CONSTRUCTION PLANS
HIDDEN CREEK
PHASE 2
A TRACT OF LAND BEING ALL OF LOT 10 OF HOWELL'S PRAIRIE TRACT U.S. SURVEY 1669
ST. CHARLES COUNTY, MISSOURI

GENERAL NOTES

1. 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.

2. Erosion control shall not be limited to what is shown on the plans. The contractor shall take whatever means necessary to prevent siltation from entering adjacent roadways, properties, and ditches. Such control might include channeling runoff into sediment basins, channeling runoff into areas where an extra row of straw bales are used. A silt fence might be considered, if necessary.

3. No area shall be cleared without permission of the developer.

4. Owner/Developer assumes full responsibility as to the performance of the grading operation and assurance that all properties and County and State roads will be adequately protected.

5. Soil preparation and re-vegetation shall be performed according to Appendix A of the Model Sediment and Erosion Control Regulations for Urban Development.

6. 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.

7. Site preparation includes the clearance of all stumps, trees, bushes, shrubs, and weeds; the grubbing and removal of roots and other surface obstructions from the site; and the demolition and removal of any man-made structures. The unsuitable material shall be properly disposed of off-site. Topsoil and grass in the fill areas shall be thoroughly disced prior to the placement of any fill. The Soils Engineer shall approve the discing operation.

8. Compaction equipment shall consist of tamping rollers, pneumatic-tired rollers, vibratory rollers or high speed impact type drum rollers acceptable to the Soils Engineer. The rollers shall be designed so as to avoid the creation of a layered fill without proper blending of successive fill layers.

9. The Soils Engineer shall observe and test the placement of the fill to verify that specifications are met. A series of fill density tests will be determined on each lift of fill. Interim reports showing fill quality will be made to the Owner at regular intervals. Developer must supply City Construction Inspectors with soils report prior to or during site soil testing.

10. The Soils Engineer shall notify the Contractor of rejections of a lift of fill or portion thereof. The Contractor shall rework the rejected portion of fill and obtain notification from the Soils Engineer of its acceptance prior to the placement of additional fill.

11. All Areas to receive fill shall be scarified to a depth of not less than 6 inches and then compacted to at least 85 percent of the maximum density as determined by the Modified AASHTO T-1800 Compaction Test (ASTM-D1557). Natural slopes steeper than 1 vertical to 5 horizontal to receive fill shall have horizontal benches cut into the slopes before the placement of any fill. The width and height to be determined by the Soils Engineer. The fill shall be loosely placed in horizontal layers not exceeding 8 inches in thickness and compacted in accordance with the specifications given below. The Soils Engineer shall be responsible for determining the acceptability of soils placed. Any unacceptable soils placed shall be removed at the Contractor's expense.

12. The sequence of operation in the fill areas will be; fill, compact, verify acceptable soil density, and repetition of the sequence. The acceptable moisture contents during the filling operation are those at which satisfactory dry densities can be obtained. The acceptable moisture contents during the filling operation in the remaining areas are from 2% to 8% above the optimum moisture content.

13. The surface of the fill shall be finished so that it will not impound water. If at the end of a days work it would appear that there may be rain prior to the next working day, the surface shall be finished smooth. If the surface has been finished smooth for any reason, it shall be scarified before proceeding with the placement of succeeding lifts. Fill shall not be placed on frozen ground, nor shall filling operations continue when the temperature is such as to permit the layer under placement to freeze.

14. All cut and fill slopes should be a maximum of 33% slope (3:1) after grading.

15. 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 is proposed roads shall be compacted from the bottom of the fill up. All tsts shall be verified by a soils engineer concurrent with grading and backfilling operations. Ensurethe 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 rollong may be required to verify soil stability at the discretion fo the City of O'Fallon.

16. All paving to be in accordance with the St. Charles County Standards and specifications except as modified by the City of O'Fallon ordinances.

17. Soft soil in the bottom and banks of any existing or former pond site should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed right-of-way locations or on storm sewer locations.

18. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.

19. If straw bales or silt fences are destroyed by heavy rains, vandalism, etc., they are to be replaced immediately by contractor.

20. When grading operations are completed or suspended for more than thirty (30) days, permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the Designated Official's recommendation. Refer to Appendix A of St. Charles Soil and Water Conservation District – Model Sediment and Erosion Control Regulations. All finished grades (areas not to be disturbed by improvement) in excess of 20% slopes (5:1) shall be mulched and tacked at the rate of 1 pounds per 1000 square feet when seeded.

21. All existing trash and debris on-site must be removed and disposed of off-site.

22. Debris and foundation material from any existing on-site building or structure which is scheduled to be razed for this development must be disposed of off-site.

23. The total yardage of this project is based on a 15% ± shrinkage factor.

24. The shrinkage factor is subject to change, due to soil conditions (types and moisture content), weather conditions, and the percentage of compaction actually achieved at the time of the year grading is performed. As a result, adjustments in final grade may be required. If adjustments need to be made, the contractor shall contact St. Charles Engineering and Surveying prior to completion of the grading.

25. Earth quantities were obtained from aerial grid mapping with contours at two foot intervals, with a tolerance of plus or minus one foot or one-half (2) contour intervals.

26. The vertical grading tolerance shall be plus or minus 0.2 feet for all rough grading.

27. The Contractor shall prevent all storm/surface water, mud or construction debris from entering the existing sanitary sewer system.

28. The most stringent of the above requirements shall apply.

29. Water for wash-off pad will be brought onto site by truck until such time that water can be provided through existing water lines.

30. Coordination between the on-site grading of this project with any grading being done on the O'Fallon Road Improvement Project is required.

31. Each fire hydrant shall be provided with a control valve in the hydrant connection such that the hydrant can be removed from service without shutting off water supply to other fore hydrants.

O'Fallon File
Number 1002.02

32. Each fire hydrant shall have not less than two 2-1/2 inch outlets and one 4-1/2 inch outlet, a 5-1/4 inch valve, a 6 inch barrel and shall be of the breakaway design, frost free chain, left hand open design and have National Standard Threads.

33. Developer must supply City construction inspectors with soils reports prior to or during site soil testing.

34. Sidewalks, curb ramps, ramp and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAG) along with required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAG guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer. (Ensure at least one 8' wide handicap access aisle is provided and curb ramps do not project into handicap access aisle.)

35. All sign and entrance monument locations and sizes must be approved separately through the Planning Division.

36. All proposed utilities shall be located underground.

37. 5/8" trash bar shall be included on all inlets.

38. Any part of the existing O'Fallon Rd Right of Way that is to be vacated and pavement that is to be removed will be handled by St. Charles County. None of the vacated land is anticipated to be deeded to any of the Hidden Creek Lots or Common Ground.

39. According to Flood Insurance Rate Map (FIRM) Panel Number 29183C435 E Dated August 2, 1996 the Northern Portion of this Plat is in the FEMA Regulated Floodplain and FloodWay.

40. St. Charles County Highway Department shall be notified 24 hours prior to the statrt of construction. Contact Vance Gribble, Chief Inspector, at 636-949-7305.

41. A Special Use Permit shall be obtained from St. Charles County Highway Department before any work is preformed within O'Fallon Rd right of way. Contact Donna C. Ray, Highway Project Engineer, at 636-949-7305.

42. Rip rap shown on at flared ends will be evaluated in the field after instalation for effectiveness and field modified if necessary to reduce erosion of the existing and new channels.

DUCKETT CREEK SANITARY DISTRICT CONSTRUCTION NOTES

1. 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 shown on these plans, shall be the responsibility of the contractor and shall be located prior to any gradign or construction of improvements.

2. 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.

3. All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match pre-construction conditions.

4. 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 proofrolling and compaction.

5. The contractor shall prevent all storm, surface water, mud and construction debris form entering the existing sanitary sewer system.

6. All sanitary sewer flowlines and tops built without elevations furnished by the engineer will be the responsibility of the sewer contractor.

7. Easements shall be provided for all sanitary sewers, storm sewers and all utilities on the record plat.

8. All construction and materials shall conform to the current construction standards of the Duckett Creek Sanitary District.

9. The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for coordination of inspection.

10. 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 2-2 ½ feet.

11. All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri Dept. of Natural Resources Specification 10 CSR-8.120(7)(E).

12. All PVC sanitary sewer pipe shall conform to the requirements of ASTM-D3034 Standard Specification for PSM Polyvinyl Chloride Sewer Pipe, SDR-35 or equal, with "clean" ½ 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.

13. All sanitary and storm sewer trench backfills shall be water jetted. Granular backfill will be used under pavement areas.

14. All pipes shall have positive drainage through manholes. No flat invert structures are allowed.

15. All creek crossings shall be grouted rip-rap as directed by District inspectors. (All grout shall be high slumpp ready-mix concrete).

16. Brick shall not be used on sanitary sewer manholes.

17. Existing sanitary sewer service shall not be interrupted.

18. Maintain access to existing residential driveways and streets.

19. Pre-manufactured adapters shall be used at all PVC to DIP connections. Rubber boot / Mission-type couplings will not be allowed.

20. Any permits, licenses, easements, or approvals required to work on public or private properties or roadways are the responsibility of the developer.

SEWER MAIN INSTALLATION ALWAYS KEEP THE SEWER MAIN ON EASEMENT

1. Sewer mains are to be at least 8" PVC with a SDR35 rating.

2. On new construction and sewer taps, as-built location of laterals must be provided to Duckett Creek.

3. Final Testing: A Mandrel must be pulled through and an air test may be required.

4. All trench backfill under paved areas shall be 3/4" minus granular backfill, water jetted, and all trench backfills may be earth material (free of large clods or stones, nothing over a 6" diameter) and shall be water jetted, inspected and approved by Duckett Creek.

5. All drop sewer lines are to be ductile iron for the first 20', upstream from the manhole.

6. All drop manholes are to be 48", waterproofed. All double drop manholes are to be 60" water proofed.

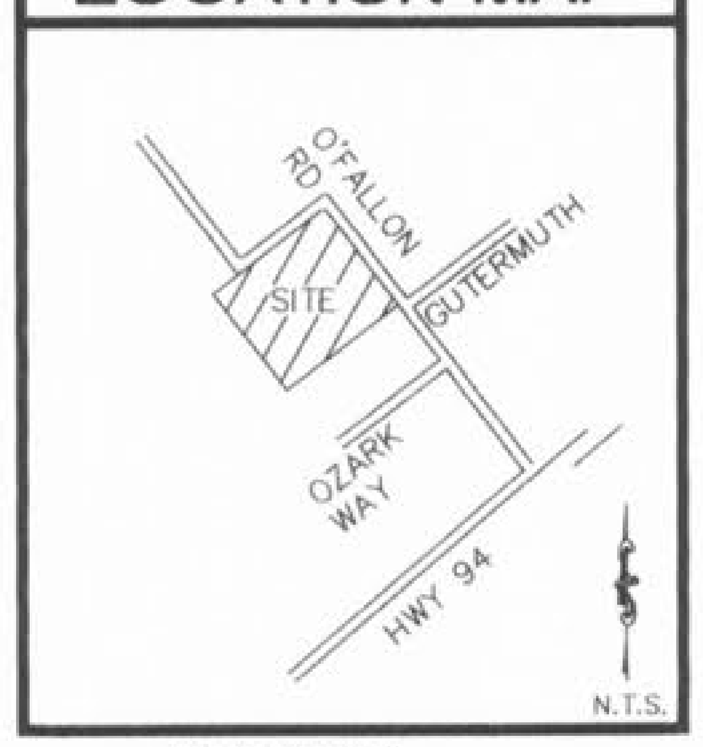
7. 42" manholes/Waterproofed are used for 8" sewers only.
48" manholes/Waterproofed are used for all sewer over 8".

8. All sewer mains 20' or more in depth are to be C900PVC.

9. All sewers within the 1:1 shear plane of the road shall be granular backfilled.

NOTE: 48 HOUR NOTICE REQUIRED ON ALL INSPECTIONS

LOCATION MAP



SUBDIVISION NOTES:

AREA OF PHASE 2 – 43.51 ACRES
PHASE TWO EXTENDS NORTH OF PHASE ONE

NUMBER OF LOTS 73
FRONT YARD SETBACK 25'
SIDE YARD SETBACK 6'
REAR YARD SETBACK 25'

Drive way locations shall not interfere with the sidewalk handicap ramps.

City approval of the construction Site plans does not mean that single family dwelling units can be constructed on the lots without meeting the building setbacks as required by the Zoning Code.

All street signs and traffic signals shall be colored black in accordance with the approved MoDOT specifications.

All sign posts and backs and bracket arms shall be painted black using Carboline Rustbond Penetrating Sealer SG aand Carboline 133 HB paint (or equivalent as approved by the City and/or MoDOT)

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 control fences (possible methods of control are detailed on the interum grading plan). Control shall commence with grading and be maintained thughout the project until acceptance of the work by the Owner and/or City if O'Fallon and/or St. Charles County. The Contractor's responsibilities include all design and implementation as required to prevent erosion and depositing of silt. The Owner and/or the City of O'Fallon and/or St. Charles County 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 St. Charles County.

All paved surfaces willbe kept free of dirt, mudm rocks, and other debris.

FLOOD PLAIN: ACCORDING TO FLOOD INSURANCE RATE MAP (FIRM) PANEL NUMBER 29183C435 E, DATED AUGUST 2, 1996, THIS PLAT IS IN ZONE AE FLOODPLAIN. THE LIMITS OF THE FLOODWAY, EXISTING FLOODPLAIN, AND PROPOSED FLOODPLAIN ARE PLOTTED ON THIS PLAN SET.

NOTE: ALL LOTS SHALL BE GRADED TO AN ELEVATION ABOVE THE 100-YEAR FLOODPLAIN. LOW SILL ELEVATIONS SHALL BE A MINIMUM OF ONE (1) FOOT ABOVE THE BFE.

Site Benchmark (On USGS Datum)– Elevation 485.66 – Iron Rod with Aluminum Disk on the North Side of existing O'Fallon Road being 59'+ or – East of the Most Northern Corner of Property.

Site is served by:

Water	Missouri American Water 314-991-3404
Sewer	Duckett Creek Sewer District 636-441-1244
Telephone	Southwestern Bell Telephone 636-949-1320
Electric	Ameren UE 636-925-3216
Gas	St. Charles Gas Company 636-978-2663
Cottleville Fire Protection District	
Francis Howell School District	
Pipeline	Explorer Pipeline

LEGEND

(symbol)	SANITARY STRUCTURE	C.O.	CLEAN OUT
(symbol)	STORM STRUCTURE	T.B.R.	TO BE REMOVED
(symbol)	TEST HOLE	T.B.R.&R.	TO BE REMOVED & RELOCATED
(symbol)	POWER POLE	T.B.P.	TO BE PROTECTED
(symbol)	LIGHT STANDARD	T.B.A.	TO BE ABANDONED
C.I.	CURB INLET	B.C.	BASE OF CURB
D.C.I.	DOUBLE CURB INLET	T.C.	TOP OF CURB
G.I.	GRATE INLET (EXISTING)	T.W.	TOP OF WALL
A.I.	AREA INLET (EXISTING)	TYP.	TYPICAL
D.A.I.	DOUBLE AREA INLET	U.N.O.	UNLESS NOTED OTHERWISE
F.E.	FLARED END SECTION	U.I.P.	USE IN PLACE
E.P.	END PIPE	(symbol) 572	EXISTING CONTOUR
E.D.	ENERGY DISSIPATOR	(symbol) 578	PROPOSED CONTOUR
M.H.	MANHOLE	(symbol)	TREE LINE
R.C.P.	REINFORCED CONCRETE PIPE	(symbol)	SAN. SEWER (EXISTING)
C.M.P.	CORRUGATED METAL PIPE	(symbol)	SAN. SEWER (PROPOSED)
C.I.P.	CAST IRON PIPE	(symbol)	STORM DRAIN (EXISTING)
PVC	POLYVINYL CHLORIDE	(symbol)	STORM DRAIN (PROPOSED)
VCP	VITRIFIED CLAY PIPE	(symbol)	PHONE BOX
(symbol)	GUY WIRE	(symbol)	IRON PIPE
(symbol)	SIGN	(symbol)	WATER LINE, SIZE
(symbol)	POST	(symbol)	HYDRANT
(symbol)	WATER METER	(symbol)	CONCRETE PAVEMENT
(symbol)	APPROX. DIRECTION OF WATER FLOW	(symbol)	PLACED RIP-RAP W/UNDERLAIN FABRIC
		S/S	STREET SIGN
		STOP	STOP SIGN

INDEX

DSW 3/26/04
All prior comments have been addressed

6/4/04
File Copy
APPROVED

RECEIVED
MAY 25 200
ENGINEERING DEPARTMENT

01/16/04	REVISED AS PER COMMENTS
02/19/04	REVISED AS PER COMMENTS

HIDDEN CREEK
PHASE 2
VANTAGE HOMES, INC.

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

DEVELOPER

VANTAGE HOMES, INC.
P.O. BOX 1270
ST. PETERS, MO 63376
Rob Tiemann
(636) 240-7662

STATE OF MISSOURI
KARL ANTHONY ...
NUMBER
PE-2003015033
PROFESSIONAL ENGINEER
2-24-04

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. 02-0162
DATE 12/15/03

PH2-1