. No graded area shall remain undeveloped without being seeded to provide erosion control. Straw bales shall be provided for sediment control where needed.
24. All grout for rip-rap shall be high slump ready-mix concrete.
25. Hazard markers will consist of three (3) Standard Specification Manual on Uniform Traffic Control Devices. End of Roadway Markers mounted on two (2) pound "Y" channel sign posts. Each marker shall consist of an eighteen (18) inch diameter reflectorized red panel. The bottom of each panel shall be scribed a minimum of four (4) feet above the elevation of the pavement surface.
26. Concrete cut-off walls are to be constructed at each end of pipe.

PREPARED BY:

OWNER : SPRING MEADOWS PARTNERSHIP
1821 SHERMAN DR.
ST. CHARLES, MO. 63303
(314) 946-2886

DEVELOPER : GRIFFIN DEVELOPMENT LTD.
1821 SHERMAN DR.
ST. CHARLES, MO. 63303
(314) 946-2886

ENGINEER : TERRA ASSOCIATES LTD.
1821 SHERMAN DR.
ST. CHARLES, MO. 63303
(314) 946-3422

REVISED 9/9/87 PER CITY OF O'FALLON
COMMENTS DATED 9/4/87.

Approved
GBA - GRH
9-15-87
Subject to
entrance detail
approved

TERRA ASSOCIATES

1821 SHERMAN DRIVE
ST. CHARLES, MISSOURI 63303
PHONE: (314) 724-2277 or 946-2886

PROJECT NO. 20485
DATE: 8/26/87

CONSTRUCTION PLANS

ENGINEER'S SEAL

STATE OF MISSOURI
TERRA ASSOCIATES LTD.
E-20075
PROFESSIONAL ENGINEER
9/15/87