

**CITY OF BRENHAM
PLANNING AND ZONING COMMISSION MINUTES
March 28, 2022**

The meeting minutes herein are a summarization of meeting procedures, not a verbatim transcription.

A regular meeting of the Brenham Planning and Zoning Commission was held on March 28, 2022, at 5:15 pm in the Brenham Municipal Building, City Council Chambers, at 200 West Vulcan Street, Brenham, Texas.

Commissioners present:

Dr. Deanna Alfred, Vice Chair	Calvin Kossie
Artis Edwards, Jr.	Cayte Neil
Chris Cangelosi	Marcus Wamble

Commissioners absent:

M. Keith Behrens, Chair

Staff present:

Stephanie Doland, Development Services Director
Shauna Laauwe, City Planner
Kim Hodde, Planning Technician
Debbie Gaffey, Public Works Manager
Alton Sommerfield, Assistant Public Works Manager

Citizens / Media present:

Trace Harris, Brenham Banner Press	Kevin Kuklis
Joshua Blaschke, KWHI	Garrett Casada
Gregg Appel	Morgan Riddell, KBTX

1. Call Meeting to Order

Vice Chairman Alfred called the meeting to order at 5:17 pm with a quorum of six (6) Commissioners present.

2. Public Comments

There were no public comments.

3. Reports and Announcements

There were no reports or announcements.

CONSENT AGENDA

4. Statutory Consent Agenda

The Statutory Agenda includes non-controversial and routine items that the Commission may act on with one single vote. A Commissioner may pull any item from the Consent Agenda in order that the Commission discuss and act upon it individually as part of the Regular Agenda.

- 4-a. Minutes from the January 10, 2022 Joint meeting of the Brenham City Council and the Planning and Zoning Commission.**
- 4-b. Minutes from the February 28, 2022 Joint Training Session with the Board of Adjustment.**

- 4-c. **Minutes from the February 28, 2022 Planning and Zoning Commission Meeting.**
- 4-d. **Case Number P-22-008: A Preliminary Plat of Zoo Hollow Subdivision, consisting of Lots 1-4 in Block 1, being 1.500-acres, 2.569-acres, 2.637-acres, and 2.265-acres, respectively, along with approximately 0.076-acres of right-of-way dedication for Zoo Lane for a total of 9.047-acres, out of the Hiram Lee Survey, A-76 in Washington County, Texas.**
- 4-e. **Case Number P-22-009: A Final Plat of Zoo Hollow Subdivision, consisting of Lots 1-4 in Block 1, being 1.500-acres, 2.569-acres, 2.637-acres, and 2.265-acres, respectively, along with approximately 0.076-acres of right-of-way dedication for Zoo Lane for a total of 9.047-acres, out of the Hiram Lee Survey, A-76 in Washington County, Texas.**
- 4-f. **Case Number P-22-011: A request by Appel Hill Properties, LP / HH Brenham Holdings, L.P. for approval of a Replat of Lots 1, 2, and 4 of the Appel Business Park, Section II to create Lot 1A (1.207-acres) and Lot 2A (2.402-acres) for a total of 3.609-acres, currently addressed as 1710 and 1730 US Highway 290 W and further described as part of the P. H. Coe Survey, A-31, in Brenham, Washington County, Texas**

Vice Chairman Alfred called for a motion for the statutory consent agenda. A motion was made by Commissioner Neil and seconded by Commissioner Kossie to approve the Statutory Consent Agenda (Items 4-a and 4-f) as presented. The motion carried unanimously.

REGULAR SESSION

- 5. **Public Hearing, Discussion and Possible Action on Case Number P-22-010: A request by the Gregory E. Appel and John J. Appel Rental Partnership for approval of a Replat of Lot 1, Block 1 of the Timber Oaks Subdivision, Section III to create Lot 1A (0.194-acres) and Reserve "A" (0.118-acres) for a total of 0.312-acres of land, currently addressed as 1401 Timber Oaks Drive and further described as part of the P.H. Coe Survey A-31, in Brenham, Washington County, Texas.**

Shauna Laauwe, City Planner, presented the staff report for Case No. P-22-010 (on file in the Development Services Department). Ms. Laauwe stated that subject property is owned by the Gregory E. Appel and John J. Appel Rental Partnership and is a vacant lot located south of Old Mill Creek Road and abutting the southwest intersection of Oak Tree Crossing and Timer Oaks Drive. The property owner would like to replat a portion of Lot 1 to create Reserve "A" for a possible future extension of Oak Tree Crossing for future access to the adjacent Appel property located to the south. Lot 1A is proposed to contain 0.194-acres and the proposed Reserve "A" is proposed to contain 0.118-acres of land.

Public Notice was posted in the Banner Press and property owners within 200-feet were mailed notices on March 13, 2022. Staff did not receive any responses in support of or against the requested zone change.

Development Services and Engineering reviewed this residential replat for compliance with the City of Brenham's regulations and ordinances and recommends approval as presented.

Vice Chairman Alfred opened the Public Hearing at 5:25 pm. There were no citizen comments.

Vice Chairman Alfred closed the Public Hearing at 5:26 pm.

A motion was made by Commissioner Kossie and seconded by Commissioner Wamble for approval of a request by the Gregory E. Appel and John J. Appel Rental Partnership for approval of a Replat of Lot 1, Block 1 of the Timber Oaks Subdivision, Section III to create Lot 1A (0.194-acres) and Reserve "A" (0.118-acres) for a total of 0.312-acres of land, as presented. The motion carried unanimously.

6. Public Hearing, Discussion and Possible Action on Case Number P-22-012: A City initiated request to amend the City of Brenham’s Code of Ordinances, Appendix A: Zoning, Part II, Division 1, Section 14 – Home Occupations.

Shauna Laauwe, City Planner, presented the staff report for Case No. P-22-012 (on file in the Development Services Department). Ms. Laauwe stated that in the fall of 2021, a resident requested additional electrical amperage for a single-family residence to support large, state-of-the-art computer systems needed for a digicoin trading hobby. It was stated that “we are wanting to add 1 shelf rack of computers to the existing garage and that he simply wanted to pursue a hobby that requires computer programming that requires power”. Utility Billing staff contacted Development Services to verify that the use was allowed in the R-1 zoning district. The resident stated that the intended use was a hobby, no signage would be installed, that no outside employees would be involved, that the use would not be visible from the street and that the use would meet all the parameters of Home Occupations as listed in Section 14.03. The Development Services and the Electrical Department met with the property owner to discuss the additional electrical upgrades for the proposed use to allow an additional 1200 amps of electrical service to the standard 200 amps. The use was approved and subsequently the electrical meters were installed and passed an electrical inspection.

Since approval, it has come to City Staff’s attention that the electricity load and usage for this residential property is excessive, to the point the usage is the same as found in large commercial contracts. One noteworthy difference is the deposit associated with utility accounts based on use of the property. Currency mining located in a residential home would not require any additional deposit for service and properties with currency mining generate bills that far exceed the \$300 deposit if a bill were to default. Further research by Staff has resulted in findings that the new cryptocurrency mining endeavor has additional impacts and should be prohibited in residential areas. Therefore, the City of Brenham is requesting a text amendment to the Zoning Ordinance to provide new definitions that regard cryptocurrency mining, and language to Section 14- Home Occupations, that would prohibit future large-scale requests from being allowed as a home occupation or hobby. Such large-scale cryptocurrency operations would be defined as commercial cryptocurrency in the proposed amendment.

The following amendments are being proposed:

Appendix A Zoning, Part 1. General Provisions:

Section 5.02 – Definitions:

- Cryptocurrency: A digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.
- Commercial cryptocurrency mining: The commercial process by which cryptocurrency transactions are verified and added to the public ledger, known as the block chain, and also the means through which new units of cryptocurrencies are released, through the use of server farms employing data processing equipment. For purposes of this definition, any equipment which requires a High-Density Load Service, or any Server Farm, will presumably be a commercial cryptocurrency mining operation.
- Server Farm: Three or more interconnected computers housed together in a single facility whose primary function is to perform cryptocurrency mining or associated data processing.
- High-Density Load Service: Provision of electrical service where the requested load density, in the portion of the premises containing the load consuming equipment exceeds 250 kWh/ft²/year.

Appendix A, Part 2, Division 1, Section 14 – Home Occupations (Additions are shown in red, existing ordinance shown in black.)

(Section 14.03) Limitations on home occupations. A home occupation is a permitted use in a residential neighborhood only if less than fifty (50) percent of the floor space is allocated to the home occupation, is used by a resident of the home where the home occupation is located and is not described as a prohibited activity as provided below. However, no home occupations including those described above shall be permitted that does any of the following:

- (1) Changes the outside appearance of the dwelling;

- (2) Is visible from the street;
- (3) Generates traffic, parking, sewage, **electrical**, or water use in excess of what is normal in the residential neighborhood;
- (4) Results in the off-street or on-street parking of more than two (2) vehicles at any one time not owned by members of the occupant family;
- (5) Creates a hazard to persons or property;
- (6) Results in electrical interference;
- (7) Is a nuisance;
- (8) Results in the outside storage or display of anything;
- (9) Includes employment within the home or on the premises of persons other than members of the occupant family;
- (10) Displays signs or advertising of any type on premises, except as follows:
 - (a) Word of mouth by telephone or face to face.
 - (b) Free listing in the telephone directories and business journals and directories.
 - (c) Business cards and stationery.

(Section 14.04) The following are specifically prohibited as home occupations:

- (1) Barber, beauty, and other personal service, unless the provision of such services is conducted within the limitations of a home occupation in **section 14.03**;
- (2) Animal hospitals, stables, or kennels;
- (3) **Commercial Cryptocurrency mining;**
- (4) **Server farm;**
- (5) Dance studios, schools;
- (6) Mortuaries;
- (7) Private clubs;
- (8) Repair shops;
- (9) Restaurants;
- (10) Automobile paint or repair shops;
- (11) Doctor, dentist, veterinarian or other medically related office;
- (12) Rooming/boarding/lodging house.

As cited in the city's adopted Zoning Ordinance, site development standards are established for the purpose of promoting and protecting the health, safety, morals and general welfare of the residents, citizens and inhabitants of the City of Brenham and for the protection and preservation of the small-town character of Brenham, including historical places, places of cultural importance and places that reflect the predominant community values as reflected in the City's Comprehensive Plan. However, staff finds that from time-to-time it is necessary to update the Zoning Ordinance and existing site development standards to accommodate development and modernize development requirements.

Cryptocurrency Mining is a relatively new venture that communities are just now learning of the negative effects to residents and communities as a whole. Staff first looked for guidance from the American Planning Association and could not find any planning documents or action plans to mitigate the new technology and electrical use. Among Staff's research, we did find numerous articles and a detailed and informative presentation that was given by Andy Wendell, Director of Customer Services of Chelan County Public Utility District in Chelan County, Washington to the Chelan County Commission on September 25, 2021. In Mr. Wendell's report, it details how one typical cryptocurrency mining operation utilizes 10 servers that generate the same amount of electricity as five (5) homes. A typical street of fifteen (15) residential homes would share five (5) transformers and utilize a typical urban underground distribution system. However, if one of those homes began a home occupation (or hobby) of cryptocurrency mining, the same street would now have the equivalent of twenty (20) residential homes, require at least two (2) new transformers, new secondary supply cables, and replacement and upgrading of the primary cable. The price of transformers has increased from \$1,500 to \$10,000 and the current lead time is 1-year. If commercial cryptocurrency is decentralized and allowed in residential zoned areas, it could quickly result in the need to add neighborhood substations, upgrading existing transformers, adding high voltage transmissions, and upgrading existing neighborhood distribution lines. One cryptocurrency mining use will not have a huge impact, but additional cryptocurrency mining operations in residential areas may quickly result in the need for additional and costly

infrastructure. Given the potential impacts to the increased electrical use and existing infrastructure, Staff finds that prohibiting commercial cryptocurrency mining in residences as home occupations or hobbies in Section 14 of the Zoning Ordinance as a beneficial first step in regulating the use.

The Notice of Public Hearing for the proposed Text Amendment was published in the Brenham Banner on March 17, 2022. No public comments were received.

Staff recommends **approval** of an ordinance to amend Appendix A – Zoning of the Brenham Code of Ordinances, Part II, Division 1, Section 14- Home Occupations; Section 14.03(3) Limitations on Home Occupations, Section 14.04 Specifically Prohibited as Home Occupations, and Section 5.02 Definitions, to prohibit commercial cryptocurrency mining as a home occupation, as follows:

Chapter 14

Section 5.02 - add the following definitions:

- Cryptocurrency
- Commercial cryptocurrency mining
- Server Farm
- High-Density Load Service

Section 14.03 Limitations on home occupations:

- Add “electrical” to limitation number three.

Section 14.04 Prohibited home occupations:

- Add Commercial Cryptocurrency mining and Server Farm

Vice Chairman Alfred opened the Public Hearing at 5:40 pm. Garrett Casada, 1109 Green Street, identified himself as the current cryptocurrency miner in a residential home as alluded to by staff in the Staff Report and presentation. Mr. Casada stated that ideally, he would like to ask for more electricity usage for his operation at 1109 Green Street however he agrees with Staff that the infrastructure needed for mining is not located in residential areas but rather in areas with three-phase power like commercial or industrial districts. He further stated that Crypto is not going away and this is something that he and his son do together.

In response to questions by Commissioners, Mr. Casada stated:

- Mr. Casada has a similar operation at this ranch with solar panels on the roof (served by Bluebonnet Electric)
- The operation is not noisy – only the computer’s fan produces a noise.
- New technology will use water cooling and will basically be noiseless, though not yet installed in Mr. Casada’s operation.
- The largest operational expense is the electrical usage.
- Mr. Casada currently has 40 servers but has infrastructure for 80-units.
- A bitcoin is currently worth \$47,000 and is a large income source for many.
- Kids are currently mining with one computer as a hobby.
- Mr. Casada has agreed to shut down his crypto operation in the event of an electrical shortage.
- An appropriate zoning district for cryptocurrency mining may be an Industrial district.
- Cryptocurrency mining is making a positive impact on Rockdale, Texas; however, it is not located in residential areas but in an industrial area.

Debbie Gaffey stated the following:

- There are pluses and minuses to cryptocurrency; however, it is too new and additional information is needed.
- The electrical load profile for cryptocurrency mining is not residential and there has not been a tariff designed for it yet.
- Some larger commercial mining companies have also been inquiring about locating in Brenham.
- Without a proper rate tariff, there is a substantial credit risk as well as a risk to the electrical system.
- The distribution system has to be balanced.

- City wants to pause and make sure that everything is in place and done correctly so that this can have a positive impact on Brenham.

Alton Sommerfield stated the following:

- The City’s current design standards for transformers are not large enough – one cryptocurrency mining operation could overload the residential transformers.
- The City of Brenham currently has two sub-stations and five power transformers.
- The north side of town would probably have the most capacity to handle this type of increased load.
- The City of Brenham is looking into additional options to address these issues.

In response to a Commissioner’s question as to whether there are any margins to designate what is considered a “hobby”, Ms. Gaffey responded that a tariff would define these and other parameters including allowable maximum usage limits per classification profile. However, cryptocurrency mining does not have a profile or tariff developed yet. A cost-of-service study needs to be done and a profile and tariff developed.

Brenham is not looking to totally prohibit cryptocurrency mining but additional research is needed to ensure that it is located in areas where the electric grids can handle the load.

Vice Chairman Alfred closed the Public Hearing at 6:01 pm.

A motion was made by Commissioner Cangelosi and seconded by Commissioner Kossie to recommend approval of approve a City initiated request to amend the City of Brenham’s Code of Ordinances, Appendix A: Zoning, Part II, Division 1, Section 14 – Home Occupations, as presented. The motion carried unanimously.

7. Adjourn.

A motion was made by Commissioner Edwards and seconded by Commissioner Cangelosi to adjourn the meeting at 6:08 pm. The motion carried unanimously.

The City of Brenham appreciates the participation of our citizens, and the role of the Planning and Zoning Commissioners in this decision-making process.

Certification of Meeting Minutes:

M. Keith Behrens
 Planning and Zoning Commission

M. Keith Behrens
 Chair

April 25, 2022
 Meeting Date

Kim Hodde
 Attest

Kim Hodde
 Staff Secretary

April 25, 2022
 Meeting Date