

**EQUUS BEDS GROUNDWATER MANAGEMENT DISTRICT NO. 2
GROUNDWATER QUALITY PLANNING STATEMENT**

**PRESENTED TO THE
METROPOLITAN AREA PLANNING DEPARTMENT**

**CONCERNING
CASE NO. SUB 2002-18 – SECOND ADDITION TO BENTLEY FARMS**

February 28, 2002

Prepared by Michael T. Dealy L.G., Manager
Equus Beds Groundwater Management District No. 2

SITE LOCATION

The Bentley Farms 2nd Addition is described as a 100 acre tract located in the Northeast quarter of Section 19, Township 25 South, Range 1 West, Sedgwick County. It is located about 2.5 miles southeast of the corporate limits for the City of Bentley and 0.5 mile from a City of Wichita public water supply well. The site is within the boundaries and jurisdiction of the Equus Beds Groundwater Management District and overlies a portion of the Equus Beds aquifer.

The site has been designated a sensitive groundwater area by the Kansas Corporation Commission rule and regulation K.A.R. 82-3-600, Table III.

BACKGROUND INFORMATION

The Equus Beds Groundwater Management District No. 2 was contacted by the Wichita-Sedgwick County Metropolitan Area Planning Department February 27, 2002, requesting the District to review and comment on the development of the plat. The request concerns the preliminary plat for the Bentley Farms 2nd Addition before the Subdivision Committee. The owner/subdivider is James Roach, Bentley Farms, LLC, 5733 S St. Clair, Wichita, Kansas, 67204.

The Equus Beds Groundwater Management District No. 2 has: 1) reviewed the preliminary plat for the Bentley Farms 2nd Addition, 2) the Metropolitan Area Planning Department staff report dated February 28, 2002, for Bentley Farms 2nd Addition and, 3) reviewed the Equus Beds aquifer management program and other published reports, and 4) reviewed published and unpublished basic hydrologic and geologic data in the preparation of this document for the Wichita-Sedgwick County Metropolitan Area Planning Department.

The planned subdivision consists of 42 residential lots with lot area ranging from two acre to four acre for single-family dwellings. Drinking water and waste disposal systems for each lot will consist of small capacity domestic water well and on-site septic systems consisting of a septic tank and a lateral field.

The volume of wastewater discharged by a septic tank system from a typical household ranges from 40 gallons per day per person to 45 gallons per day per person (U.S.

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Water Quality Planning Statement to the Wichita-Sedgwick County Metropolitan Area Planning Department
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Environmental Protection Agency, 1977). Assuming the following: a) that all 42 subdivision lots are developed, b) the average household consists of 4 persons and c) septic tanks and laterals are installed for waste disposal; the annual volume of effluent discharged from the septic tanks and laterals to the unsaturated material above the water table of the Equus Beds aquifer ranged from 2,452,800 gallons to 2,759,400 gallons. This amount is equal to filling a football field with waste effluent to a depth of nearly 8.5 feet annually.

The effluent that passes through the septic tank and laterals and the unsaturated soil represent a concern relative to groundwater quality contamination. Based on previous studies (Carter and Knox, 1985) of septic tank influent; the average domestic wastewater contains 50 mg/L Total Nitrogen, 12 mg/L Ammonia, 30,000 MPN/100ml Fecal bacterial and 32 - 7,000 PFU/1 Enteric virus.

Data also indicate that septic tank effluent contains fecal coliform bacteria, certain virus and nitrates which are a groundwater pollution concern. Additionally, there have been several reported cases of organic compounds from household cleaning products passing through septic systems and contaminating groundwater (U. S. Environmental Protection Agency, 1980).

Soils with a high infiltration rate can be rapidly overloaded with organic and inorganic chemicals and micro-organisms, thus allowing rapid movement of contaminants from the laterals through the unsaturated soil material to the underlying groundwater (Carter and Knox, 1985). This type of septic system failure is largely overlooked or ignored until nearby water wells are contaminated.

SURFACE TOPOGRAPHY AND SOIL

Surface elevation at the proposed site ranges from 1370 to 1374 feet above mean sea level. The land surface is nearly level, except for southwest portion of the site. Surface drainage is predominantly to the southeast.

The predominant soil association at the site is classified as Naron-Farnum-Carwile consisting of fine sand loam to loam. It consists of deep, nearly level, well-drained soils having loamy subsoil. Soil permeability or infiltration rate ranges from 0.2 to 20.0 inches per hour increasing with depth.

HYDROGEOLOGY

The proposed site overlies a portion of the unconsolidated freshwater aquifer known as the Equus Beds aquifer. The aquifer is the principal source of freshwater for the site area as well as for a four county area in south-central Kansas.

Lithologic data collected from groundwater monitoring site EB 202 located about 1.5 mile west of the site in the Northwest quarter of the Northwest quarter of the Northwest quarter of Section 24, Township 25 south, Range 2 west, describe the unsaturated zone above the aquifer's water-table as silty soil to a depth of two feet, fine-grained sand to a depth of eight

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feet, medium to coarse-grained sand to a depth of 10 feet and coarse-grained sand and gravel to the water-table. Materials in the unsaturated zone have a high permeability ranging from 10 to 1,000 gallons per day per foot squared for fine sand, 100 to 1,000 gal. per day/ft² for medium sand and 100 to 10,000 gal. per day/ft² for coarse sand and gravel.

Water-level data collected from groundwater monitoring well EB 202-A show the water level is shallow and averaged 14.4 feet below land surface for the period from December 1986 to January 2001. The water level ranged from a low of 19.4 feet below land surface July 1991 to a high of 8.9 feet below land surface January 2001.

The average saturated thickness of the aquifer is 176 feet thick. Depth to bedrock (bottom of the aquifer) is 190 feet below land surface. The site overlies the northern flank of the Arkansas River Palo-bedrock channel having an axis trending northwest to southeast. Data indicate that the water table slope and groundwater movement is to the southeast.

Groundwater development in the area consists of small capacity domestic (household) use. Based on the U. S. Geological Survey 7.5 minute series topographic map for the site, there are numerous water wells, including irrigation, domestic and municipal wells, located within 1/2 mile of the proposed subdivision. Located about 0.5 mile northeast is a City of Wichita public water supply well.

The aquifer maximum pumpage allowable within the 2-mile radius area of consideration is 4,021 acre-feet per year. Existing groundwater appropriations or pumpage within the 2-mile radius around the proposed addition exceed the pumpage allowable by over 4,000 acre-feet per year. Based on the region average per capita usage of 113 gallons, it is projected that the 42 domestic wells in the 100 acre addition will annually withdraw nearly 7,000,000 gallons.

Inorganic water quality data collected from groundwater monitoring site EB 202 show nitrate-nitrogen concentrations at a depth of 55 feet to 65 feet exceeded the maximum concentration level of 10.0 mg/L for drinking water established by the U.S. Environmental Protection Agency's. Nitrate-nitrogen concentrations for the period from December 1986 to July 1990 ranged from low of 14.0 mg/L to high of 17.4 mg/L. Inorganic water quality data at a depth of 133 feet to 143 and from 180 feet to 190 feet indicate groundwater is suitable for most uses.

FINDINGS

Based on the case review the following findings were made:

1. The Equus Beds Groundwater Management District No. 2 was contacted by the Wichita-Sedgwick County Metropolitan Area Planning Department February 27, 2002, requesting the District review and comment on the preliminary plat for the Bentley Farms 2nd Addition.
2. The Bentley Farms 2nd Addition is described as a 100 acre tract located in the Northeast quarter of Section 19, Township 25 South, Range 1 West, Sedgwick County and is located about 2.5 miles southeast of the corporate limits for the City of Bentley.

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3. The planned addition will consist of 42 residential lots with lot area ranging from two acres to four acres for single-family dwellings.
4. The drinking water and waste disposal systems will consist of a small capacity domestic well and a septic tank and laterals installed on each lot.
5. The proposed subdivision overlies a portion of the unconsolidated freshwater aquifer known as the Equus Beds aquifer. The aquifer is the principal source of freshwater for the site area as well as for a four county area in south-central Kansas, including the City of Wichita and adjacent domestic well owners.
6. The site is within the boundaries and jurisdiction of the Equus Beds Groundwater Management District.
7. Based on the region average per capita usage of 113 gallons, it is projected that the 42 domestic wells in the 100 acre addition will annually withdraw approximately 7,000,000 gallons.
8. Existing groundwater appropriations or pumpage within the 2-mile radius area around the proposed addition exceed the maximum pumpage allowable for the aquifer by 4,000 acre-feet per year.
9. The area overlying the Equus Beds aquifer has been designated a sensitive groundwater area by the Kansas Corporation Commission because of hydrogeologic, climatic, and soil conditions.
10. The predominant soil at the site consists of loam and fine sandy loam having a high infiltration rate ranging from 0.2 to 20.0 inches per hour.
11. The unsaturated zone immediately above the water table at groundwater monitoring site EB 202 consists of unconsolidated deposits of fine to coarse sand and gravel.
12. Materials at the monitoring site in the unsaturated zone have a high permeability ranging from 10 gal per day/ft² up to 10,000 gal per day/ft².
13. Monitoring site data show depth to water is shallow and averaged 14.4 feet below land surface over a 15-year period. The water level ranged from a low of 19.4 feet below land surface July 1991 to a high of 8.9 feet below land surface January 2001.
14. The calculated volume of effluent discharged from the 42 subdivision septic tanks and laterals to the unsaturated material above the water table of the Equus Beds aquifer ranged from 2,452,800 gallons to 2,759,400 gallons annually.
15. Inorganic water quality data collected from groundwater monitoring site EB 202 located near the proposed addition show nitrate-nitrogen concentrations at a depth of 55 feet to 65 feet exceed maximum concentration level of 10.0 mg/L for drinking water established by the U.S. Environmental Protection Agency.

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16. Site soils have a high infiltration rate that can be rapidly overloaded with organic and inorganic chemicals and microorganisms, thus allowing rapid movement of contaminants from the laterals through the unsaturated soil material to the underlying Equus Beds aquifer.
17. Rapid overloading in this soil type leads to a septic system failure, which remains undetected until nearby water wells are contaminated.

RECOMMENDATIONS

Based on the case findings of the groundwater management district, hydrologic and geologic data and the information provided by Wichita-Sedgwick County Metropolitan Area Planning Department, the Equus Beds Groundwater Management District recommends the following:

1. Prohibit the use of septic tank and lateral systems for disposal of the proposed addition's septic waste.
2. To eliminate the risk of septic waste contamination to the Equus Beds aquifer and to area water wells, either:
 - a) connect to the existing public sewer treatment system located within 2.5 miles of the addition, or
 - b) properly install a community waste treatment system in the Bentley Farms 2nd Addition to properly treat and dispose of the addition's septic waste stream.
3. Prohibit the use of individual domestic water wells for the proposed addition's water supply needs.
4. To prevent over-development of the Equus Beds aquifer and to insure the residents of Bentley Farms 2nd Addition have a safe drinking water supply, connect to a nearby public water supply system.

SELECTED REFERENCES

Canter, Larry W., and Knox, Robert C., *Septic Tank System Effects on Groundwater Quality*, 1985, Lewis Publishers, pp. 333

U.S. Environmental Protection Agency, *The Report to Congress: Waste Disposal Practices and Their Effects on Ground Water*, EPA 570/9-77-001, June 1977, Washington, D.C., pp. 294-321

U.S. Environmental Protection Agency, *Planning Workshop to Develop Recommendations for a Ground Water Protection Strategy, Sections I, II and III*, May 1980, Washington, D.C.

STAFF REPORT
(PRELIMINARY PLAT)

CASE NUMBER: SUB 2002-18 -- SECOND ADDITION TO BENTLEY FARMS

OWNER/APPLICANT: Bentley Farms, L.L.C.; Attn: James Roach, 5733 S. St. Clair,
Wichita, KS 67204

SURVEYOR/ENGINEER: A to Z Land Surveying, Attn: Kevin Wayne Noll, 795 East Beeson,
Dodge City, KS 67801

LOCATION: West side of 103rd St. West, South of 101st St. North

SITE SIZE: 100 Acres

NUMBER OF LOTS

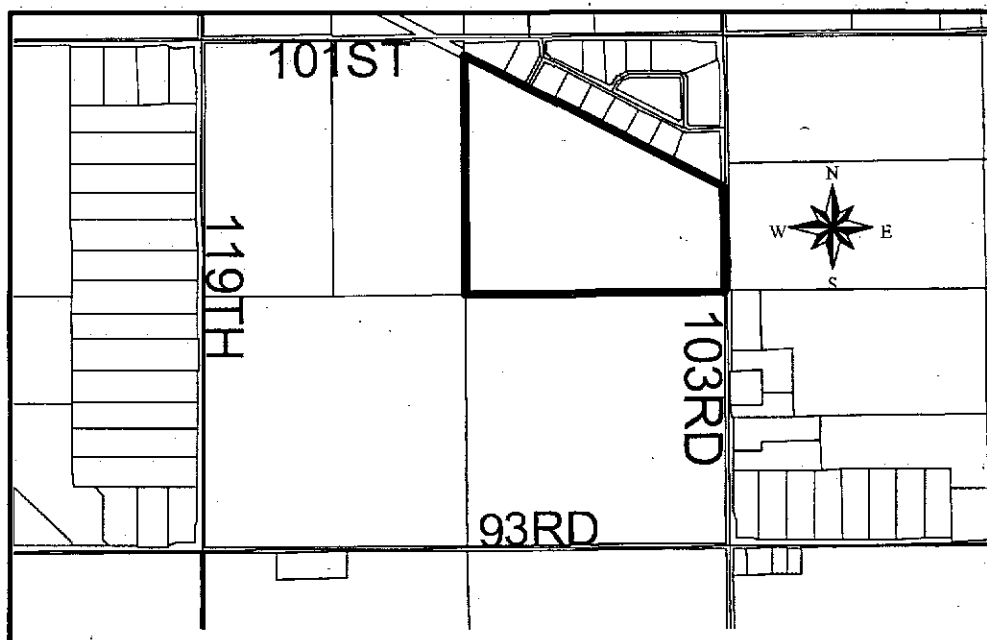
Residential:	42
Office:	
Commercial:	
Industrial:	
Total:	<u>42</u>

MINIMUM LOT AREA: 2 Acres

CURRENT ZONING: RR, Rural Residential

PROPOSED ZONING: Same

VICINITY MAP



NOTE: This site is located in the County in an area designated as "rural" by the 1999 Update to the Wichita-Sedgwick County Comprehensive Plan.

Planning Staff recommends approval of the plat.

STAFF COMMENTS:

- A. This site is located within a half-mile radius of a City of Wichita Community wells. The applicant is advised that the City Water and Sewer Department has expressed concerns in the past regarding groundwater contamination from septic tanks in these areas.
- B. Since sanitary sewer is unavailable to serve this property, the applicant shall contact County Code Enforcement to find out what tests may be necessary and what standards are to be met for approval of on-site sewerage facilities. A memorandum shall be obtained specifying approval. ~~Due to the size of the platted lots, approval will be needed for the use of septic systems.~~
on-site
- C. If improvements are guaranteed by petition, a notarized certificate listing the petitions shall be submitted to the Planning Department for recording.
- D. County Engineering needs to comment on the status of the applicant's drainage concept. **The drainage concept needs to identify drainage outfall and demonstrate that adequate positive drainage can be achieved. A drainage concept and master lot grading plan is needed.**
- E. County Engineering needs to comment on the need for access controls along 103rd St. West. The final plat shall reference the dedication of access controls in the plat's text. **County Engineering has requested complete access control along the plat's frontage to 103rd St West except for one 40-ft joint access opening to lots 3 and 5, Block 1.**
- F. The applicant shall guarantee the installation of the proposed streets to the suburban street standard.
- G. The Applicant should provide a 70-ft contingent dedication of street right-of-way extending to the west and south lines of the plat in order to provide potential street connection to adjoining properties. On the final plat, the contingent dedication of right-of-way needs to be referenced in the plat's text.
- H. The lot numbers in each block should be revised to include consecutively numbered adjoining lots.
- I. In accordance with the Subdivision regulations for suburban subdivisions, the two turnarounds need to be increased to a 75-ft property line radius.
- J. The Applicant is advised that if platted, the building setbacks may be reduced to 35-ft from the section line roads and 30 feet from the interior streets.
- K. Lots 5 and 6, Block 1, Lots 2 and 9, Block 2, and Lots 9 and 15, Block 3 do not conform with the 200-ft lot width standard which is measured at the building setback line. An increase in the distance of the building setback from the road would meet the standard.
- L. Lot 2, Block 2, and Lots 9 and 15, Block 3 do not meet the 100-ft lot frontage requirement.

- M. The County Fire Department/GIS needs to comment on the plat's street names. County Fire Department/GIS request a new street name for the east-west Chinook. GIS recommends "W 98th St N" and "W 98th Ct N" for the cul-de-sac.
- N. The Applicant is reminded that a platting binder is required with the final plat. Approval of this plat will be subject to submittal of this binder and any relevant conditions found by such a review.
- O. The plattor's text on the final plat shall reference the pedestrian/equestrian easement as being dedicated to the public and state that fences, barriers or other man-made obstructions are not permitted within the easement.
- P. The plattor's text shall include language that a drainage plan has been developed for the plat and that all drainage easements, rights-of-way, or reserves shall remain at established grades or as modified with the approval of the applicable City or County Engineer, and unobstructed to allow for the conveyance of stormwater.
- Q. The applicant shall install or guarantee the installation of all utilities and facilities which are applicable and described in Article 8 of the MAPC Subdivision Regulations. (Water service and fire hydrants required by Article 8 for fire protection shall be as per the direction and approval of the Chief of the Fire Department.)
- R. The applicant's engineer is advised that the Register of Deeds is requiring the name(s) of the notary public, who acknowledges the signatures on this plat, to be printed beneath the notary's signature.
- S. To receive mail delivery without delay, and to avoid unnecessary expense, the applicant is advised of the necessity to meet with the U.S. Postal Service Growth Management Coordinator (Phone 316-946-4556) prior to development of the plat so that the type of delivery, and the tentative mailbox locations can be determined.
- T. The applicant is advised that various State and Federal requirements (specifically but not limited to the Army Corps of Engineers, Kanopolis Project Office, Rt. 1, Box 317, Valley Center, KS 67147) for the control of soil and wind erosion and the protection of wetlands may impact how this site can be developed. It is the applicant's responsibility to contact all appropriate agencies to determine any such requirements.
- U. The owner of the subdivision should be aware of the fact that the development of any subdivision greater than five (5) acres in size may require an NPDES Storm Water Discharge Permit from the Kansas Department of Health and Environment in Topeka. Further, on all construction sites, the City of Wichita requires that best management practices be used to reduce pollutant loadings in storm water runoffs.
- V. Perimeter closure computations shall be submitted with the final plat tracing.
- W. Recording of the plat within thirty (30) days after approval by the City Council and/or County Commission.
- X. The representatives from the utility companies should be prepared to comment on the need for any additional utility easements to be platted on this property.

SUB 2002-18 -- Preliminary Plat of SECOND ADDITION TO BENTLEY FARMS
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- Y. The applicant is reminded that a disk shall be submitted with the final plat tracing to the Planning Department detailing this plat in digital format in AutoCAD. This will be used by the City and County GIS Department.

Strahl, Neil

From: Krout, Marvin
Sent: Thursday, February 28, 2002 12:01 PM
To: Strahl, Neil
Cc: Miller, Dale
Subject: Bentley Farms 2nd Addition

Sensitivity: Private

Please submit this recommendation to the Subdivision Committee regarding the proposed preliminary plat:

In recent months, we have received two zoning requests and this plat for 100 acres on tracts located in the Equus Beds near Bentley. The total number of lots proposed and the potential cumulative impacts of these requests has led us to focus more closely on what would be appropriate development in this area. MAPD has several concerns with these projects, including the plat on your agenda today:

- The Equus Beds is a significant water supply for individuals in this area and others, like the City of Wichita, who have water rights established here. It is also very sensitive to potential pollution because of its sandy soils and high groundwater. Statements in the adopted Comprehensive Plan and in the purpose and intent section of the Subdivision Regulations point to the need to protect sensitive areas like this.
- Standard septic tank/lateral field treatment of sewage, although it may meet the current standards of the County Sanitation Code, have great potential for causing groundwater pollution in this area.
- "Alternative sewage treatment systems" have the potential to reduce pollution levels compared to standard systems, but they are untried in this local area, these systems require more maintenance/monitoring than standard systems, and they reduce but do not eliminate pollutants. Because of this, monitoring of groundwater and some guarantee of funds in case of pollution requiring cleanup are warranted.
- A premise of the alternative sewer systems is that smaller lots will reduce the consumption of agricultural land in the county. However, this premise will need to be proven through monitoring. There is a good possibility that many consumers will continue to prefer to buy larger lots in rural area, and that at least some of the market demand for these smaller lot rural additions will come at the expense of the growth now experienced by most of the cities in Sedgwick County. Unlike other counties that have utilized the technology of alternative sewage systems because they have no other alternative than the standard individual lot systems, Sedgwick County contains many municipalities that have invested in utility infrastructure to support anticipated growth and its additional tax base. Any significant reduction of new housing construction in these cities as a result of a shift to the new rural subdivisions will cause fiscal distress. And the combination of large lot and smaller lot additions in the rural areas may actually increase instead of decrease the consumption of agricultural land.
- The smaller lots enabled when lagoons are not required will mean more new homeowners digging individual wells in this area. Two problems relating to this are: 1) some of the water in this area is already very high in nitrates and not suitable for individual wells, and 2) the groundwater rights in this area are already fully allocated, which means that the additional demand of individual homeowner wells in these rural additions, which are permitted through a loophole in the state law, will reduce the water that is available to the current owners of these rights -- which includes the Wichita Water Utility.
- Large additions in rural areas with smaller lots will have other impacts on community facilities and services in this area. The additional traffic from this one addition of 42 lots will likely pass the threshold that allows unpaved streets to be reasonably maintained in rural areas, and the County will need to pave and then continue to maintain 103rd Street West.

These concerns deserve a thorough review by all stakeholders in the County, including elected officials of the county, the cities, and township boards, the local farm community, Equus Beds Management District, local builders and developers, and the farming community. The County Commission has just begun a discussion on alternative sewage systems. But in the meantime, the Subdivision Committee and MAPC are being asked to act on this plat. Based on these concerns, MAPD recommends the following additional requirements for the Bentley Farms 2nd Addition:

1. No more than 20 buildable lots be created on the 100 acres, whatever the size of the individual lots (e.g. with 2 acre lots, about half of this land would be reserved on the plat as permanent open space).
2. Sewage treatment be of an "alternative" type approved by the County Public Works and Code Enforcement offices.

3. The developer should establish a groundwater monitoring system in advance of the development, develop baseline readings, and maintain the monitoring system for a period beyond the build-out of the addition.
4. The developer should submit a financial guarantee, to be held for an period beyond the build-out of the addition, of an amount that is determined to be adequate to remediate groundwater pollution that may occur from operational failure of the sewage system(s).
5. Water quality should be tested by the developer prior to the approval of this plat to ensure that it is drinkable.

STAFF REPORT

(REVISED PRELIMINARY PLAT, PRELIMINARY PLAT DEFERRED 3/14/02, 2/28/02)

CASE NUMBER: SUB 2002- 18 -- SECOND ADDITION TO BENTLEY FARMS

OWNER/APPLICANT: Bentley Farms, L.L.C., Attn: James Roach, 5733 S. St. Clair,
Wichita, KS 67204

SURVEYOR/ENGINEER: A to Z Land Surveying, Attn: Kevin Wayne Noll, 795 East Beeson,
Dodge City, KS 67801

LOCATION: West side of 103rd St. West, South of 101st St. North

SITE SIZE: 100 Acres

NUMBER OF LOTS

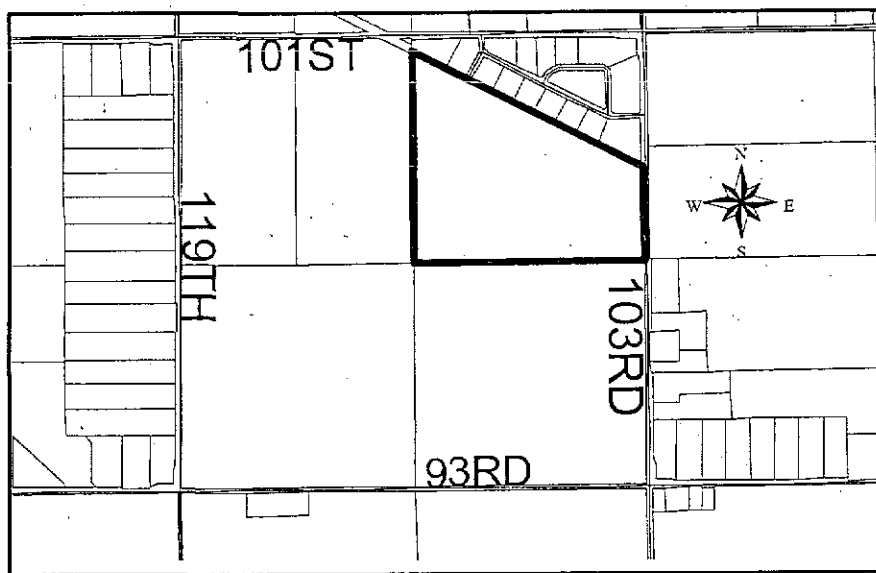
Residential:	21
Office:	
Commercial:	
Industrial:	
Total:	21

MINIMUM LOT AREA: 4.5 Acres

CURRENT ZONING: RR, Rural Residential

PROPOSED ZONING: Same

VICINITY MAP



SUB 2002-18 -- Revised Preliminary Plat of SECOND ADDITION TO BENTLEY FARMS
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NOTE: This site is located in the County in an area designated as "rural" by the 1999 Update to the Wichita-Sedgwick County Comprehensive Plan.

This revised plat has increased the minimum lot size to 4.5 acres, and revised the street layout. In lieu of septic systems, sewage lagoons are proposed.

Planning Staff recommends approval of the plat.

STAFF COMMENTS:

- A. This site is located over the Equus Beds aquifer. The **Equus Beds Management District** is currently reviewing the proposed use of sewage lagoons for the site.
- C. Since sanitary sewer is unavailable to serve this property, the applicant shall contact **County Code Enforcement** to find out what tests may be necessary and what standards are to be met for approval of on-site sewerage facilities. A memorandum shall be obtained specifying approval. **County Code Enforcement has approved the site for sewage lagoons.**
- D. If improvements are guaranteed by petition, a notarized certificate listing the petitions shall be submitted to the Planning Department for recording.
- E. **County Engineering** needs to comment on the status of the applicant's drainage concept. **The drainage concept needs to identify drainage outfall and demonstrate that adequate positive drainage can be achieved. A drainage concept and master lot grading plan is needed.**
- F. The final plat shall reference the dedication of access controls in the plat's text. The face of the plat shall indicate "complete access control" along Lot 7, Block 1 and Lot 14, Block 2.
- G. The applicant shall guarantee the installation of the proposed streets. The two Chinook Courts need to be built to 36 feet wide and 6 inches thick rock standard.
- H. The Applicant should provide a 70-ft contingent dedication of street right-of-way extending to the west and south lines of the plat in order to provide potential street connection to adjoining properties. On the final plat, the contingent dedication of right-of-way needs to be referenced in the plat's text.

The requested contingent dedications of right-of-way have been provided. **County Engineering** requests that the contingent street dedication extending to the south be relocated to a point between Lots 11 & 12 of Block 2 and that the contingent street dedication extending to the west be relocated between Lots 5 & 6 of Block 2.
- I. The Applicant is advised that if platted, the building setbacks may be reduced to 35-ft from the section line roads and 30 feet from the interior streets.
- J. Lots 6, 7, 11 and 12, Block 2 do not conform with the 200-ft lot width standard which is measured at the building setback line. A modification by the Subdivision Committee will need to be approved.
- K. **County Fire Department/GIS** needs to comment on the street names.

SUB 2002-18 -- Revised Preliminary Plat of SECOND ADDITION TO BENTLEY FARMS
April 25, 2002 - Page 3

- L. Access driveways to individual structures need to be inspected prior to final framing inspection in accordance with Fire Department access drive specifications.
- M. County Fire Department requires streets be built and installed prior to development of individual lots.
- N. The Applicant is reminded that a platting binder is required with the final plat. Approval of this plat will be subject to submittal of this binder and any relevant conditions found by such a review.
- O. The platator's text on the final plat shall reference the pedestrian/equestrian easement as being dedicated to the public and state that fences, barriers or other man-made obstructions are not permitted within the easement.
- P. The platator's text shall include language that a drainage plan has been developed for the plat and that all drainage easements, rights-of-way, or reserves shall remain at established grades or as modified with the approval of the applicable City or County Engineer, and unobstructed to allow for the conveyance of stormwater.
- Q. The applicant shall install or guarantee the installation of all utilities and facilities which are applicable and described in Article 8 of the MAPC Subdivision Regulations. (Water service and fire hydrants required by Article 8 for fire protection shall be as per the direction and approval of the Chief of the Fire Department.)
- R. The applicant's engineer is advised that the Register of Deeds is requiring the name(s) of the notary public, who acknowledges the signatures on this plat, to be printed beneath the notary's signature.
- S. To receive mail delivery without delay, and to avoid unnecessary expense, the applicant is advised of the necessity to meet with the U.S. Postal Service Growth Management Coordinator (Phone 316-946-4556) prior to development of the plat so that the type of delivery, and the tentative mailbox locations can be determined.
- T. The applicant is advised that various State and Federal requirements (specifically but not limited to the Army Corps of Engineers, Kanopolis Project Office, Rt. 1, Box 317, Valley Center, KS 67147) for the control of soil and wind erosion and the protection of wetlands may impact how this site can be developed. It is the applicant's responsibility to contact all appropriate agencies to determine any such requirements.
- U. The owner of the subdivision should be aware of the fact that the development of any subdivision greater than five (5) acres in size may require an NPDES Storm Water Discharge Permit from the Kansas Department of Health and Environment in Topeka. Further, on all construction sites, the City of Wichita requires that best management practices be used to reduce pollutant loadings in storm water runoffs.
- V. Perimeter closure computations shall be submitted with the final plat tracing.
- W. Recording of the plat within thirty (30) days after approval by the City Council and/or County Commission.

- X. The representatives from the utility companies should be prepared to comment on the need for any additional utility easements to be platted on this property.
- Y. The applicant is reminded that a disk shall be submitted with the final plat tracing to the Planning Department detailing this plat in digital format in AutoCAD. This will be used by the City and County GIS Department.

STAFF REPORT

(REVISED PRELIMINARY PLAT, PRELIMINARY PLAT DEFERRED 2/28/02)

CASE NUMBER: SUB 2002-18 -- SECOND ADDITION TO BENTLEY FARMS

OWNER/APPLICANT: Bentley Farms, L.L.C., Attn: James Roach, 5733 S. St. Clair,
Wichita, KS 67204

SURVEYOR/ENGINEER: A to Z Land Surveying, Attn: Kevin Wayne Noll, 795 East Beeson,
Dodge City, KS 67801

LOCATION: West side of 103rd St. West, South of 101st St. North

SITE SIZE: 100 Acres

NUMBER OF LOTS

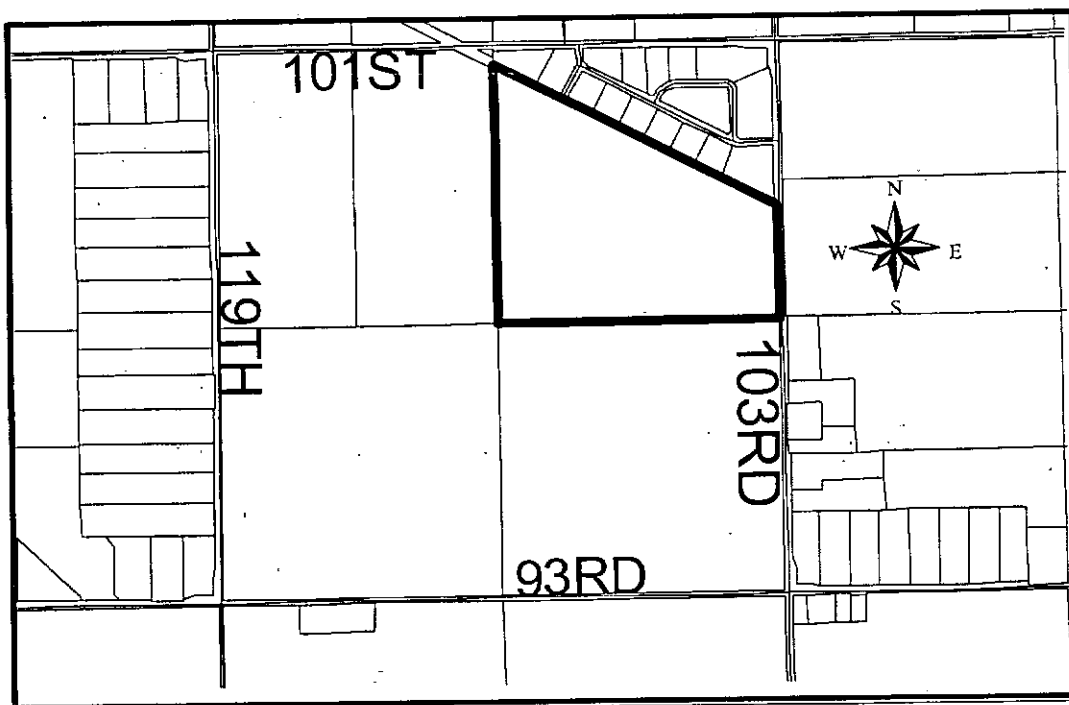
Residential:	42
Office:	
Commercial:	
Industrial:	
Total:	42

MINIMUM LOT AREA: 2 Acres

CURRENT ZONING: RR, Rural Residential

PROPOSED ZONING: Same

VICINITY MAP



NOTE: This site is located in the County in an area designated as "rural" by the 1999 Update to the Wichita-Sedgwick County Comprehensive Plan.

Planning Staff recommends approval of the plat.

STAFF COMMENTS:

- A. This site is located over the Equus Beds aquifer. The Equus Beds Management District has recommended the prohibition of septic tanks for this property and the installation of a community waste treatment system.
- B. This site is located within a half-mile radius of a City of Wichita Community wells. City Water and Sewer Department and MAPD recommend the following:
- 1) No more than 20 buildable lots be created on the 100 acres, whatever the size of the individual lots;
 - 2) Sewage treatment shall be of an "alternative" type approved by County Public Works and Code Enforcement Offices;
 - 3) The developer shall establish a groundwater monitoring system in advance of the development, develop baseline readings, and maintain the monitoring system for a period beyond the build-out of the addition.
 - 4) The developer shall submit a financial guarantee, to be held for a period beyond the build-out of the addition, of an amount that is determined to be adequate to remediate groundwater pollution that may occur from operational failure of the sewerage system(s).
 - 5) Water quality shall be tested by the developer prior to the approval of this plat to ensure that it is drinkable.
- C. Since sanitary sewer is unavailable to serve this property, the applicant shall contact County Code Enforcement to find out what tests may be necessary and what standards are to be met for approval of on-site sewerage facilities. A memorandum shall be obtained specifying approval.
- D. If improvements are guaranteed by petition, a notarized certificate listing the petitions shall be submitted to the Planning Department for recording.
- E. County Engineering needs to comment on the status of the applicant's drainage concept. ***The drainage concept needs to identify drainage outfall and demonstrate that adequate positive drainage can be achieved. A drainage concept and master lot grading plan is needed.***
- F. The final plat shall reference the dedication of access controls in the plat's text. ***County Engineering has requested complete access control along the plat's frontage to 103rd St West except for one 40-ft joint access opening to lots 3 and 5, Block 1.***

The applicant has proposed one 40-ft wide driveway located within a 70-ft joint access opening between Lots 3 and 5. The face of the plat shall indicate "complete access control" along appropriate segments of frontage along 103rd St. West.

SUB 2002-18 -- Revised Preliminary Plat of SECOND ADDITION TO BENTLEY FARMS
March 14, 2002 - Page 3

- G. The applicant shall guarantee the installation of the proposed streets to the suburban street standard.
- H. The Applicant should provide a 70-ft contingent dedication of street right-of-way extending to the west and south lines of the plat in order to provide potential street connection to adjoining properties. On the final plat, the contingent dedication of right-of-way needs to be referenced in the plat's text.

The requested contingent dedications of right-of-way has been provided.

- I. The Applicant is advised that if platted, the building setbacks may be reduced to 35-ft from the section line roads and 30 feet from the interior streets.
- J. Lots 2, Block 2, and Lot 13, Block 3 does not conform with the 200-ft lot width standard which is measured at the building setback line. A modification by the Subdivision Committee will need to be approved.
- K. The County Fire Department/GIS has approved the street names.
- L. The Applicant is reminded that a platting binder is required with the final plat. Approval of this plat will be subject to submittal of this binder and any relevant conditions found by such a review.
- M. The plat's text on the final plat shall reference the pedestrian/equestrian easement as being dedicated to the public and state that fences, barriers or other man-made obstructions are not permitted within the easement.
- N. The plat's text shall include language that a drainage plan has been developed for the plat and that all drainage easements, rights-of-way, or reserves shall remain at established grades or as modified with the approval of the applicable City or County Engineer, and unobstructed to allow for the conveyance of stormwater.
- O. The applicant shall install or guarantee the installation of all utilities and facilities which are applicable and described in Article 8 of the MAPC Subdivision Regulations. (Water service and fire hydrants required by Article 8 for fire protection shall be as per the direction and approval of the Chief of the Fire Department.)
- P. The applicant's engineer is advised that the Register of Deeds is requiring the name(s) of the notary public, who acknowledges the signatures on this plat, to be printed beneath the notary's signature.
- Q. To receive mail delivery without delay, and to avoid unnecessary expense, the applicant is advised of the necessity to meet with the U.S. Postal Service Growth Management Coordinator (Phone 316-946-4556) prior to development of the plat so that the type of delivery, and the tentative mailbox locations can be determined.
- R. The applicant is advised that various State and Federal requirements (specifically but not limited to the Army Corps of Engineers, Kanopolis Project Office, Rt. 1, Box 317, Valléy Center, KS 67147) for the control of soil and wind erosion and the protection of wetlands may impact how this site can be developed. It is the applicant's responsibility to contact all appropriate agencies to determine any such requirements.

- S. The owner of the subdivision should be aware of the fact that the development of any subdivision greater than five (5) acres in size may require an NPDES Storm Water Discharge Permit from the Kansas Department of Health and Environment in Topeka. Further, on all construction sites, the City of Wichita requires that best management practices be used to reduce pollutant loadings in storm water runoffs.
- T. Perimeter closure computations shall be submitted with the final plat tracing.
- U. Recording of the plat within thirty (30) days after approval by the City Council and/or County Commission.
- V. The representatives from the utility companies should be prepared to comment on the need for any additional utility easements to be platted on this property.
- W. The applicant is reminded that a disk shall be submitted with the final plat tracing to the Planning Department detailing this plat in digital format in AutoCAD. This will be used by the City and County GIS Department.

STAFF REPORT

(FINAL PLAT, REVISED PRELIMINARY PLAT APPROVED 4/25/02, PRELIMINARY PLAT DEFERRED 3/14/02, 2/28/02)

CASE NUMBER: SUB 2002-18 -- SECOND ADDITION TO BENTLEY FARMS

OWNER/APPLICANT: Bentley Farms, L.L.C., Attn: James Roach, 5733 S. St. Clair,
Wichita, KS 67204

SURVEYOR/ENGINEER: A to Z Land Surveying, Attn: Kevin Wayne Noll, 795 East Beeson,
Dodge City, KS 67801

LOCATION: West side of 103rd St. West, South of 101st-St. North

SITE SIZE: 100 acres

NUMBER OF LOTS

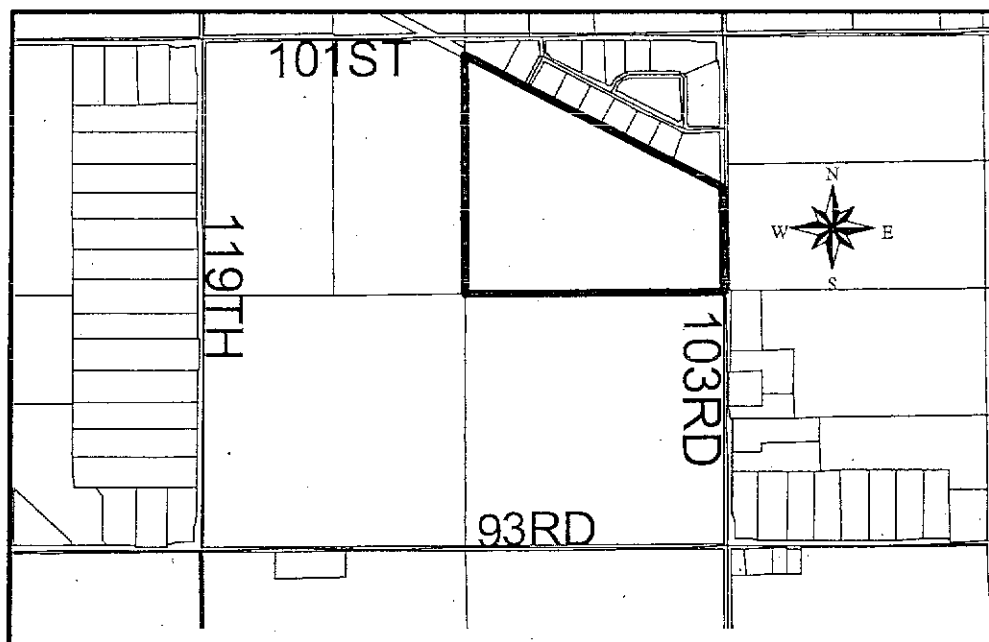
Residential:	21
Office:	
Commercial:	
Industrial:	
Total:	21

MINIMUM LOT AREA: 4.5 acres

CURRENT ZONING: RR, Rural Residential

PROPOSED ZONING: Same

VICINITY MAP



NOTE: This site is located in the County in an area designated as "rural" by the 1999 Update to the Wichita-Sedgwick County Comprehensive Plan.

Planning Staff recommends approval of the plat.

STAFF COMMENTS:

- A. This site is located over the Equus Beds aquifer. The Equus Beds Management District has approved the use of sewage lagoons for the site.
- B. Since sanitary sewer is unavailable to serve this property, the applicant shall contact **County Code Enforcement** to find out what tests may be necessary and what standards are to be met for approval of on-site sewerage facilities. A memorandum shall be obtained specifying approval. County Code Enforcement has approved the site for sewage lagoons.
- C. If improvements are guaranteed by petition, a notarized certificate listing the petitions shall be submitted to the Planning Department for recording.
- D. **County Engineering** needs to comment on the status of the applicant's drainage plan. The drainage plan has not been approved. An agreement with the property owner(s) to the west is needed verifying that they will continue to accept the water and not block the discharge.
- E. The applicant shall guarantee the installation of the proposed streets. The two Chinook Courts need to be built to 36 feet wide and 6 inches thick rock standard.

The Applicant is advised that although the streets are under construction, no street plans have been approved.
- F. On the final plat tracing, the contingent dedication of right-of-way needs to be referenced in the plat's text. The language should state that "the contingent street dedications are hereby contingently dedicated as street right-of-way to become effective upon the platting of any adjacent subdivision having a street connecting thereto. The costs of constructing said street, are to be borne by the person(s) or agency that owns said adjacent subdivision."
- G. The Applicant is advised that if platted, the building setbacks may be reduced to 35-ft from the section line roads and 30 feet from the interior streets.
- H. Lots 6, 7, 11 and 12, Block 2 do not conform with the 200-ft lot width standard which is measured at the building setback line. The Subdivision Committee has approved a modification contingent upon each lot conforming with the 100-ft frontage requirement.
- I. **County Fire Department/GIS** needs to comment on the street names. The street names are approved.
- J. The maintenance responsibility of the drainage detention easements needs to be noted in plat's text.
- K. Lot 6, Block 2 does not have a side yard utility easement.
- L. **County Surveying** has requested that all curves need central angles need to be shown.

- M. In the platlor's text and the register of deeds certificate "Book" needs changed to "Film".
- N. Utility easements should be continuous along the property lines. Several on this plat are discontinued at drainage and/or detention easements. The easements should be relocated to function properly.
- O. Chinook Court has angles for the street and the right of way. These should be redesigned to have radius bends.
- P. Access drives to any structures in excess of 150' from the edge of the roadway will need to be installed prior to final framing inspection preferably before the start of any above grade construction work. Such drive to be installed according to fire department specifications:
- 20' of drivable surface is provided the entire length of the access drive designed to withstand the weight of fire apparatus in inclement weather.
 - The surface will need to be an all weather material consisting of rock or gravel, ground asphalt, laid asphalt or concrete. It is to be applied a minimum of 4" in depth consistently over the entire width and length of the driving surface (gravel is prone to problems during extended periods of rain or snow and should be used with caution unless a good solid compacted base has been installed.).
 - The streets are to be installed in accordance with Sedgwick County roadway standards and be accepted by the county prior to individual lot development.
- Q. On the final plat tracing, the MAPC signature block needs to reference "Michael E. Lindebak, Acting Secretary".
- R. On the final plat, the MAPC signature block needs to reference "J.D. Michaelis, Chair".
- S. The signature line for the County Commissioners Chairman needs to reference "Ben Sciortino".
- T. The Applicant is reminded that a platting binder is required with the final plat. Approval of this plat will be subject to submittal of this binder and any relevant conditions found by such a review.
- U. The pedestrian/equestrian easement and tree easement should be platted as reserves. The final plat tracing shall state in the platlor's text the purposes of the proposed reserves as well as the ownership and maintenance responsibilities.
- V. Provisions shall be made for ownership and maintenance of the proposed reserves. The applicant shall either form a lot owners' association prior to recording the plat or shall submit a covenant stating when the association will be formed, when the reserves will be deeded to the association and who is to own and maintain the reserves prior to the association taking over those responsibilities.
- W. The platlor's text shall include language that a drainage plan has been developed for the plat and that all drainage easements, rights-of-way, or reserves shall remain at established grades or as modified with the approval of the applicable City or County Engineer, and unobstructed to allow for the conveyance of stormwater.

- X. The applicant shall install or guarantee the installation of all utilities and facilities which are applicable and described in Article 8 of the MAPC Subdivision Regulations. (Water service and fire hydrants required by Article 8 for fire protection shall be as per the direction and approval of the Chief of the Fire Department.)
- Y. The applicant's engineer is advised that the Register of Deeds is requiring the name(s) of the notary public, who acknowledges the signatures on this plat, to be printed beneath the notary's signature.
- Z. To receive mail delivery without delay, and to avoid unnecessary expense, the applicant is advised of the necessity to meet with the U.S. Postal Service Growth Management Coordinator (Phone 316-946-4556) prior to development of the plat so that the type of delivery, and the tentative mailbox locations can be determined.
- AA. The applicant is advised that various State and Federal requirements (specifically but not limited to the Army Corps of Engineers, Kanopolis Project Office, Rt. 1, Box 317, Valley Center, KS 67147) for the control of soil and wind erosion and the protection of wetlands may impact how this site can be developed. It is the applicant's responsibility to contact all appropriate agencies to determine any such requirements.
- BB. The owner of the subdivision should be aware of the fact that the development of any subdivision greater than five (5) acres in size may require an NPDES Storm Water Discharge Permit from the Kansas Department of Health and Environment in Topeka. Further, on all construction sites, the City of Wichita requires that best management practices be used to reduce pollutant loadings in storm water runoffs.
- CC. Perimeter closure computations shall be submitted with the final plat tracing.
- DD. Recording of the plat within thirty (30) days after approval by the City Council and/or County Commission.
- EE. The representatives from the utility companies should be prepared to comment on the need for any additional utility easements to be platted on this property.
- FF. The applicant is reminded that a disk shall be submitted with the final plat tracing to the Planning Department detailing this plat in digital format in AutoCAD. This will be used by the City and County GIS Department.