

Dan Summers  
489 Crescent Ridge  
Rolla, Missouri 65401

February 12, 2020

Patrick R. Zenner  
Development Services Manager  
Community Development Department  
City of Columbia  
701 E. Broadway  
Columbia, MO 65201

Re: Lot 10, Country Woods Plat No. 1

Dear Mr. Zenner:

My wife and I are the owners of Lot 10, Country Woods Subdivision, located at the end of Cherry Bark Court, a cul-de-sac. In your January 28, 2020 email to Caleb Colbert you requested documentation supporting the proposition that our residential lot warrants a different approach than the standard practice of the City when connection to the City sewer system is sought for development of a residential lot not within the City limits. To that end I offer the following in support of our request for utilizing the annexation agreement alternative under Policy Resolution 115-97A:

1. Plat 1 of Country Woods Subdivision, containing 25 lots, was recorded in January 1977. In the 1980s a second plat brought the total of Country Woods Subdivision to 60 lots. About 1990 this area was further expanded by the platting of an adjacent subdivision of 22 lots, known as Country Meadows. About this same time another subdivision of 22 lots, known as Hunter's Ridge, also was platted. Hunter's Ridge is adjacent to both Country Woods and Country Meadows. Currently there are approximately 100 houses built in the neighborhood (some building sites include a partial lot in addition to a full lot, resulting in fewer houses than platted lots).
2. The three subdivisions were at the time of platting located outside the City limits of Columbia. As best as I can determine, all but one of the lots in the three subdivisions remain outside the City limits. The exception is the lot at 3261 S Greenfield Court, which was adjacent to the City limits, and which was annexed into the City in 2013 or 2014, after the house was built.
3. Our lot is the last open lot in Country Woods Subdivision. It appears that it is also the last open lot in the three-subdivision neighborhood described in paragraph 1.
4. It further appears that all houses in the three subdivisions are connected to the City sewer system. This includes at least five houses that were built after 1997, after the adoption by the City of its Policy Resolution 115-97A: 3490 S Woods Edge Road (1999); 3081 W Picket Post Street (2000); 3261 S Greenfield Court (2013); 3181 S Country Woods Road (2015); and 3000 W Picket Post Street (2018).

5. According to Consolidated Water District No. 1, its 4 inch water main – with a flow of approximately 250 gallons per minute (GPM) – serves all of the properties in the three subdivisions described in paragraph 1. Therefore, it is obvious that the houses built in these subdivisions after 1997 were allowed to connect to the City sewer system without extending an 800 GPM water supply to their properties.
6. Direct annexation and previous City proposals which would have allowed our Lot to be connected to the City sewer system included certain conditions. Those conditions would have required us to provide an 800 GPM water main to serve our single lot. We also would have had to meet City requirements for fire hydrant spacing, a fire apparatus access road, sidewalks (of which there are none in Country Woods), and other City requirements. All of these requirements are unrelated to the provision of sewer service.
7. None of the approximately 100 houses already built in the neighborhood were required to meet the City provisions mentioned in the previous paragraph in order to be able to connect to the City sewer system. To require us, as a condition of connecting to the City sewers, to meet City requirements not imposed on the already built homes, including at least five homes built between 1999 and 2018, would be more than inequitable.
8. To demonstrate this inequity, enclosed is an analysis prepared by Jay Gebhardt of A Civil Group in February 2018, submitted to the County Health Department in support of a request to allow construction of an on-site wastewater system on our lot. The Gebhardt analysis shows that the cost differential between building in the County with an on-site system and building under City requirements for fire flow, hydrants, fire apparatus roads and sidewalks – none of which were required by the County for the 100 houses previously built in the three-subdivision neighborhood – would be \$107,370 (in 2018 dollars). As you may know, the County Health Department approved our request, subject to the County's permitting requirements for an on-site system. The County's conceptual approval of an on-site system for our lot was grounded, in part, on the imposition by the City of requirements not related to the provision of sewer service. Although an on-site system was approved, we understand and appreciate the City's position that connection to public sewer is the City's preferred approach. Thus, we are willing to pursue connection to public sewer using the annexation agreement alternative under Policy Resolution 115-97A.
9. Two items in the 2018 Gebhardt analysis need clarification. First, while the Water District main in the neighborhood is, in general, 4 inches, the water main serving the cul-de-sac on which our lot sets is a 2 inch main. This is consistent with the past and current practice of the Water District to reduce the size of a dead-end water main serving only a few homes. Secondly, the fire apparatus road that would be required by the City would need to support a 75,000 pound load, not 90,000 pounds, a difference that does not change the cost cited in the Gebhardt analysis.

My wife and I have no objection to executing an annexation agreement which requires annexing into the City after construction of our home, in order to receive City sewer service. Again, we understand that the City's preference is for a connection to public sewer. But it is

Mr. Zenner  
February 12, 2020  
Page 3

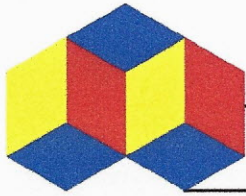
simply punitive and unfair to require one single house to meet requirements that were not imposed on the first 100 houses. All we are asking is our lot be treated the same as the other homes in the neighborhood. Thank you for your time and attention to our request.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Summers", with a stylized, flowing script.

Dan Summers

cc: Caleb Colbert



# A CIVIL GROUP

CIVIL ENGINEERING - PLANNING - SURVEYING

## Cost Benefit Analysis for Dan Summers & Sylvia Greer Lot 10, Country Woods Subdivision Plat No. 1 Sanitary Sewer

Prepared by: A Civil Group, LLC  
Jay Gebhardt, P.E., P.L.S.  
3401 Broadway Business Park ct. Suite 105  
Columbia, Mo 65203

Date: January 22, 2018

Property Location: The Summers/ Greer property is located at the South end of Cherry Bark Ct within Country Woods Subdivision. The legal description is Lot 10 of County Woods Plat No 1. This lot is currently not within the City of Columbia City Limits.

Zoning: The property is zoned Boone County R-S.

Existing Conditions: This lot is vacant and has not been built upon. (See attached aerial view) There is an existing City of Columbia sanitary sewer main that runs along Cherry Bark Court to within approximately 25 feet of this lot. Although the sewer terminates near the property, the City of Columbia Rules and regulations require the owner to annex the property into the City in order to tap into the sewer on their property.

Proposed Uses: The owners would like to build their personal home on the property.

Purpose of Cost Benefit Analysis: The purpose of this analysis is to determine whether connecting to the existing City of Columbia sanitary sewer or building an on-site sewer treatment system is the most practicable option for the property.

Facts:

Governing Code and Regulations:

- A. Chapter IV of the Boone County Health Departments regulations for Small On-site Wastewater Systems. Chapter IV, section 4.5.8 states "The administrative authority may deny an onsite wastewater system permit for any of the reasons enumerated in section 4.5.8.1 through 4.5.8.3. Section 4.5.8.3

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Section 4.5.8.3 "Denial Due to Location Within Reasonable Distance of Public Sanitary Sewer" states, "A small on-site wastewater system permit may be denied because the building lot upon which it is to be located is within a reasonable distance of a public sanitary sewer to which connection is practicable and is permitted by the governmental agency or utility owning or operating the sanitary sewer, ...The administrative authority shall consider all relevant factors in determining if a public sanitary sewer connection is practicable and within a reasonable distance, including, but not limited to, the topography of the lot and surrounding land, the cost of connection, the cost of connection relative to an engineered on-site system (including cost estimates for ongoing maintenance), the watershed the lot is located within, and any other relevant factor bearing on the public health..."

- B. The existing sewer main is owned and operated by the City of Columbia.
- C. Webster's dictionary defines practicable as:

Practicable

'praktəkəb(ə)l/

*adjective*

able to be done or put into practice successfully.

"the measures will be put into effect as soon as is reasonably practicable"

*synonyms:* realistic, feasible, possible, within the bounds/realms of possibility, viable, reasonable, sensible, workable, achievable; *informal* doable

"what we need is a practicable solution"

- D. There is a 1997 City of Columbia policy resolution that states that any property owner wishing to utilize the City's sanitary sewer must either; annex their property, or if the property is not contiguous to the City of Columbia's City Limits, they enter into an annexation agreement with the City of Columbia.
- E. This property is contiguous to the City of Columbia. If the property owners wish to connect to the City's sewer, they would be required to sign an annexation agreement with the City of Columbia and request annexation of their property.
- F. The owners and their representatives have met with the City of Columbia officials and have been told that the annexation agreement will contain a requirement of the owner to extend a City of Columbia water main to the property in order to provide the City of Columbia requirements for 800 gallons per minute fire flow within 500 feet of the home. There is an existing water district water main serving the property that does not provide the City's required 800 gallons per minute flow but rather 250 gallons per minute which is what is allowed in the County. The City Fire Department will also require the driveway proposed for the home to be capable of handling 90,000-pound fire truck and be 20 feet wide.

Effect of the Annexation Agreement: The annexation agreement would require the owner to construct, at their own cost, the 1,000-linear foot extension of a City water

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main that extends to the northwest corner of Country Woods Road and Old Ridge Road, to provide the City required fire flows. In order to do this the owner would be required to negotiate and purchase the necessary easements from the owners of land the extension would cross over. The other effects of annexation would be the construction of a driveway designed to hold a 90,000-pound firetruck, 20 foot wide driveway as well as a public sidewalk along the frontage of the lot. The City Permit Fees and Energy code measures for the building would also be required.

Background Summary of Costs Used in the Cost Benefit Analysis:

- Actual cost estimate from Emery Sapp and Sons, Inc. for the extension of the Watermain = \$80,000 and Bio-Guard, Inc. provided the cost for on-site treatment = \$21,500.
- Value of land for easements was estimated at \$0.58 per square foot
- Cost of sidewalk was estimated to be \$30 per linear foot.
- City of Columbia Worksheets were used to determine building, sewer tap and other building permit fees listed.
- Cost for Energy Code measures required within the City were taken from averages for size of the home being proposed
- City Sidewalk would be required along Cherry Bark Ct. and cost is an average for 5-foot sidewalk built in conjunction with home construction
- Annexation Fee and professional services are cost to date to negotiate the annexation of the property
- The present value discount rate is 2% per year (historical average)

Summary of Cost Benefit Analysis:

The governing regulations states: " A small on-site wastewater system permit may be denied because the building lot upon which it is located is within a reasonable distance of a public sanitary sewer to which connection is practicable and is permitted by the governmental agency or utility owning or operating the sanitary sewer, ....The administrative authority shall consider all relevant factors in determining if a public sanitary sewer connection is practicable and within a reasonable distance, including, but not limited to, the **topography** of the lot and surrounding land, **the cost of connection, the cost of connection relative to an engineered on-site system**( including cost estimates for ongoing maintenance), **the watershed** the lot is located within, and any **other relevant factor bearing on the public health** ... It shall be the responsibility of the person seeking a permit to investigate and demonstrate to the satisfaction of the administrative authority that no public sanitary sewer connection is available and or practicable under these criteria a condition of issuance of a permit." Relevant factors as listed below have each been considered:

**Topography:**

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There is no topographic reason that would prevent connection to the existing City Sanitary Sewer, although to achieve gravity flow into the City sewer main, the house must be situated further up slope and further from Cherry Bark Court, thereby increasing the cost of the driveway.

**Cost of Connection:**

The main difference between the two scenarios of on-site sewer and connection to the City sewer is the difference created by the City's proposed annexation agreement. This agreement would require expenditures more than 4 times the cost of an on-site system over a 16-year period. In Table A, the total net costs are \$29,665 for the on-site option. In Table B, the total net costs are \$137,036. This is the true cost to the owners if required to connect to the City of Columbia sewer due to the City requirements of extending the water main as well as the other City requirements.

**Cost of Connection Relative to an Engineered On-site System:**

The construction cost of connecting to the city Sewer is \$137,036 which is \$107,371 more than the onsite cost of \$29,665.

**Watershed:**

This property is within the Mill Creek watershed. This watershed has not been identified, as far as I am aware, as being on any sensitive watershed list or 303d listed waters. Lot 10 country Woods Plat No1 is a large lot property that has suitable locations for an on-site drip irrigation system. The soils are suitable for a drip irrigation on-site system with a loading rate of 0.05 gallons per sq. ft. per day. Due to the nature of the proposed on-site drip irrigation system, it would not pose a nuisance to the surrounding properties and would not harm the environment nor cause a health concern.

**Other Relevant Factors:**

This is the last undeveloped lot within Country Woods subdivision, in which development began in the late 1970s. All the homes in Country Wood Subdivision and the adjoining Country Meadows Subdivision were allowed to connect to the City of Columbia's sewer system without being required to upgrade the water flow serving those properties (the water district main serves all of these two subdivisions). In fact, at least two new homes in Country Meadows Subdivision have been allowed to connect to the City's sewer system since 2013 without a requirement to upgrade the water main service, including one built in 2015. The Boone County Fire District has served this existing neighborhood for over 40 years with the existing Fire protection provided by the existing water main serving the neighborhood. The City staff's annexation agreement requirements are not proportional to the impact to the City for one single family home.

It is my opinion that the requirements outlined in the annexation agreement create a significant taking of rights from the property and its owners. This creates a burden estimated at \$137,036 on the property that renders connection to the City sewer unfeasible and unpractical. While connection to the City sewer is possible, it certainly is not realistic or feasible, therefore it is not practicable. We believe we have met the burden required by the Health Departments Regulations to show that connection to the City of Columbia is not practicable. Due to these circumstances, which are not within the owners' control, we ask that an on-site sewer system be permitted for the future single-family home on Lot 10, Country Woods Subdivision Plat No 1.

In support of this request, please find spread sheet tables for the cost benefit for on-site and for connection to the City. I have also attached all other pertinent documentation referenced above.

If you have any questions please give me a call at 573-864-9811.

Sincerely,  
A Civil Group

Jay Gebhardt, PE, PLS

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**TABLE A**

**On-Site Sewer Scenario**

	2027	2028	2029	2030	2031	2032	2033	2034	
<b>Costs</b>									
Initial Construction Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Yearly Sewer Maintenance Agreement Cost	\$ 445.00	\$ 450.00	\$ 450.00	\$ 455.00	\$ 455.00	\$ 460.00	\$ 460.00	\$ 465.00	
Sewer Permit	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
BoCoMo Bldg Permit ( \$0.05 per Sq. Ft. x 5232 Sq.Ft.)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Yearly Electricity Expense	\$ 27.00	\$ 28.00	\$ 28.00	\$ 28.00	\$ 29.00	\$ 29.00	\$ 29.00	\$ 30.00	
Water Meter fee	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Total Costs (Future Value)</b>	\$ 472.00	\$ 478.00	\$ 478.00	\$ 483.00	\$ 484.00	\$ 489.00	\$ 489.00	\$ 495.00	\$ 29,791.60
<b>Total Costs (Present Value)</b>	\$ 463.65	\$ 468.63	\$ 467.71	\$ 471.68	\$ 471.73	\$ 475.68	\$ 474.76	\$ 479.65	\$ 29,664.89
<b>Benefits</b>									
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Total Benefits (Future Value)</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Total Benefits (Present Value)</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Present Value Discout Rate</b>									
PV Denominator	1.018	1.020	1.022	1.024	1.026	1.028	1.030	1.032	

16 year Cost Benefit Ana  
 Total PV Benefits  
 Total PV Costs  
**NET BENEFIT**



**TABLE B**

**City Connection Scenario**

	2027	2028	2029	2030	2031	2032	2033	2034	
<b>Costs</b>									
Initial Construction Cost Sewer Lateral	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Yearly Sewer Bill Cost	\$ 228.00	\$ 240.00	\$ 240.00	\$ 240.00	\$ 240.00	\$ 240.00	\$ 252.00	\$ 252.00	
City Sewer Tap Fee	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Watermain Extension due to Annexation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Easement Aquisition for Watermain	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Driveway extra Width & Thickness due to Annex	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
City Building Permit for Home	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Energy and Solar ready City requirements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Water Meter Fee	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Public Sidewalk due to Annexation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Annexation to City (Fees & professional services)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Total Costs (Future Value)</b>	\$ 228.00	\$ 240.00	\$ 240.00	\$ 240.00	\$ 240.00	\$ 240.00	\$ 252.00	\$ 252.00	\$ 137,099.73
<b>Total Costs (Present Value)</b>	\$ 223.97	\$ 235.29	\$ 234.83	\$ 234.38	\$ 233.92	\$ 233.46	\$ 244.66	\$ 244.19	\$ 137,036.44

**Benefits**

	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Benefits (Future Value)</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Benefits (Present Value)</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Present Value Discout Rate</b>									
PV Denominator	1.018	1.020	1.022	1.024	1.026	1.028	1.030	1.032	

**Cost Benefit Anal**  
 Total PV Benefits  
 Total PV Costs  
**NET BENEFIT**



Pat Devaney &lt;pat@acivilgroup.com&gt;

## Estimate for waterline and driveway at Country Woods

4 messages

Pat Devaney <pat@acivilgroup.com>  
To: Brian Burks <Brian.Burks@emerysapp.com>

Mon, Dec 18, 2017 at 2:02 PM

Brian,

I need an estimate from you guys for extending a water main and constructing a driveway at a vacant lot in Country Woods subdivision. I have attached an aerial image of the parcel in question as well as the City of Columbia water line map and a rough sketch showing a driveway layout. This will obviously be preliminary budget numbers, but I need your input on this. The city will not let this guy build his house on the lot without extending a 6" watermain from the intersection of Country Woods Rd. and Old Ridge to the subject lot. Assume laying the new line adjacent to the road along Old Ridge then along Cherry Bark Ct. down to the lot. Once at the lot, we will have to place a fire hydrant. This is all because there is insufficient fire flow at the end of Cherry Bark Ct.

The other thing they are requiring is that the driveway on the lot be suitable of supporting their 90,000lb truck. I assume this will have to be 6" reinforced concrete, but would like your thoughts. Please scale the length off of the driveway layout that is attached and make whatever assumptions you need to make.

Please call for discussion or with any questions.

Thanks,  
Pat




--  
Patrick M. Devaney, MS, PE  
A Civil Group, LLC.  
3401 Broadway Business Park Ct., Suite 105  
Columbia, Missouri 65203  
[573-817-5750](tel:573-817-5750)


573-817-1677 (Fax)  
[WWW.ACIVILGROUP.COM](http://WWW.ACIVILGROUP.COM)

"Concern for man and his fate must always form the chief interest of all technical endeavors."  
-Albert Einstein (1879-1955)

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**2 attachments**

 **City of Columbia - Water Lines.pdf**  
189K

 **Driveway Layout\_prelim\_K.P.\_5-25-17.pdf**  
418K

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**Pat Devaney** <pat@acivilgroup.com>  
To: Brian Burks <Brian.Burks@emerysapp.com>

Thu, Dec 21, 2017 at 10:22 AM

Hey Brian. Did you have any questions about this? Feel free to call for discussion.

Thanks,

Pat

[Quoted text hidden]

---

**Brian Burks** <Brian.Burks@emerysapp.com>  
To: Pat Devaney <pat@acivilgroup.com>

Thu, Dec 21, 2017 at 3:54 PM

Nope. Sorry, been covered up. Have you a rough idea over in the morning.

Thanks

## Brian Burks, PE

### EMERY SAPP & SONS, INC

2301 I-70 Drive NW, Columbia, MO 65202

O: 573-445-8331

C: 573-881-4771

F: 573-446-4805

[www.emerysapp.com](http://www.emerysapp.com)

Laying the groundwork for your succ**ESS**

**From:** Pat Devaney [mailto:[pat@acivilgroup.com](mailto:pat@acivilgroup.com)]  
**Sent:** Thursday, December 21, 2017 10:22 AM  
**To:** Brian Burks <Brian.Burks@Emerysapp.com>  
**Subject:** Re: Estimate for waterline and driveway at Country Woods

[Quoted text hidden]

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**Brian Burks** <Brian.Burks@emerysapp.com>  
To: Pat Devaney <pat@acivilgroup.com>

Fri, Dec 22, 2017 at 7:29 AM

Pat,

I came up with about 1000 LF of waterline. We would try to bore the majority of it due to the driveways and finished yards, With the hydrant, tap, and a couple bends, this would run somewhere in the \$80,000 range for a budget.

For the driveway I came up with about 800 SY. I think it could be 6" Non-Reinforced on dirt as they allow that for parking lots that the fire trucks get in just fine, if there's a fire I think the last thing they would be concerned about is their driveway possibly cracking. This will be about \$28,000 for the concrete assuming all grading, backfilling by others.

Thanks

## Brian Burks, PE

### EMERY SAPP & SONS, INC

2301 I-70 Drive NW, Columbia, MO 65202

O: 573-445-8331

C: 573-881-4771

F: 573-446-4805

[www.emerysapp.com](http://www.emerysapp.com)

Laying the groundwork for your succ**ESS**

**From:** Pat Devaney [mailto:[pat@acivilgroup.com](mailto:pat@acivilgroup.com)]

**Sent:** Thursday, December 21, 2017 10:22 AM

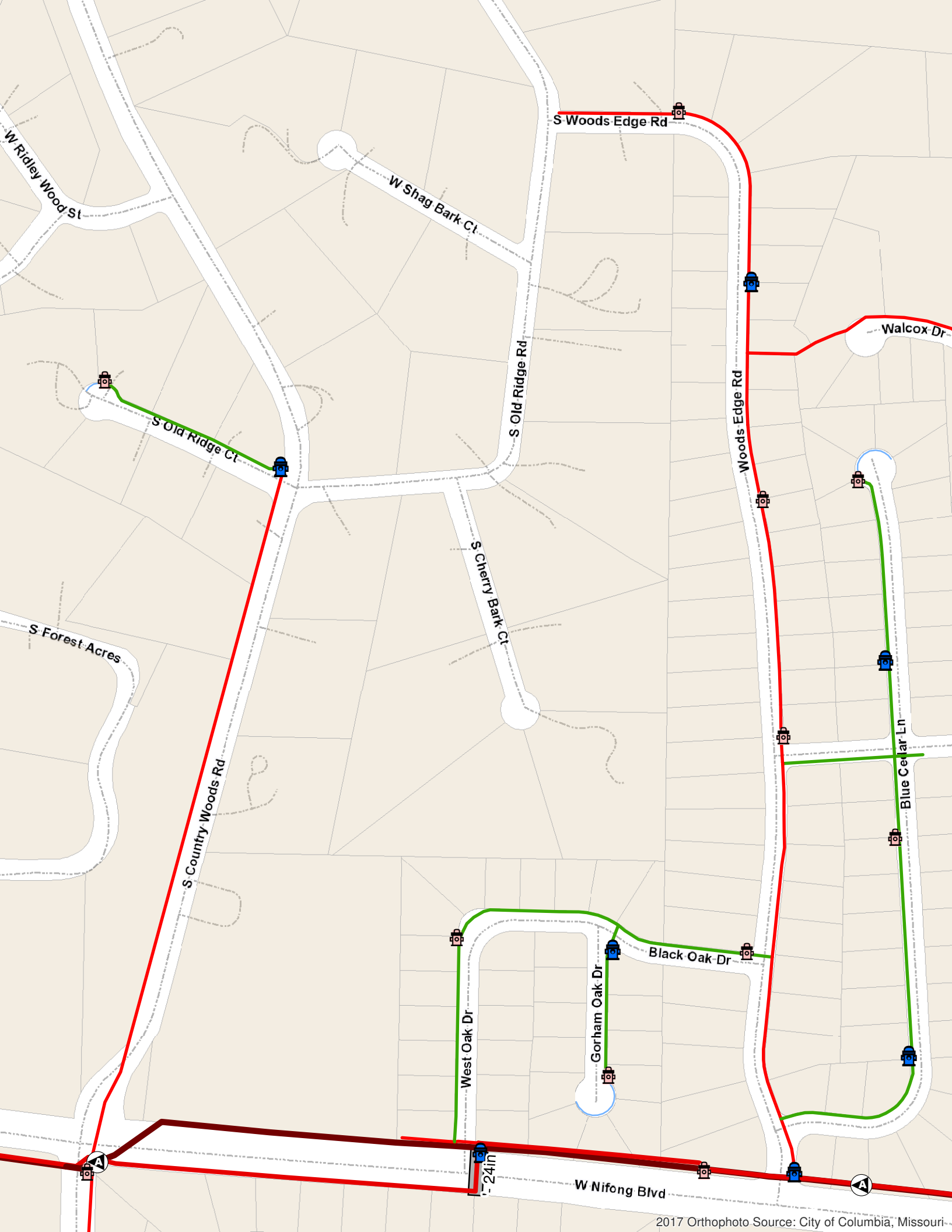
**To:** Brian Burks <[Brian.Burks@Emerysapp.com](mailto:Brian.Burks@Emerysapp.com)>

**Subject:** Re: Estimate for waterline and driveway at Country Woods

Hey Brian. Did you have any questions about this? Feel free to call for discussion.

Thanks,  
Pat

[Quoted text hidden]

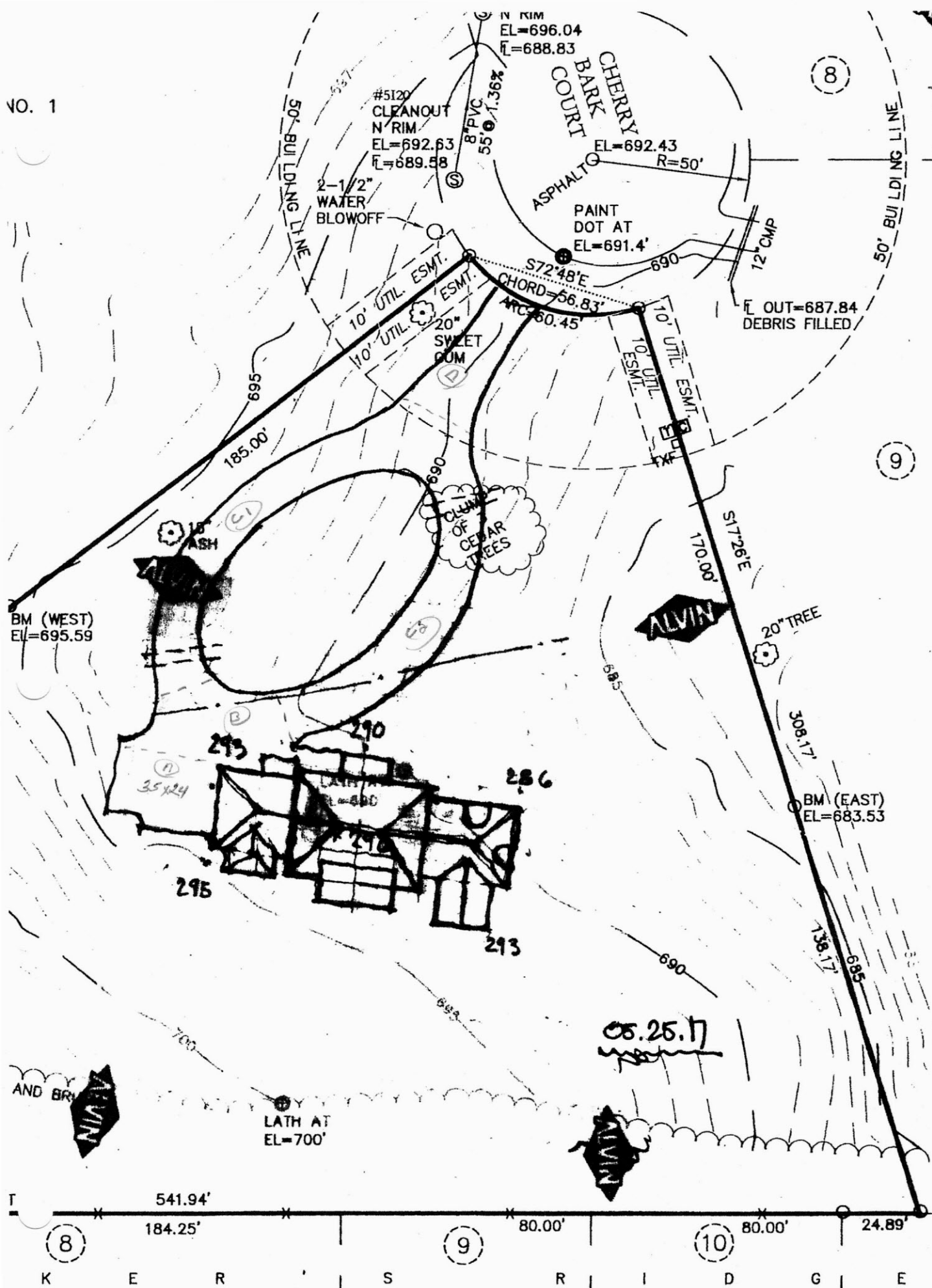






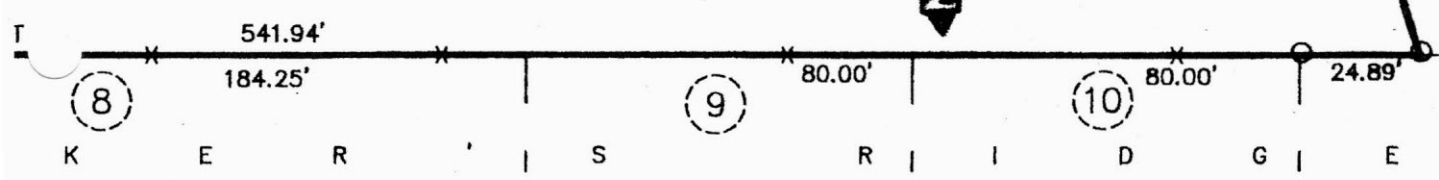
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plan  
K.P.

NO. 1

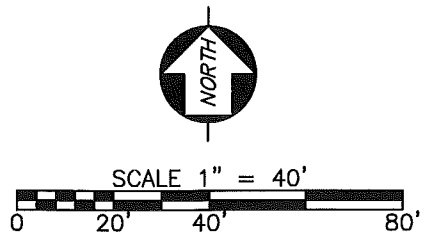


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05.25.17



K E R I S R I I D G I E



TOPOGRAPHIC SURVEY FOR  
**DAN & SYLVIA SUMMERS**

LOT 10, COUNTRY WOODS SUBDIVISION PLAT NO. 1  
BOONE COUNTY, MISSOURI

This is to certify that on March 9, 2016, and March 1, 2017, a survey was made under my direction of Lot 10, Country Woods Subdivision Plat No. 1, Boone County, Missouri, shown in Plat Book 11, Page 247 of the Boone County records.

The results of the boundary and topographic survey of this urban property showing some of the existing utilities, made for Dan and Sylvia Summers, and executed in accordance with the current Missouri Minimum Standards for Property Boundary Surveys, are shown on this plat.

On this date, the FLOOD INSURANCE RATE MAP, community-panel number 29019C0270D, dated March 17, 2011, was reviewed. The review showed that Lot 10, Country Woods Subdivision Plat No. 1, Boone County, Missouri, is not contained in any designated flood hazard area.

LUECK SURVEYING - Columbia, Missouri  
by:

*Ronald G. Lueck*

Ronald G. Lueck  
Professional Land Surveyor  
LS #1957

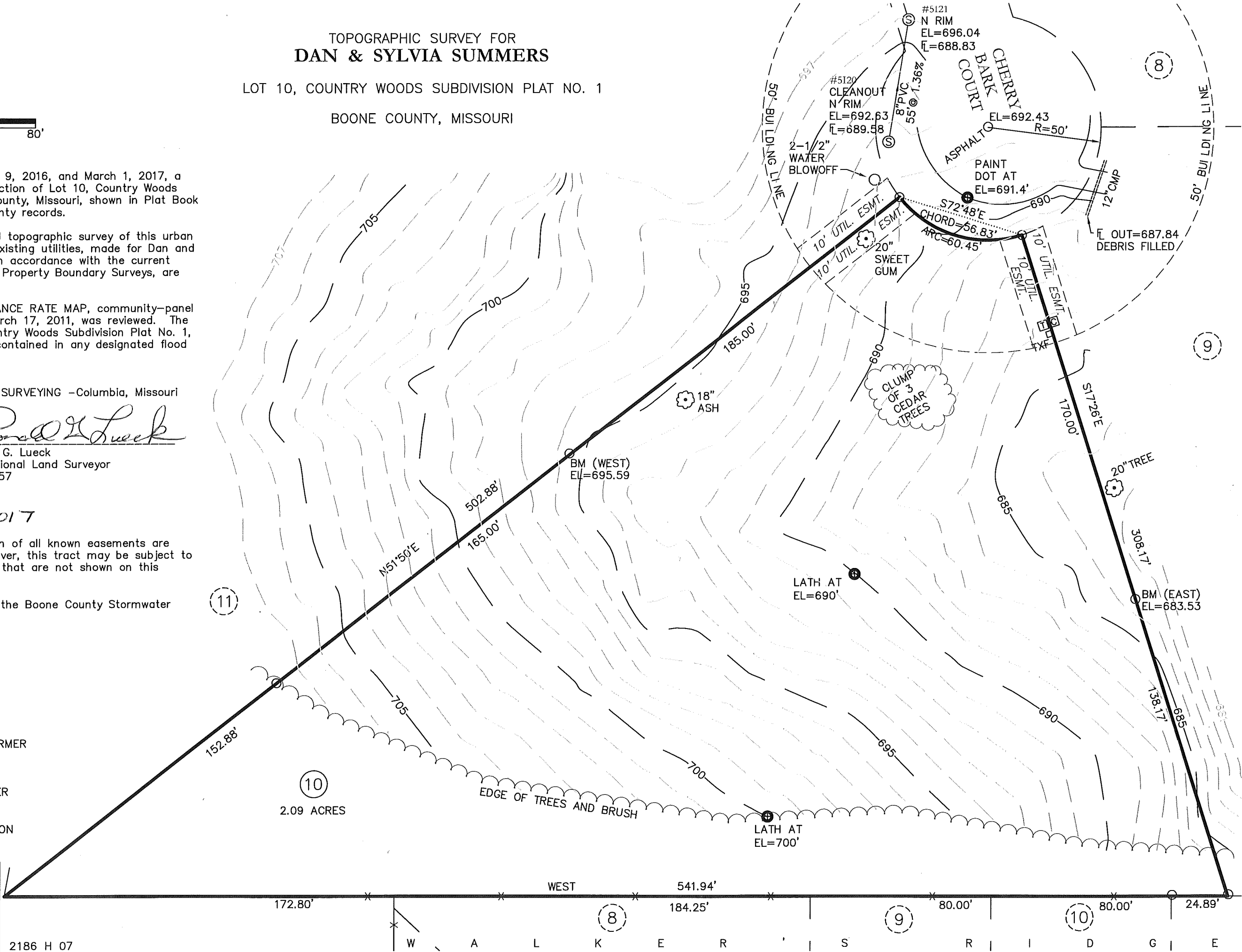
Notes **MARCH 7, 2017**

- 1) The name, width and location of all known easements are shown on this survey. However, this tract may be subject to easements, unknown to me, that are not shown on this survey.
- 2) These tracts are subject to the Boone County Stormwater Ordinance.

LEGEND

- EXISTING IRON PIPE
- TELEPHONE PEDESTAL
- ▣ CATV PEDESTAL
- TXF □ PAD-MOUNTED TRANSFORMER
- ☼ TREE AS NOTED
- ⊙ CITY OF COLUMBIA SEWER MANHOLE OR CLEANOUT
- BM BENCHMARK (TOP OF IRON PIPE)

**LUECK SURVEYING**  
914 N. COLLEGE AVE., STE. 2  
COLUMBIA, MISSOURI 65201  
rlueck@socket.net  
PHONE: (573) 443-6219



2186 H 07

WALKER R I D G E

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