2. Any destruction of existing improvements or features shall be repaired or replaced in kind by the contractor and shall remain the contractors responsibility. 3. 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. 4. It shall be distinctly understood that failure to specifically mention any work which would normally be required to complete the project shall not relieve the contractor of his responsibility to perform

5. Contractor shall keep road clear of mud and debris. 6. All filled areas to be compacted to a minimum of 90 percent of maximum dry density as determined by the Modified AASHTO Compacting Test, ASTM D1557-78, or as specified by the soils

7. It shall be the grading contractors responsibility to notify the soils engineer prior to work in progress and to comply with recommendations by the soils engineer with regards to compaction, surface preparation, and placement of fill.

8. It shall be the grading contractors responsibility to provide the location of any existing underground utilities by notifying utility companies prior to grading operations. 9. The grading contractor shall cut or fill to subgrade elevation under all areas to be paved.

(Subgrade is figured at pavement depth). Rough grading is to be completed within \pm 0.20'. 10. All drainage swales shall be sadded or seeded and mulched to prevent erosion. 11. All stumps, limbs, and other debris are to be removed from the site unless a suitable dump area is approved in advance by the owner after consulting with the sails engineer if burning is approved. 12. Subgrade is included in the total bid yardage. (Subgrade is figured at pavement depth). 13. Slopes to receive fill which are steeper than 5:1 should be benched prior to placement of

14. If fill is to be place in areas of soft soil, particularly in draws, drainage channels and other law lying areas, the soft soil shall be excavated until firm soil is encountered. 15. All grading shall comply with the soils engineer's recommendations. 16. Permanent grass is required at completion of grading or a 30 day suspension of grading will be

17. A drainage easement will be granted to the City of O'Fallon for any creeks to remain in the 18. Silitation control will be installed prior to any grading or construction operations and shall be inspected and maintained as necessary to insure their proper function until sufficient vegetation has

19. The installation and maintenance of all silitation controls shall be the responsibility of the developer 20. Additional siltation control may be required as directed by the local governing authority. 21. All grading areas shall be protected from erosion by erosion control devices and/or seeding and

mulching as required by the City of O'Fallon. 22. All fill placed in proposed roads shall be compacted from the bottom of the fill up to 90 maximum density as determined by the Modified AASHTO T-180 Compaction Test or 95 maximum density as determined by the Standard Proctor Test AASHTO T-9. All tests shall be verified by a

soils engineer concurrent with grading and backfilling operations. 23. Erosion and sediment control structures shall be maintained throughout the construction process. 24. The Developer shall provide the City of O'Fallon construction inspectors with soils reports prior to

25. 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 fabric fences (possible methods of control are detailed in the plan). Control shall commence with grading and be maintained throughout the project until acceptance of the work by the Owner and/or the City of O'Fallon and/or MoDOT The Contractor's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The Owner and/or the City of O'Fallon and/or MoDot may at their option direct the Contractor in his methods as deemed fit to protect property and improvements. Any depositing of any silts or mud on new or existing pavement or in new or existing 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 MoDOT

26. All erosion control systems shall be inspected and necessary corrections made within 24 hours of any rainstorm resulting in one-half inch of rain or more. 27. Erosion control shall not be limited to what is shown on the plan. Whatever means necessary shall be taken to prevent siltation and erosion from entering natural streams, adjacent roadways,

28. No graded area shall remain bare for over 6 months without being seeded or mulched.

29. No slope shall exceed 3(Horz.): 1(Vert.). 30. All filled places under proposed storm and sanitary sewer 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 AASHOT T-99.

31. When deemed necessary, positive steps should be exercised to prevent the soil from damaging adjacent property and silting up all storm drainage systems whether on or off site. 32. All low places whether on-site of off-site should be graded to allow drainage by installing

33. Any wells and/or springs which may exist on this property should be located and sealed in a manner acceptable to the City of O'Fallon.

34. All trash and debris on-site, either existing or from construction, must be removed and disposed 35. Debris and foundation material from any existing on-site building or structure which is scheduled to be rozed for this development must be disposed of off-site. All existing buildings and fencing is

36. Soft soils in the bottom and banks of any existing or former pand sites or tributaries should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed public right-of-way locations or on any storm sewer location. Dewatering of existing pond shall not exceed 50 GPM.

37. Please notify the Director of Public Works for the City of O'Fallon 24 hours prior to the commencement of grading. No building permits will be issued by the City of O'Fallon until construction plans are approved and the final plat recorded.

38. A LOMR (Letter of Map Revision) from FEMA shall be obtained from FEMA once grading is completed to remove proposed lots out of the 100-year flood plain limits. 39. The sediment control plan should be implemented before grading begins. This should follow the guidelines in the model sediment and erasion control regulations by St. Charles Soil and Water

40. The low sill elevation for any proposed structures adjacent to the flood plain shall be a minimum of 1(one) foot above the 100-year flood elevation. 41. All grading adjustments shall be submitted to and receive approval from the City of O'Fallor ined

42. When utilized temporary sitation ponds\structures shall be completely removed following re-establishment of vegetation. Pands shall be backfilled, compacted, and graded to provide positive drainage and then seeded and mulched.

ESTIMATED CONSTRUCTION SCHEDULE

1. CLEARING AND GRUBBING: PRESENT - JANUARY 2004

2. ROUGH GRADING: JANUARY - APRIL 2004 J. CONSTRUCTION OF SEWERS, UTILITIES, ROADS: APRIL - JUNE 2004

5. LANDSCAPING: AUGUST 2004

1. This site is in the following Districts: City of O'Fallon Sewer District City of O'Fallon Fire Protection

District Fort Zumwalt School District 2. This site is in the following Utility Service Areas: Peblic Water District #Z AT&T Broadband Ameren JE Company St. Charles County Gas Company Century Tel Sanitary sewer connections shall be as approved by the Public Water and Sewer Dietrict No.2 and

4. Storm Water Management shall be designed pursuant to the requirements of City of O'Fallon and shall discharge at an adequate natural discharge point.

Grading shall be per City of O'Fallon standards. 7. Street trees, landscaping and street lights shall be per City of O'Fallon standards 8. The underground utilities shown herein were plotted from available information and do not necessarily reflect the actual existence, nonexistence, size, type, number, or location of these or other utilities. The general contractor shall be responsible for verifying the actual location of all underground utilities, shown or not shown, and shall be located in the field prior to any grading, excavation, or construction of improvements. The provisions shall in no way, absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMO, 9. The Source of topographic information is by Aerial Survey by Walker & Assoc. dated 4-4-02 10. All proposed utilities and sewers shall be covered by easements granted to the appropriate utility

11. This project is in compliance with Article 25 of the City of O'Fallon's Zoning Code.

12. All sidewalks shall be 4' wide minimum and comply with City of O'Fallon ADA Standards. 13. All streets must meet the specifications and installation requirements of the City of O'Fallon.

14. Proposed light standards shall be 16' tall max. 15. Development density = 2.72 Lots per Acre.

16. Existing zoning: R-1 P.U.D.

17. No known wetlands are on the subject property. 18. Lot information: min. width at building line - 70', side yard - 6', front yard - 25', rear yard -

19. No lots shall have driveway access to Sonderen Extension. 20. All necessary utilities (public or private) will be available, functioning and useable prior to the

24. City approval of the construction site plans does not mean single family and two family dwelling units can be constructed on the lots without meeting the building setbacks, as required by the zoning

issuance of any occupancy permits. 21. Any septic tanks or leach fields to be removed per St. Charles County requirements. Driveway Locations shall not interfere with the sidewalk accessible ramps. 23. All utilities shall be located underground.

WHISPERING WOODS

A TRACT OF LAND BEING PART OF U.S. SURVEY 1766 LOCATED IN TOWNSHIP 47 NORTH, RANGE 3 EAST, ST. CHARLES COUNTY, MISSOURI

IMPROVEMENT PLANS

ARKWA WILLOW DR -SPRINGWIND PROJECT SITE

LOCATION MAP

NOT TO SCALE

-542----

XXXX

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-0-0-

(NO) -----

LEGEND

CONTOURS

SPOT ELEVATIONS

CENTER LINE

BUILDINGS, ETC.

TREE LINE

FENCE

STORM SEWERS

SANITARY SEWERS

CATCH BASIN

AREA INLET

GRATED INLET

DOUBLE CURB INLET

STORM MANHOLE

SANITARY MANHOLE

FLARED END SECTION

CLEANOUT

LATERAL CONNECTION

UTILITY OR POWER POLE

FIRE HYDRANT

TEST HOLE

PAVEMENT

GAS MAIN & SIZE

WATER MAIN & SIZE

TELEPHONE

FLOW LINE

TO BE REMOVED

TO BE REMOVED & RELOCATED/REPLACED

SWALE

LIGHT STANDARD

STREET SIGN

PARKING STALLS

ELECTRIC (U) UNDERGROUND - (E) -

ELECTRIC (D) OVERHEAD (OHW)

(TC)

P.S.

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EXISTING

542

PC - BASE

## INDEX OF SHEETS

2-4

12-14

19-21

22

23

25-27

TCP

WD-1

COVER SHEET SITE PLANS GRADING PLANS STREET PROFILES SANITARY SEWER PROFILES STORM SEWER PROFILES DRAINAGE AREA MAPS HYDRAULIC CALCULATIONS **OUTFALL STRUCTURE DETAILS DETENTION POND SECTIONS** WATER DISTRIBUTION PLAN WARPING DETAILS SILTATION CONTROL DETAILS TRAFFIC CONTROL PLAN CONSTRUCTION DETAILS CD1 - CD6 WATER DETAILS RETAINING WALL DETAILS RW1-RW2 LANDSCAPE PLAN

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FLOOD PLAIN NOTE:

ACCORDING TO THE FLOOD INSURANCE RATE MAP OF THE COUNTY OF ST. CHARLES, MISSOURI, UNINCORPORATED AREAS (COMMUNITY PANEL NUMBER 29183C0237 E DATED AUGUST 2, 1996), A PORTION OF THIS PROPERTY LIES WITH ZONE AE, ZONE AE IS DEFINED AS AN AREA OF 100 YEAR FLOOD HAZARD, IN WHICH BASE FLOOD ELEVATIONS HAVE BEEN DETERMINED.

TREE ORDINANCE Min. Tree retention = 20% @ 20% = 5.78 AC Required Existing trees = 28.9 ac.

Trees removed = 24.6 ac. Trees saved = 4.30 acres Trees required = 15 trees per ocre, (28.9)(.20) = 5.78 oc. -4.30 = 1.48 oc. 15 trees X 1.48 ac. = 22 trees required

Trees proposed = 27 trees (min. 2" caliper, 8' height) hardwood 27 trees proposed > 22\_trees required Compiled with Ordinance

1 tree shall be provided per every lot (single frontage) with multiple frontage lots having one tree on each street on which the lot has frontage. All street trees shall be located within the right-of-way as directed by Section 4 00.420 of the O'Fallon code.

TOTAL SITE AREA:

Southwest corner of front of curb inlet on East side of relocated Bryan Road at approximate Station 31+00 Elevation: 596.60 per topographic survey for QuikTrip (FLAVAN TRACT "C") as prepared by GBA, Inc. Aug. 6, 1997. Note: B.M. Elevation based on USGS datum.

George J. Gower, L.S.

SEWER CONSTRUCTION NOTES

1. All storm and sanitary sewer construction methods to conform to latest standards and specifications of the applicable codes and shall conform to all appropriate City of O'Falion standards. 2. After all sewers and appurtenances are completed, inspected and accepted, the contractor will be permitted to connect the sewer extension into the existing system, in the presence of an inspector

 Drainage pipe shall be reinforced concrete class III except as noted on plans. 4. Jointing material for Poly Vinyl Chloride (PVC) Sanitary Sewers shall conform to ASTM Specification D-3212. All PVC pipe shall conform to ASTM D-3034, Type PSM with a SDR rating of

5. Manhale frames and covers shall be standard frames and covers as approved by the governing

6. Trenches under existing pavement and under areas to be paved shall be backfilled with 3/4" minus crushed limestone and compacted to 90% of the maximum dry density as determined by the

7. In all areas where sewer and appurtenances are to be constructed in filled ground, the fill will be placed to approximate finish grade and compacted to 90% of maximum dry density as determined by the modified proctor to the excavating and installing pipe.

8. The sewer contractor may construct the building sewer laterals in conjunction with the sanitary main, trunk or lateral sewers, within development, provided that the building sewer lateral terminates five (5) feet, or more, outside the proposed, or existing building line or foundation wall. 9. All manhole and inlet tops built without elevations furnished by the engineer will be the responsibility of the Sewer Contractor. At the time of construction stakeout 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 company or job superintendent shall notify the engineer that stakes are needed and allow 48 hours for cuts. Tops of manholes, inlets, valve boxes, etc. shall conform to Finished Grade.

10. All standard street curb inlets to have front of inlet two feet (2.25 ) behind curb. All area inlets open 4 sides except as noted.

11. All sanitary building connections have been designed so that the minimum vertical distance from the low point of the finished floor to the flow line of a sanitary sewer at the corresponding building connection is not less than the diameter of the pipe plus a vertical distance of 2 1/2 feet. 12. All filled areas, including trench backfills, under buildings, proposed storm and sanitary sewer lines, and paved areas shall be placed in a maximum of 9" lifts and compacted to a minimum of 90 percent of maximum dry density as determined by the Modified AASHTO Compaction Test, ASTM D1557, unless otherwise recommended in the Soils Report for this project. Tests shall be taken at a maximum of 50 foot intervals along the route of the pipe, at a maximum of two foot vertically, and starting at the bottom of the fill and continuing through the fill to the top of the pipe at 6' intervals and laterally on each side the pipe for a distance equal to the depth of fill from the top

13. When P.V.C. pipe is used, appropriate rubber seal waterstop, as approved by the sewer district, shall be installed between PVC pipe and masonry (concrete & brick) structure.

14. It is the contractors responsibility to confirm the location of existing utilities and/or underground facilities by notifying utility companies prior to construction. 15. Gas, water and other underground utilities shall not conflict with the depth or horizontal location

of existing and proposed sanitary and storm sewers including building laterals. 16. All construction methods and materials used shall conform to current applicable standards.

17. Shop drawings are required for construction of non-standard reinforced concrete structures. 18. Face of curb inlets shall be flush with face of Vertical Curb when used. 19. All starm and sanitary trench backfills shall be water jetted.

20. All sanitary manhole tops shall be set 0.2" higher than the proposed ground except in pavement 21. All sanitary manholes shall have a 31 mil. thick coat tar pitch waterproofing

22. All sanitary service lines shall gave a 5" diameter for multi-family and a 4" diameter for single-family developments.

23. Manhole frame and cover shall be Clay and Balley No. 2008 or Neenah R-1736 or Deeter 1315

24. A drop of 0.2 feet is required through all sanitary & storm manholes and inlets. 25. The City of O'Fallon shall be notified at least 48 hours prior to construction of sanitary sewers

for coordination and inspection. 26. Brick shall not be used on manholes. 27. All exterior sanitary sever manholes shall be waterproofed on the exterior in accordance with Missouri Dept. of Natural Resources specifications 10 CRS-8.120(7)(E).

28. 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" of "minus" stone from springline of pipe to 6 inches above the top of pipe.

29. All pipes shall have positive drainage through manholes. 30. Sanitary sewers connections shall be as approved by the City of O'Failon Sewer District. 31. All single and double curb inlets shall have a 5/8" Ø trash bar centered in the inlet opening. 52. Only wye or "T" wye connections to sanitary sewer mains, approved by the City of O'Fallon will

Trust indentures shall be written to restrict the type of fencing installed on private property with frontage to Sonderen to vinyl fencing as reviewed and approved by the trustees of the subdivision.

A TRACT OF LAND BEING PART OF A TRACT OF LAND DESCRIBED IN A DEED TO FLORENCE LOEFFLER, AS TRUSTEE, RECORDED IN DEED BOOK 1384 PAGE 1090 OF THE ST. CHARLES COUNTY RECORDS AND BEING SITUATED IN U.S. SURVEY 1766, TOWNSHIP 47 NORTH, RANGE 3 EAST, ST. CHARLES COUNTY, MISSOURI, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A STONE FOUND FOR THE NORTHWEST CORNER OF WINDSONG PLAT ONE AS PER THE PLAT THEREOF RECORDED IN PLAT BOOK 29 PAGES 161-162 OF THE ST. CHARLES COUNTY RECORDS, SAID POINT ALSO BEING ON THE NORTH LINE OF U.S. SURVEY 1766; THENCE WITH THE WEST LINE OF MNDSONG PLAT ONE AND IT'S DIRECT PROLONGATION, SOUTH 22'21'39" EAST 2112.69 FEET TO A POINT ON THE WEST LINE OF MNDSONG PLAT FOUR AS PER THE PLAT THEREOF RECORDED IN PLAT BOOK 30 PAGES 395-396 OF THE ST. CHARLES COUNTY RECORDS, FROM SAID POINT A FOUND STONE BEARS SOUTH 22"21"39" EAST 391.63 FEET AND A FOUND IRON ROD BEARS SOUTH 63"52"58" EAST 2.26 FEET, SAID POINT ALSO BEING A POINT ON THE CENTERLINE OF BELLEAU CREEK ESTABLISHED PER TOPOGRAPHIC INFORMATION BY WALKER ASSOCIATES, INC. PROJECT NO. 02-3-40, FLY DATE OF 3-14-02; THENCE WITH SAID MEANDERING CENTERLINE THE FOLLOWING COURSES AND DISTANCES: NORTH 63'52'58" WEST 94.59 FEET TO A POINT; THENCE NORTH 88'01'00" WEST 43.36 FEET TO A POINT; THENCE SOUTH 29'06'59" WEST 51.31 FEET TO A POINT; THENCE SOUTH 68'39'36" WEST 50.43 FEET TO A POINT; THENCE NORTH 70'35'45" WEST 51.76 FEET TO A POINT; THENCE NORTH 35"06"35" WEST 169.63 FEET TO A POINT; THENCE NORTH 63"54"51" WEST 59.53 FEET TO A POINT; THENCE SOUTH 81'43'29" WEST 48.27 FEET TO A POINT; THENCE SOUTH 63'07'03" WEST 123.06 FEET TO A POINT; THENCE SOUTH 82'52'20" WEST 114.54 FEET TO A POINT; THENCE NORTH 58'00'11" WEST 67.19 FEET TO A POINT; THENCE NORTH 16'02'06" WEST 147.49 FEET TO A POINT; THENCE NORTH 27"38"28" WEST 103.88 FEET TO A POINT; THENCE NORTH 68"20"30" WEST 51.09 FEET TO A POINT; THENCE SOUTH 60'22'47" WEST 39.57 FEET TO A POINT; THENCE SOUTH 15'08'01" WEST 69.04 FEET TO A POINT; THENCE SOUTH 60'06'20" WEST 40.43 FEET TO A POINT; THENCE NORTH 61"29"58" WEST 137.76 FEET TO A POINT; THENCE NORTH 69"38"25" WEST 96.65 FEET TO A POINT; THENCE NORTH 15'12'14" WEST 46.53 FEET TO A POINT; THENCE NORTH 50'59'16" EAST 48.98 FEET TO A POINT; THENCE NORTH 87'32'48" EAST 60.66 FEET TO A POINT; THENCE NORTH 36"03"22" EAST 29.30 FEET TO A POINT; THENCE NORTH 18"59"45" WEST 103.68 FEET TO A POINT; THENCE NORTH 45'32'10" WEST 56.21 FEET TO A POINT; THENCE NORTH 79"19"39" WEST 163.68 FEET TO A POINT; THENCE NORTH 68'02'21" WEST 152.63 FEET TO A POINT ON THE EAST LINE OF A TRACT OF LAND DESCRIBED IN A DEED TO HARRISON AND DIXIE YEAKEY RECORDED IN DEED BOOK 2730 PAGE 70 OF THE ST. CHARLES COUNTY RECORDS; THENCE DEPARTING THE MEANDERING CENTERLINE, WITH THE EAST LINE OF SAID YEAKEY TRACT AND IT'S DIRECT PROLONGATION, NORTH 22"06'24" WEST 919.12 FEET TO THE AFORESAID NORTH LINE OF U.S. SURVEY 1766, SAID POINT ALSO BEING THE NORTHEAST CORNER OF BRAMBLETT HOLLOW AS PER THE PLAT THEREOF RECORDED IN PLAT BOOK 32 PAGES 342-343 OF THE ST. CHARLES COUNTY RECORDS AND ALSO BEING ON THE SOUTHERN LINE OF SPRING HILL PLAT TWO AS PER THE PLAT THEREOF RECORDED IN PLAT BOOK 32 PAGES 82-83 OF THE ST. CHARLES COUNTY RECORDS, FROM SAID POINT A FOUND IRON ROD BEARS SOUTH 58'33'58" WEST 0.13 FEET AND A FOUND STONE BEARS SOUTH 04'55'57" WEST 2.04 FEET; THENCE WITH THE SAID SOUTHERN LINE AND IT'S DIRECT PROLONGATION, NORTH 67"19"09" EAST 1060.50 FEET TO THE POINT OF BEGINNING AND CONTAINING 1,729,644 SQUARE FEET (39.7071 ACRES), MORE OR LESS, PER A BOUNDARY SURVEY BY THE STERLING COMPANY DURING THE MONTH OF FEBRUARY, 2003 AND BEING SUBJECT TO THE FLUCTUATION OF THE CENTERLINE OF BELLEAU CREEK BY MEANS OF ACCRETION AND/OR EROSION.



03 | 02 | DIGITAL FILE LOCATION SERVER-STERLING-Z