

**STATE OF MISSOURI**  
**DEPARTMENT OF NATURAL RESOURCES**  
**MISSOURI CLEAN WATER COMMISSION**



**CONSTRUCTION PERMIT**

The Missouri Department of Natural Resources hereby issues a permit to:

ALLIED PROPERTY PARTNERS, LLC  
P.O. Box 22  
Silex, MO 63377

for the construction of (described facilities):

See attached.

Permit Conditions:

See attached.

Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources (department).

As the department does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

A representative of the department may inspect the work covered by this permit during construction. Issuance of a permit to operate by the department will be contingent on the work substantially adhering to the approved plans and specifications.

This permit applies only to the construction of water pollution control components; it does not apply to other environmentally regulated areas.

December 13, 2024  
Effective Date

December 12, 2026  
Expiration Date

  
\_\_\_\_\_  
John Hoke, Director, Water Protection Program

## **CONSTRUCTION PERMIT**

### **I. CONSTRUCTION DESCRIPTION**

The proposed construction of the Allied Property Partners, LLC, wastewater treatment facility (WWTF) is to treat domestic wastewater from a residential development located at 17297 Pike 471, Bowling Green, Pike County, Missouri. The development will have a total of 36 homes, including 33 mobile homes and 3 two-bedroom houses.

The proposed WWTF will include 36 individual Aerobic Treatment Units (ATUs), a collection system, and two wastewater drip systems. Each home will have Hoot LA500 ATU, capable of treating 500 gallons per day (gpd). From the ATU, flows will go via gravity through approximately 1,950 feet of 4-inch PVC pipe to 2 pump tanks. From the pump tanks, flows will go to one of 2 drip dispersal fields. Drip field 1 will have a design average flow of 7,620 gpd. The drip field 2 will have a design average flow of 3,000 gpd. The soils at this site are rated for 0.15-0.2 gallons per square foot per day (gpd/ft<sup>2</sup>). The facility is utilizing different loading rates based on the soils report for the different zones.

The facility has a design average flow of 10,620 gpd and serves a hydraulic population equivalent of approximately 106 people.

This project will also include general site work appropriate to the scope and purpose of the project and all necessary appurtenances to make a complete and usable wastewater treatment facility.

### **II. COST ANALYSIS FOR COMPLIANCE**

Pursuant to Section 644.145, RSMo, when issuing permits under this chapter that incorporate a new requirement for discharges from publicly owned combined or separate sanitary or storm sewer systems or publicly owned treatment works, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned combined or separate sanitary or storm sewer system or [publicly owned] treatment works, the Department of Natural Resources shall make a “finding of affordability” on the costs to be incurred and the impact of any rate changes on ratepayers upon which to base such permits and decisions, to the extent allowable under this chapter and the Federal Water Pollution Control Act. This process is completed through a cost analysis for compliance. Permits that do not include new requirements may be deemed affordable.

The department is not required to complete a cost analysis for compliance because the facility is not a combined or separate sanitary sewer system for a publicly owned treatment works.

### **III. CONSTRUCTION PERMIT CONDITIONS**

The permittee is authorized to construct subject to the following conditions:

1. This construction permit does not authorize discharge.
2. All construction shall be consistent with plans and specifications signed and sealed by Jeff E. Browning, P.E., with Allied Engineering Services, LLC, and as described in this permit.
3. The department must be contacted in writing prior to making any changes to the plans and specifications that would directly or indirectly have an impact on the capacity, flow, system layout, or reliability of the proposed wastewater treatment facilities or any design parameter that is addressed by 10 CSR 20-8, in accordance with 10 CSR 20-8.110(11).
4. State and federal law does not permit bypassing of raw wastewater; therefore, steps must be taken to ensure that raw wastewater does not discharge during construction. If a sanitary sewer overflow or bypass occurs, report the appropriate information to the department's Northeast Regional Office per 10 CSR 20-7.015(9)(G).
5. The completed project shall be field tested to verify actual pumped volume of each dose. The timer controls shall be set to ensure a dosing rate not to exceed the allowable rate of 0.15 gallons per square foot per day for drip system 2 and 0.2 gallons per square foot per day for drip system 1.
6. In addition to the requirements for a construction permit, 10 CSR 20-6.200 requires land disturbance activities of one acre or more to obtain a Missouri state operating permit to discharge stormwater. The permit requires best management practices sufficient to control runoff and sedimentation to protect waters of the state. Land disturbance permits will only be obtained by means of the department's ePermitting system available online at <https://dnr.mo.gov/data-e-services/missouri-gateway-environmental-management-mogem>. See <https://dnr.mo.gov/data-e-services/water/electronic-permitting-epermitting> for more information.
7. A United States Army Corps of Engineers (USACE) Clean Water Act Section 404 Department of the Army permit and a Section 401 Water Quality Certification issued by the department may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied or notification is provided that no Section 404 permit is required by the USACE. You must contact your local USACE district since they determine what waters are jurisdictional and which permitting requirements may apply. You may call the department's Water Protection Program, Operating Permits Section at 573-522-4502 for more information. See <https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/section-401-water-quality> for more information.

8. All construction must adhere to applicable 10 CSR 20-8 (Chapter 8) requirements listed below.
  - The distance between wastewater pumping stations and all potable water sources shall be at least 50 feet in accordance with 10 CSR 23-3.010(1)(B). 10 CSR 20-8.130(2)(D)
  - Sewers shall be laid at least 50 feet in a horizontal direction from any existing or proposed public water supply well or other water supply sources or structures. Sewers must also comply with 10 CSR 23-3.010. 10 CSR 20-8.120(5)(B); 10 CSR 20-8.125(4)(F).
  - The minimum diameter sewer main pipe shall not be less than four inches. 10 CSR 20-8.125(7)(A)1.
  - All sewers shall be designed and constructed to give mean velocities, when flowing full, of not less than two feet per second. 10 CSR 20-8.120(3)(A)1.; 10 CSR 20-8.125(7)(A)2.
  - All sewers shall either be covered with at least 36 inches of soil, or sufficient insulated with other material to prevent freezing and to protect them from superimposed loads. 10 CSR 20-8.120(3)(A)2.
  - Flood protection shall apply to new construction and to existing facilities undergoing major modification. The wastewater facility structures, electrical equipment, and mechanical equipment shall be protected from physical damage by not less than the 100-year flood elevation. 10 CSR 20-8.140(2)(B)
  - Unless another distance is determined by the Missouri Geological Survey or by the department's Public Drinking Water Branch, the minimum distance between wastewater treatment facilities and all potable water sources shall be at least 300 feet. 10 CSR 20-8.140(2)(C)1.
  - Facilities shall be readily accessible by authorized personnel from a public right-of-way at all times. 10 CSR 20-8.140(2)(D)
  - All wastewater treatment facilities shall be provided with an alternate source of electric power or pumping capability to allow continuity of operation during power failures. 10 CSR 20-8.140(7)(A)1.
  - Electrical systems and components in raw wastewater or in enclosed or partially enclosed spaces where hazardous concentrations of flammable gases or vapors that are normally present, shall comply with the NFPA 70 *National Electric Code (NEC)* (2017 Edition), as approved and published August 24, 2016, requirements for Class I, Division 1, Group D locations. 10 CSR 20-8.140(7)(B)
  - An audiovisual alarm or a more advanced alert system, with a self-contained power supply, capable of monitoring the condition of equipment whose failure could result in a violation of the operating permit, shall be provided for all wastewater treatment facilities. 10 CSR 20-8.140(7)(C)

- No piping or other connections shall exist in any part of the wastewater treatment facility that might cause the contamination of a potable water supply. 10 CSR 20-8.140(7)(D)1.
- Where a potable water supply is to be used for any purpose in a wastewater treatment facility other than direct connections, a break tank, pressure pump, and pressure tank or a reduced pressure backflow preventer consistent with the department's Public Drinking Water Branch shall be provided. 10 CSR 20-8.140(7)(D)3.A.
- For indirect connections, a sign shall be permanently posted at every hose bib, faucet, hydrant, or sill cock located on the water system beyond the break tank or backflow preventer to indicate that the water is not safe for drinking. 10 CSR 20-8.140(7)(D)3.B.
- Where a separate non-potable water supply is to be provided, a break tank will not be necessary, but all system outlets shall be posted with a permanent sign indicating the water is not safe for drinking. 10 CSR 20-8.140(7)(D)4.
- A means of flow measurement shall be provided at all wastewater treatment facilities. 10 CSR 20-8.140(7)(E)
- Fencing. Enclose the facility site with a fence designed to discourage the entrance of unauthorized persons and animals; 10 CSR 20-8.140(8)(A)
- Subsurface systems shall—
  - Exclude unstabilized fill and soils that have been highly compacted and/or disturbed, such as old road beds, foundations, or similar things; 10 CSR 20-8.200(7)(A)1.A.
  - Provide adequate surface drainage where slopes are less than two percent; 10 CSR 20-8.200(7)(A)1.B.
  - Provide surface and subsurface water diversion where necessary, such as a curtain or perimeter drain; 10 CSR 20-8.200(7)(A)1.C. and
  - Have a ten-foot buffer from the property line. 10 CSR 20-8.200(7)(A)1.D.
- The vertical separation between the bottom of the drip lines and/or the trench and a limiting layer, including but not limited to, bedrock; restrictive horizon; or seasonal high water table, shall be no less than:
  - Twelve inches for systems dispersing secondary or higher quality effluent; 10 CSR 20-8.200(7)(A)2.B.
- Subsurface systems shall be, at a minimum, preceded by preliminary treatment. 10 CSR 20-8.200(7)(B)
- Loading rates shall not exceed the values assigned by the site and soil evaluation. 10 CSR 20-8.200(7)(C)
- The location and size of the drains and buffers must be factored into the total area required for the drip dispersal system. 10 CSR 20-8.200(9)(A)1.

- The drip dispersal lines shall be placed at a minimum depth of six inches below the surface. 10 CSR 20-8.200(9)(B)1.
  - Emitters and drip dispersal lines shall be placed at a minimum on a two-foot spacing to achieve even distribution of the wastewater and maximum utilization of the soil. 10 CSR 20-8.200(9)(B)2.
9. Upon completion of construction:
- A. The ALLIED PROPERTY PARTNERS, LLC, will become the continuing authority for operation and maintenance of these facilities;
  - B. Submit an electronic copy of the as-built plans if the project was not constructed in accordance with previously submitted plans and specifications; and
  - C. Submit the Statement of Work Completed form to the department in accordance with 10 CSR 20-6.010(5)(N) (<https://dnr.mo.gov/document-search/wastewater-construction-statement-work-completed-mo-780-2155>) to the Engineering Section of the Water Protection Program 60 days prior to operation. The operating permit application fee has been paid.

#### **IV. REVIEW SUMMARY**

##### **1. CONSTRUCTION PURPOSE**

The project is to construct a new WWTF to treat domestic wastewater from a residential development with a total of 36 homes, including 33 mobile homes and 3 two-bedroom houses.

##### **2. FACILITY DESCRIPTION**

The proposed Allied Property Partners, LLC, WWTF will include 36 individual Aerobic Treatment Units (ATUs), a collection system, and two wastewater drip systems.

The WWTF is located at 17297 Pike 471, Bowling Green, Pike County, Missouri. The facility has a design average flow of 10,620 gpd and serves a hydraulic population equivalent of approximately 106 people using common base of 100 gallons per capita per day.

### **3. COMPLIANCE PARAMETERS**

The proposed project is required to meet the requirements of MOG823xxx with an expiration date of August 24, 2027. Operating permit number MOG823251 has been assigned for this facility. See the Operating Permit section below regarding requirements for issuance of the operating permit.

### **4. REVIEW of MAJOR TREATMENT DESIGN CRITERIA**

#### **Construction will cover the following items:**

- Components are designed for a design average flow of 10,620 gpd of domestic wastewater.
- Aerobic Treatment Units (ATUs) – Each home will have Hoot LA500 ATU. The LA 500 is an NSF standard 40 certified unit and capable of treatment 500 gpd domestic wastewater to meet secondary treatment standards. The unit consists of pretreatment, aeration, and final clarification, and is equipped with motors, blowers, controls, housing, diffuser bars and other necessary internal piping, mechanical equipment, and electrical controls.
- Collection System – Approximately 1,950 ft of 4” PVC Schedule 40 sewer lines.
- Pump Tanks –
  - Tank 1 - The tank 1 inside dimensions will be 19’6” wide x 12’ long x 9’ deep. The tank working volume (WV) will be calculated from 1.0’ above the floor (pump on depth) to 6’ above the floor giving a working depth of 5’. WV1 at 5’ working depth has a storage capacity of 8,752 gallons.
  - Tank 2 - The tank 2 inside dimensions will be 9’6” wide x 12’ long x 9’ deep. The tank WV will be calculated from 1.0’ above the floor (pump on depth) to 6’ above the floor giving a working depth of 5’. The WV2 at 5’ working depth has a storage capacity of 4,264 gallons.
  - The pump control panels shall include a motor contactor, circuit breaker, timer, event counter, and audio/visual alarms.
  - System 1 Pump - The pump for system 1 will be capable of delivering 67 gpm at 68’ of TDH.
  - System 2 Pump - The pump for system 2 will be capable of delivering 35 gpm at 94’ of TDH.

- Subsurface Soil Dispersal System – The soils at this site are rated for 0.15-0.2 gallons per day per square foot (gpd/ft<sup>2</sup>). The facility is utilizing different loading rates based on the soils report for the different zones. Soil morphology review was conducted during the construction permit application review and on-site soils were determined to be acceptable for this system. The soil investigation was completed by Mitch Feyerherm, Certified Soil Scientist with On-Site Soils, Inc. on August 25, 2023.
  - Soils Report. In the soils investigation, there were 6 pits dug over the entirety of the site for observation. Test pit 3 is located inside the boundary of absorption field 1 and test pit 4 inside of absorption field 2.
    - Soils were found extremely variable across the site and the report recommended a proper engineering and installation of the onsite wastewater treatment system.
    - Test Pit 3 - The soils consist of 22” of class III soils underlain by class IVB soils to the 51” pit depth. The depth to seasonal high water table is in the 13” range. The hydraulic loading rate (HLR) for drip was 0.2 gpd/ft<sup>2</sup> to 22” below the surface.
    - Test Pit 4 - The soils consist of 22” of class III soils underlain by class IVB soils to the 52” pit depth. The depth to seasonal high water table is in the 14” range. The HLR for drip was 0.2 gpd/ft<sup>2</sup> to 14” and 0.15 gpd/ft<sup>2</sup> from 14 to 22” below the surface.
    - Due to shallow depth to unsuitable IVB textures and indicators of a seasonal high water table across the site, the soil report recommended installation of an interceptor structure upslope of absorption fields to divert surface and subsurface flows.
  - HLR used in the design was at 0.2 gpd/ft<sup>2</sup> for absorption field 1 and 0.15 gpd/ft<sup>2</sup> for adsorption field 2.
  - An interceptor curtain drain trench will be constructed 10’ horizontally above the drip fields from 1” clean rock over a 4” perforated plastic tile to direct surface water away from the absorption area. The interceptor drains will be placed 36” below grade and daylighted downslope.
  - Drip Systems – Two drip fields will be installed to serve a total design average flow of 10,620 gpd. The drip field 1 will serve 23 mobile homes and 3 two-bedroom houses with a design average flow of 7,620 gpd. The drip field 2 will serve 10 mobile homes with a design average flow of 3,000 gpd.



- Drip Field 1 – At the design flow of 7,620 gpd and loading rate of 0.2 gpd/ft<sup>2</sup>, the provided area of field 1 is 38,100 ft<sup>2</sup>. The minimum drip line installed shall be 19,050 lf (38,100 ft<sup>2</sup> / 2 ft wide drip area). There will be 76 laterals 251' long spaced 2' on-center. There will be four zones of 19 lateral lines in each zone. A mechanical index control valve will rotate the flow cycles to each zone supply line. The supply and return manifold(s) shall be 2.5" PVC Sch 40 solid wall pipe placed a minimum of 4" below the drip lines. An air/vacuum relief valve will be placed in a valve box per plans at the high elevation of both supply and return manifolds for each zone.
- Drip System 2 – At the design flow of 3,000 gpd and loading rate of 0.15 gpd/ft<sup>2</sup>, the provided area for drip field 2 is 20,000 ft<sup>2</sup>. The minimum drip line installed shall be 10,000 lf (20,000 ft<sup>2</sup> / 2 ft wide drip area). There will be 36 laterals 280' long and made from (72) - 140' long dripline runs spaced 2' on-center and looped on one end to form the 280' long laterals. There will be four zones of 9 lateral lines in each zone. A mechanical index control valve will rotate the flow cycles to each zone supply line. The supply and return manifold(s) shall be 1.5" PVC Sch 40 solid wall pipe placed a minimum of 4" below the drip lines. An air/vacuum relief valve will be placed in a valve box per plans at the high elevation of both supply and return manifolds for each zone.
- The drip line shall be Netafim Bioline with pressure compensated 0.42 GPH emitters spaced every 2' and installed at 6" deep.
- Emergency Power – In the event of power outage, a 3,000-watt standby portable generator will be utilized to power the wastewater pumps in the pump tanks. A manual transfer switch will be installed at the power supply meter base to the tanks to allow for quick and safe generator hook-up and use.

## **5. OPERATING PERMIT**

After completion of construction project submit a statement of work completed, as-builts if the project was not constructed in accordance with previously submitted plans and specifications. Missouri State Operating Permit, General Permit MOG823251, will be issued after receipt of the above documents.

## **V. NOTICE OF RIGHT TO APPEAL**

If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission (AHC) pursuant to Section 621.250 RSMo. To appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal should be directed to:

Administrative Hearing Commission  
U.S. Post Office Building, Third Floor  
131 West High Street, P.O. Box 1557  
Jefferson City, MO 65102-1557  
Phone: 573-751-2422  
Fax: 573-751-5018  
Website: <https://ahc.mo.gov>

Sieu T. Dang, P.E.  
Engineering Section  
[sieu.dang@dnr.mo.gov](mailto:sieu.dang@dnr.mo.gov)

## **APPENDIX**

- **Site Plan**





MISSOURI DEPARTMENT OF NATURAL RESOURCES  
 WATER PROTECTION PROGRAM  
**APPLICATION FOR CONSTRUCTION PERMIT –  
 WASTEWATER TREATMENT FACILITY**

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED <b>1000</b>	CHECK NO. <b>3919</b>
DATE RECEIVED <b>7.1.24</b> <b>YMH</b>	

**APPLICATION OVERVIEW**

The Application for Construction Permit – Wastewater Treatment Facility form has been developed in a modular format and consists of Part A and B. **All applicants must complete Part A.** Part B should be completed for applicants who currently land-apply wastewater or propose land application for wastewater treatment. **Please read the accompanying instructions before completing this form. Submittal of an incomplete application may result in the application being returned.**

**PART A – BASIC INFORMATION**

**1.0 APPLICATION INFORMATION** (Note – If any of the questions in this section are answered NO, this application may be considered incomplete and returned.)

- 1.1 Is this a Federal/State funded project?  YES  N/A Funding Agency: \_\_\_\_\_ Project #: \_\_\_\_\_
- 1.2 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?  
 YES Date of Approval: \_\_\_\_\_  N/A
- 1.3 Has the department approved the proposed project's facility plan\*?  
 YES Date of Approval: \_\_\_\_\_  NO (If No, complete No. 1.4.)
- 1.4 [Complete only if answered No on No. 1.3.] Is a copy of the facility plan\* for wastewater treatment facilities included with this application?  
 YES  NO  Exempt because Private no-discharge facility
- 1.5 Is a copy of the appropriate plans\* and specifications\* included with this application?  
 YES Denote which form is submitted:  Hard copy  Electronic copy (See instructions.)  NO
- 1.6 Is a summary of design\* included with this application?  YES  NO
- 1.7 Has the appropriate operating permit application (A, B, or B2) been submitted to the department?  
 YES Date of submittal: \_\_\_\_\_  
 Enclosed is the appropriate operating permit application and fee submittal. Denote which form:  A  B  B2  
 N/A: However, In the event the department believes that my operating permit requires revision to permit limitation such as changing equivalent to secondary limits to secondary limits or adding total residual chlorine limits, please share a draft copy prior to public notice?  YES  NO
- 1.8 Is the facility currently under enforcement with the department or the Environmental Protection Agency?  YES  NO
- 1.9 Is the appropriate fee or JetPay confirmation included with this application?  YES  NO  
 See Section 7.0

\* Must be affixed with a Missouri registered professional engineer's seal, signature and date.

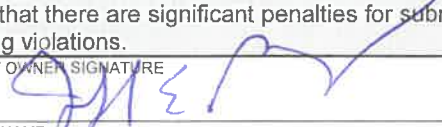
**2.0 PROJECT INFORMATION**

2.1 NAME OF PROJECT Allied Property Partners, LLC - Bowling Green	2.2 ESTIMATED PROJECT CONSTRUCTION COST \$
2.3 PROJECT DESCRIPTION this is a proposed 33 hook-up mobile park with three 2-bedroom houses and two sub-surface absorption fields.	
2.4 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION Subsurface absorption.	
2.5 DESIGN INFORMATION A. Current population: <u>n/a</u> ; Design population: <u>n/a</u> B. Actual Flow: <u>4,320</u> gpd; Design Average Flow: <u>10.6K</u> gpd; Actual Peak Daily Flow: <u>10.6K</u> gpd; Design Maximum Daily Flow: <u>10.6K</u> gpd; Design Wet Weather Event: <u>N/A</u>	
2.6 ADDITIONAL INFORMATION A. Is a topographic map attached? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO B. Is a process flow diagram attached? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	

RECEIVED

JUL 01 2024

Water Protection Program

<b>3.0 WASTEWATER TREATMENT FACILITY</b>				
NAME Allied Property Partners, LLC - Bowling Green		TELEPHONE NUMBER WITH AREA CODE (573)324-6860		E-MAIL ADDRESS jeff@alliedengineering.us
ADDRESS (PHYSICAL) 17297 Pike 471	CITY Bowling Green	STATE MO	ZIP CODE 63334	COUNTY Pike
Wastewater Treatment Facility: Mo- (Outfall 1 Of 1 )				
3.1 Legal Description: <u>SW ¼, NW ¼, NE ¼, Sec. 27, T 53N, R 3W</u> (Use additional pages if construction of more than one outfall is proposed.)				
3.2 UTM Coordinates Easting (X): <u>652773</u> Northing (Y): <u>4356206</u> For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)				
3.3 Name of receiving streams: <u>Peno Creek</u>				
<b>4.0 PROJECT OWNER</b>				
NAME Allied Property Partners, LLC		TELEPHONE NUMBER WITH AREA CODE (573)470-7447		E-MAIL ADDRESS jeff@alliedengineering.us
ADDRESS PO Box 22	CITY Silex	STATE MO	ZIP CODE 63377	
<b>5.0 CONTINUING AUTHORITY:</b> A continuing authority is a company, business, entity or person(s) that will be operating the facility and/or ensuring compliance with the permit requirements.				
NAME Allied Property Partners, LLC		TELEPHONE NUMBER WITH AREA CODE (573)324-6860		E-MAIL ADDRESS jeff@alliedengineering.us
ADDRESS PO Box 22	CITY Silex	STATE MO	ZIP CODE 63377	
5.1 A letter from the continuing authority, if different than the owner, is included with this application. <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A				
5.2 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A MISSOURI PUBLIC SERVICE COMMISSION REGULATED ENTITY.				
A. Is a copy of the certificate of convenience and necessity included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
5.3 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A PROPERTY OWNERS ASSOCIATION.				
A. Is a copy of the as-filed restrictions and covenants included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
B. Is a copy of the as-filed warranty deed, quitclaim deed or other legal instrument which transfers ownership of the land for the wastewater treatment facility to the association included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
C. Is a copy of the as-filed legal instrument (typically the plat) that provides the association with valid easements for all sewers included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
D. Is a copy of the Missouri Secretary of State's nonprofit corporation certificate included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
<b>6.0 ENGINEER</b>				
ENGINEER NAME / COMPANY NAME Jeff E. Browning, PE		TELEPHONE NUMBER WITH AREA CODE (573)470-7447		E-MAIL ADDRESS jeff@alliedengineering.us
ADDRESS P.O. Box 22	CITY Silex	STATE MO	ZIP CODE 63377	
<b>7.0 APPLICATION FEE</b>				
<input checked="" type="checkbox"/> CHECK NUMBER <input type="checkbox"/> JETPAY CONFIRMATION NUMBER				
<b>8.0 PROJECT OWNER:</b> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.				
PROJECT OWNER SIGNATURE 				
PRINTED NAME Jeff E. Browning			DATE 6/11/2024	
TITLE OR CORPORATE POSITION Member		TELEPHONE NUMBER WITH AREA CODE (573)470-7447		E-MAIL ADDRESS jeff@alliedengineering.us
Mail completed copy to: MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM P.O. BOX 176 JEFFERSON CITY, MO 65102-0176				
<b>END OF PART A.</b>				
<b>REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHETHER PART B NEEDS TO BE COMPLETE.</b>				

**PART B – LAND APPLICATION ONLY**

**(Submit only if the proposed construction project includes land application of wastewater.)**

**8.0 FACILITY INFORMATION**

8.1 Type of wastewater to be irrigated:  Domestic  State/National Park  Seasonal business  
 Municipal  Municipal with a pretreatment program or significant industrial users  
 Other (explain) \_\_\_\_\_

8.2 Months when the business or enterprise will operate or generate wastewater:  
 12 months per year  Part of the year (list months): \_\_\_\_\_

8.3 This system is designed for:  
 No-discharge.  
 Partial irrigation when feasible and discharge rest of time.  
 Irrigation during recreational season, April – October, and discharge during November – March.  
 Other (explain) \_\_\_\_\_.

**9.0 STORAGE BASINS**

9.1 Number of storage basins: n/a (Use additional pages if greater than three basins.)

9.2 Type of basins:  Steel  Concrete  Fiberglass  Earthen  Earthen with membrane liner

9.3 Storage basin dimensions at inside top of berm (feet). Report freeboard as feet from top of berm to emergency spillway or overflow pipe.  
Basin #1: Length \_\_\_\_\_ Width \_\_\_\_\_ Depth \_\_\_\_\_ Freeboard \_\_\_\_\_ Depth \_\_\_\_\_ Safety \_\_\_\_\_ % Slope \_\_\_\_\_  
Basin #2: Length \_\_\_\_\_ Width \_\_\_\_\_ Depth \_\_\_\_\_ Freeboard \_\_\_\_\_ Depth \_\_\_\_\_ Safety \_\_\_\_\_ % Slope \_\_\_\_\_  
Basin #3: Length \_\_\_\_\_ Width \_\_\_\_\_ Depth \_\_\_\_\_ Freeboard \_\_\_\_\_ Depth \_\_\_\_\_ Safety \_\_\_\_\_ % Slope \_\_\_\_\_

9.4 Storage Basin operating levels (report as feet below emergency overflow level).  
Basin #1: Maximum operating water level \_\_\_\_\_ ft Minimum operating water level \_\_\_\_\_ ft  
Basin #2: Maximum operating water level \_\_\_\_\_ ft Minimum operating water level \_\_\_\_\_ ft  
Basin #3: Maximum operating water level \_\_\_\_\_ ft Minimum operating water level \_\_\_\_\_ ft

9.5 Design depth of sludge in storage basins.  
Basin #1: \_\_\_\_\_ ft Basin #2: \_\_\_\_\_ ft Basin #3: \_\_\_\_\_ ft

9.6 Existing sludge depth, if the basins are currently in operation.  
Basin #1: \_\_\_\_\_ ft Basin #2: \_\_\_\_\_ ft Basin #3: \_\_\_\_\_ ft

9.7 Total design sludge storage: n/a dry tons and \_\_\_\_\_ cubic feet

**10.0 LAND APPLICATION SYSTEM**

10.1 Number of irrigation sites n/a Total Acres \_\_\_\_\_ Maximum % field slopes \_\_\_\_\_  
Location: \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ Sec. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_ Acres  
Location: \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ Sec. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_ Acres  
Location: \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ ¼, \_\_\_\_\_ Sec. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_ Acres  
(Use additional pages if greater than three irrigation sites.)

10.2 Type of vegetation:  Grass hay  Pasture  Timber  Row crops  
 Other (describe) \_\_\_\_\_

10.3 Wastewater flow (dry weather) gallons per day: Average annual 2036 Seasonal 3415 Off-season 0

10.4 Land application rate (design flow including 1-in-10 year storm water flows):  
Design: \_\_\_\_\_ inches/year \_\_\_\_\_ inches/hour \_\_\_\_\_ inches/day \_\_\_\_\_ inches/week  
Actual: \_\_\_\_\_ inches/year \_\_\_\_\_ inches/hour \_\_\_\_\_ inches/day \_\_\_\_\_ inches/week

10.5 Total irrigation per year (gallons): Design: \_\_\_\_\_ gal Actual: \_\_\_\_\_ gal

10.6 Actual months used for irrigation (check all that apply):  
 Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

10.7 Land application rate is based on:  
 Hydraulic Loading  Other (describe) \_\_\_\_\_  
 Nutrient Management Plan (N&P) If N&P is selected, is the plan included?  YES  NO