

St Germain, Dante

From: Nanci Dively <nsd@bardlaw.net>
Sent: Wednesday, October 18, 2023 5:15 PM
To: St Germain, Dante
Cc: Nick Pregliasco; klinares@mindelscott.com
Subject: 23-ZONE-0111 Agency Comments - Cedar Creek Patio Homes

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Dante:
Please see below.

From: William Grant Hess, P.G. <GHess@ecslimited.com>
Sent: Monday, October 16, 2023 7:18 PM
To: Kathy Linares <klinares@mindelscott.com>
Cc: Liz Blandford, P.E. <LNewcomb@ecslimited.com>; Nick Pregliasco <nrp@bardlaw.net>; Greg Spink <gregdspink@icloud.com>
Subject: RE: 23-ZONE-0111 Agency Comments - Cedar Creek Patio Homes

Kathy,

In our opinion, the difference between the two definitions (**Sinkhole** vs. **Sinkhole Collapse Feature**) isn't significant enough to define the observed features (F-03 and F-04) as Sinkhole Collapse Features.

Both are formed by erosion and transport of earth material from below the land surface, can be formed in soil or rock, and both have a defined shape at the surface. While the definition for a **Sinkhole Collapse Feature** states "a relatively steep-side, "throatlike" sinkhole typically within a larger sinkhole and typically with rock or soil walls", this is still ambiguous considering the observed underlying erosional rock feature at F-03 and F-04 is relatively steep-sided and there could be relatively steep-sided for any of the remaining potential karst features (or any feature for that matter). Considering the only portion of the **Sinkhole Collapse Feature** definition that differentiates itself from the **Sinkhole** definition is that a **Sinkhole Collapse Feature** consists of "sinkhole typically within a larger sinkhole". This was not observed at the time of our Karst Survey.

The definition for a **Sinkhole** is defined as "Any closed depression in soil or bedrock formed by the erosion and transport of earth material from below the land surface, which is circumscribed by a closed topographic contour and drains to the subsurface. The sinkhole boundary is described as an area bounded by a projected line demarcating a change in slope from toward the center of the sinkhole to away from the sinkhole which represents a local drainage divide. Precipitation falling on the surface sloping toward the sinkhole is likely to run into the sinkhole throat, or infiltrate the soil and move through subsoil conduits to the throat. This includes areas which contribute surface water to a sinkhole via streams."

At this time, we would consider the two features to be a **Sinkhole** as it is defined by the LDC.

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From: Kathy Linares <klinares@mindelscott.com>

Sent: Monday, October 16, 2023 2:47 PM

To: William Grant Hess, P.G. <GHess@ecslimited.com>

Cc: Liz Blandford, P.E. <LNewcomb@ecslimited.com>; Nick Pregliasco <nrp@bardlaw.net>; Greg Spink <gregdspink@icloud.com>

Subject: [EXTERNAL] RE: 23-ZONE-0111 Agency Comments - Cedar Creek Patio Homes

Grant,

I am attaching the Land Development Code section that discusses karst requirements along with the definitions provided for sinkhole collapse features which includes sinking stream sink-point and cave entrances for your consideration and confirmation that I can send to our case manager.

Kathy Linares, ASLA, LA, AICP

Senior Planner / Landscape Architect

Mindel Scott

KLinares@MindelScott.com

O: 502.485.1508 | Ext. 131

From: William Grant Hess, P.G. <GHess@ecslimited.com>

Sent: Friday, October 13, 2023 12:05 PM

To: Kathy Linares <klinares@mindelscott.com>

Cc: Liz Blandford, P.E. <LNewcomb@ecslimited.com>; Nick Pregliasco <nrp@bardlaw.net>; Greg Spink <gregdspink@icloud.com>

Subject: RE: 23-ZONE-0111 Agency Comments - Cedar Creek Patio Homes

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Kathy,

Please see below for our **response** to your questions.

I have included Nick Pregliasco of Bardenwerper Talbott and Roberts the attorney for the development proposal as well as our client contact Greg Spink in this email so all are informed. My first question to you below is based on your survey of the site whether you determined that karst features F-03 and F-04 are potentially sinkhole collapse features?

- If by “sinkhole collapse features” they are referring to a “collapse sink” which is defined by the Geological Survey Water-Supply Paper 1899-K, A Glossary of Karst Terminology, as “A closed depression formed by the collapse of the roof of a cave”. Then no, I did not observe any evidence of a potential existing cave and/or large subsurface void. These features appear to be typical of the karst terrain in this region consisting of relatively shallow solution features (generally cylindrical, funnel, and/or slot shaped features) formed at the soil/rock interface and are typically remediated at the time of construction.

Based on your expertise do either give you pause at this point for the construction of the buildings proposed?

- No, not at this time. Typically, karst features in this vicinity and similar to those identified in the Karst Survey (ECS Project No. 61-3046, Cedar Creek Patio Homes – Karst Survey, dated September 27, 2023) can be stabilized for development, as needed, for the planned future use of the site. Remediation methods vary based on planned use of the specific area where a karst feature is located and the characteristics of each feature.

Treatment methods may vary for features where buildings or other improvements are located, in contrast to features in non-sensitive areas.

We need your input as the specialist in this area. The Land Development Code, in the attached section, indicates that the Planning Commission cannot approve residential structures over sinkhole collapse features. It goes on to say that the geotechnical engineer shall determine the buffer required around a sinkhole collapse feature.

- **In general, we recommend any potential karst feature (sinkhole, closed depression, etc.) encountered within a proposed structure remediated at minimum 5 feet outside the proposed construction footprint. We recommend any features requiring karst feature buffer to be extended at minimum 10 feet outside the proposed structural areas (i.e., buildings, pavements, retaining walls, etc.).**

We could maybe shift the 3 unit building over feature F-03 back some from the road if that would help but are also limited by our requirement to preserve 20% of the existing tree canopy. (currently show 26% preserved but this could change at construction)

Nick,

Any chance you think Dante can be convinced this request is ready to move forward with the addition of a 2nd stronger worded karst note or added binding element? What do you suggest?

Please let me know if you have any questions or concerns.

Thanks,

WILLIAM GRANT HESS, P.G. | Senior Project Manager
ECS SOUTHEAST, LLP | T 502.493.7100 D 502.208.2200 C 502.645.9764
GHess@ecslimited.com | www.ecslimited.com

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From: Kathy Linares <klinares@mindelscott.com>
Sent: Friday, October 13, 2023 10:43 AM
To: William Grant Hess, P.G. <GHess@ecslimited.com>
Cc: Liz Blandford, P.E. <LNewcomb@ecslimited.com>; Nick Pregliasco <nrp@bardlaw.net>; Greg Spink <gregdspink@icloud.com>
Subject: [EXTERNAL] RE: 23-ZONE-0111 Agency Comments - Cedar Creek Patio Homes
Importance: High

Grant,

I have included Nick Pregliasco of Bardenwerper Talbott and Roberts the attorney for the development proposal as well as our client contact Greg Spink in this email so all are informed. My first question to you below is based on your survey of the site whether you determined that karst features F-03 and F-04 are potentially sinkhole collapse features? Based on your expertise do either give you pause at this point for the construction of the buildings proposed? We need your input as the specialist in this area. The Land Development Code, in the attached section, indicates that the Planning Commission cannot approve residential structures over sinkhole collapse features. It goes on to say that the geotechnical engineer shall determine the buffer required around a sinkhole collapse feature. We could maybe shift the 3 unit building over feature F-03 back some from the road if that would help but are also limited by our requirement to preserve 20% of the existing tree canopy. (currently show 26% preserved but this could change at construction)

Nick,

Any chance you think Dante can be convinced this request is ready to move forward with the addition of a 2nd stronger worded karst note or added binding element? What do you suggest?

Kathy Linares, ASLA, LA, AICP

Senior Planner / Landscape Architect

Mindel Scott

KLinares@MindelScott.com

O: 502.485.1508 | Ext. 131

From: William Grant Hess, P.G. <GHess@ecslimited.com>

Sent: Thursday, October 12, 2023 12:31 PM

To: Kathy Linares <klinares@mindelscott.com>

Cc: Liz Blandford, P.E. <LNewcomb@ecslimited.com>

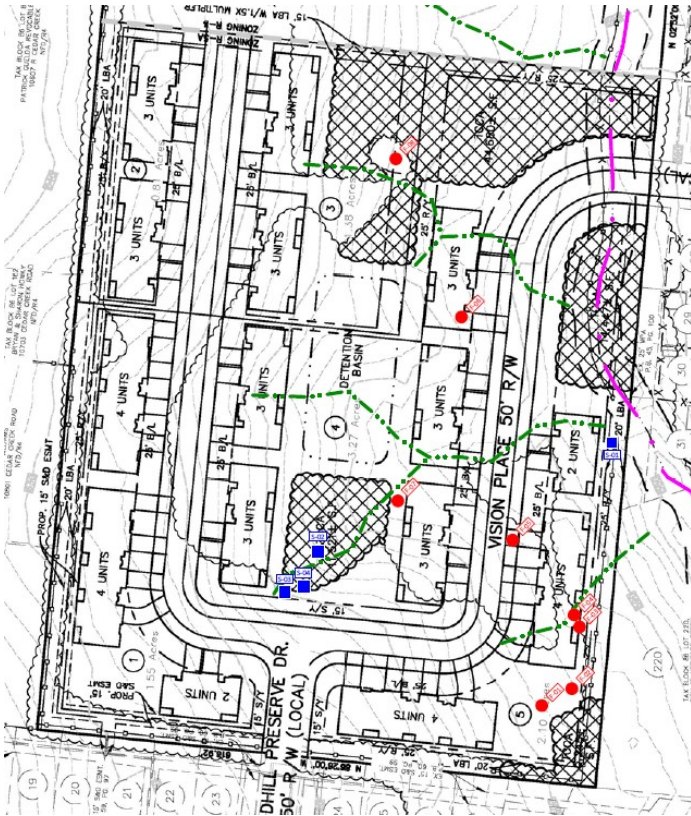
Subject: Re: 23-ZONE-0111 Agency Comments - Cedar Creek Patio Homes

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Kathy,

I don't believe we will need to do any additional testing to confirm the features at this time. However, when a geotechnical exploration is conducted, we would like the opportunity to include preliminary subsurface exploration (may include hand digging, borings, etc.) for features that will impact the planned construction. Those that are in landscaped areas or outside planned construction areas do not need any additional testing.

During our karst survey, the various karst features were located in the field with a consumer grade GPS, which does not have as high of precision or accuracy as conventional survey equipment. I would recommend surveying the karst locations (e.g., F-03 to F-07) to confirm the location of the features that are near the proposed buildings.



Please let me know if you have any questions or concerns.

Thanks,

WILLIAM GRANT HESS, P.G. | Senior Project Manager
ECS SOUTHEAST, LLP | T 502.493.7100 D 502.208.2200 C 502.645.9764
 GHess@ecslimited.com | www.ecslimited.com

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From: Kathy Linares <klinares@mindelscott.com>

Sent: Wednesday, October 11, 2023 1:47:01 PM

To: William Grant Hess, P.G. <GHess@ecslimited.com>

Cc: Greg Spink <gregdspink@icloud.com>; Nick Pregliasco <nrp@bardlaw.net>; Anna Martinez <anna@bardlaw.net>;
nsd@bardlaw.net <nsd@bardlaw.net>

Subject: [EXTERNAL] FW: 23-ZONE-0111 Agency Comments - Cedar Creek Patio Homes

Grant,

Do you agree with the attached staff comment that karst features F-03 and F-04 are potentially sinkhole collapse features? Or if additional investigation is needed to confirm this. Let us know your thoughts and if more investigation or a meeting is sufficient to further address the concern.

Kathy Linares, ASLA, LA, AICP
 Senior Planner / Landscape Architect

Mindel Scott

KLinares@MindelScott.com

O: 502.485.1508 | Ext. 131

From: Nick Pregliasco <nrp@bardlaw.net>

Sent: Wednesday, October 11, 2023 10:51 AM

To: Kathy Linares <klinares@mindelscott.com>

Cc: Anna Martinez Tomes <anna@bardlaw.net>; Nanci Dively <nsd@bardlaw.net>

Subject: FW: 23-ZONE-0111 Agency Comments

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Kathy: We just received these comments. Still have the same two outstanding comments about the Karst and the elevations. I haven't heard back on the elevations, but will send an email. We can answer the part about the dimensions of the garages and need client to confirm architectural interest on the sides of the building.

Do you think we should have a meeting to discuss the karst issue as we discussed? Nick



Land Law

BARDENWERPER TALBOTT & ROBERTS, PLLC

Attorneys at Law

www.bardlaw.net

(Firm Celebration of 35 Years in 2022)

502-426-6688 ext. 139 (W)

502-777-8831 (M)

From: St Germain, Dante <Dante.St.Germain@louisvilleky.gov>

Sent: Wednesday, October 11, 2023 9:50 AM

To: Nick Pregliasco <nrp@bardlaw.net>

Cc: Anna Martinez Tomes <anna@bardlaw.net>; Nanci Dively <nsd@bardlaw.net>

Subject: 23-ZONE-0111 Agency Comments

Attached are agency comments for the Cedar Creek Road patio homes project. Please let me know if you have any questions.

Dante St. Germain, AICP

Planner II

Office of Planning

444 S 5th Street, Suite 300, Louisville, KY 40202

O: (502) 574-4388



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