

**STATE OF MISSOURI**  
**DEPARTMENT OF NATURAL RESOURCES**

MISSOURI CLEAN WATER COMMISSION



**CONSTRUCTION PERMIT**

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

Timber Ridge Builders 5541 South Route K Columbia, MO 65201
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for the construction of (described facilities):

See attached.
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Permit Conditions:

See attached.
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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.

March 25, 2015  
Effective Date

March 24, 2017  
Expiration Date

Sara Parker Pauley, Director, Department of Natural Resources

John Madras, Director, Water Protection Program

## **CONSTRUCTION PERMIT**

### **COLLECTION SYSTEM:**

This project consists of the installation and construction of approximately 4300 linear feet (lf) of 8-inch polyvinyl chloride (PVC) Standard Dimension Ratio (SDR)-35 gravity sewer lines with approximately 26 manholes and 6 lampholes and all the necessary appurtenances to make a complete and usable wastewater collection system to serve an estimated population equivalent of 252 and an estimated design average flow of 25,160 gallons per day. The project will also include general site work appropriate to the scope and purpose of the project.

These activities will be in the city of St. Robert, Pulaski County and discharge to an existing sewer system to be treated at the Pulaski County Sewer District #1, Weeks Hollow WWTF, Missouri State Operating Permit No. MO-0111716. Mr. Gary Porter, Chairman, with Pulaski County Sewer District #1 provided an acceptance letter dated March 4, 2014.

### **PERMIT CONDITIONS:**

1. All construction shall be in accordance with the plans and specifications submitted by Mayhew Surveying and Engineering as follows:
  - Plans and specifications received on March 5, 2015 by the department and signed and sealed by Donald B. Mayhew, P.E. on December 22, 2014.
2. The department must be contacted in writing prior to making any changes to the approved 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(8).
3. 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 Southeast Regional Office per 10 CSR 20-7.015(9)(E)2.
4. This construction permit is invalid for projects required to comply with the requirements contained in 10 CSR 20-4, "Grants and Loans".
5. Protection of drinking water supplies shall be in accordance with 10 CSR 20-8.120(10). "There shall be no physical connections between a public or private potable water supply system and a sewer, or appurtenance thereto which would permit the passage of any wastewater or polluted water into the potable supply. No water pipe shall pass through or come in contact with any part of a sewer manhole."

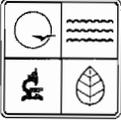
- A. Sewers in relation to water works structures shall meet the requirements of 10 CSR 23-3.010 with respect to minimum distances from public water supply wells or other water supply sources and structures.
- B. Sewer mains shall be laid at least 10 feet horizontally from any existing or proposed water main. The distances shall be measured edge-to-edge. In cases where it is not practical to maintain a 10 foot separation, the department may allow a deviation on a case-by-case basis, if supported by data from the design engineer. Such a deviation may allow installation of the sewer closer to a water main, provided that the water main is in a separate trench or on an undisturbed earth shelf located on either side of the sewer and at an elevation so the bottom of the water main is at least 18 inches above the top of the sewer. If it is impossible to obtain proper horizontal and vertical separation as described above for sewers, the sewer must be constructed of slip-on or mechanical joint pipe or continuously encased and be pressure tested to 150 pounds per square inch to assure water tightness.
- C. Manholes shall be located with the top access at or above grade level.
- D. Manholes should be located at least 10 feet horizontally from any existing or proposed water main.
- E. Sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. When it is impossible to obtain proper vertical separation as stipulated above, one of the following methods must be specified:
  - 1) The sewer shall be designed and constructed equal to the water pipe and shall be pressure tested to assure water tightness prior to backfilling; or
  - 2) Either the water main or sewer line may be continuously encased or enclosed in a watertight carrier pipe which extends 10 feet on both sides of the crossing, measured perpendicular to the water main. The carrier pipe shall be of materials approved by the department for use in water main construction.

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 may only be obtained by means of the department's ePermitting system available online at [www.dnr.mo.gov/env/wpp/epermit/help.htm](http://www.dnr.mo.gov/env/wpp/epermit/help.htm). See [www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm](http://www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm) for more information.
7. A United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) issued by the department or permit waiver may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied. If construction activity will disturb any land below the ordinary high water mark of jurisdictional waters of the U.S. then a 404/401 will be required. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the department's Water Protection Program at 573-751-1300 for more information. See [www.dnr.mo.gov/env/wpp/401/](http://www.dnr.mo.gov/env/wpp/401/) for more information.
8. In accordance with 10 CSR 20-6.010(6)(B), submit the enclosed form Application for Letter of Authorization – Sewer Extension to the department following completion of construction. Submit an electronic copy of the as-built drawings with this form if the project was not constructed in accordance with previously submitted plans and specifications.
9. Upon completion of construction, the Pulaski County Sewer District #1 will become the continuing authority for operation, maintenance, and modernization of these facilities.

**Lei Hou, PE**  
**Engineering Section**  
**[lei.hou@dnr.mo.gov](mailto:lei.hou@dnr.mo.gov)**

RECEIVED

AP 20788 014527



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH  
P.O. BOX 176 JEFFERSON CITY MO 65102-0176

(SEE MAP FOR APPROPRIATE REGIONAL OFFICE)  
**APPLICATION FOR CONSTRUCTION PERMIT -  
SEWER EXTENSION**

**FOR DEPARTMENT USE ONLY**

PERMIT NO. MO	
FEE RECEIVED 7300	DATE RECEIVED 3-5-15

DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS.  
**NOTE:** A CONSTRUCTION PERMIT FEE MUST ACCOMPANY THIS APPLICATION. (PLEASE FILL IN ALL BLANKS)

1.1 NAME OF PROJECT Brush Creek Phase 3 Sewer Ext.	SRF, SG, EPA GRANT NUMBER (IF APPLICABLE) N/A
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1.2 LOCATION OF PROJECT Hwy Y, St. Robert, Mo; SW NE Sec. 21, T36N, R12W	COUNTY Pulaski
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2.1 OWNER'S NAME Timber Ridge Builders - Mr. Don Howser	TELEPHONE NUMBER 573-449-8300	EMAIL ADDRESS
ADDRESS 5541 South Route K	CITY Columbia	STATE MO
		ZIP CODE 65201

2.2 CONTINUING AUTHORITY NAME Pulaski County Public Sewer District No. 1			
ADDRESS 531 Old Route 66, Suite A	CITY St. Robert	STATE MO	ZIP CODE 65584

3.1 BRIEF DESCRIPTION

This project is the construction of 4306 lf of new 8" PVC gravity sewer with 26 manholes and 6 lampholes.

ENGINEER Don Mayhew, PLS, PE	TELEPHONE NUMBER 573-216-1527	EMAIL ADDRESS don@usmo.com
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3.2 DESIGN INFORMATION

A. POPULATION OR NUMBER OF LOTS TO BE SERVED BY THIS EXTENSION: 68 single family residential lots

B. ESTIMATED FLOW TO BE CONTRIBUTED BY THIS EXTENSION: 25,160 gpd

C. INDUSTRIAL WASTES: TYPE N/A FLOW N/A

D. RECEIVING SEWER: SIZE 8" CAPACITY 400,000 gpd

3.3 RECEIVING TREATMENT FACILITY NAME PCSD #1 WWTP	TELEPHONE NUMBER 1.573.336.5880	EMAIL ADDRESS
PERMIT NUMBER	REMAINING CAPACITY	

4.1 HAS THE CONTINUING AUTHORITY THAT OPERATES THE TREATMENT FACILITY AND OR COLLECTION SYSTEM APPROVED OR AGREED TO ACCEPT THE ADDITIONAL SEWAGE FLOW?  
 YES  NO

4.2 I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THE APPLICATION, AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE, COMPLETE, AND ACCURATE, AND IF GRANTED THIS PERMIT, I AGREE TO ABIDE BY THE MISSOURI CLEAN WATER LAW AND ALL RULES, REGULATIONS, ORDERS AND DECISIONS, SUBJECT TO ANY LEGITIMATE APPEAL AVAILABLE TO APPLICANT UNDER THE MISSOURI CLEAN WATER LAW, OF THE MISSOURI CLEAN WATER COMMISSION.

APPLICANT'S SIGNATURE (SEE INSTRUCTIONS) 	TELEPHONE NUMBER 573 449 8300	EMAIL ADDRESS cdrems@trbusa.com	DATE 10 Feb 15
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NAME PRINTED Chris Drems	TITLE OR CORPORATE POSITION CFO
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