

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

MISSOURI CLEAN WATER COMMISSION



**CONSTRUCTION PERMIT**

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

City of Belton  
ATTN: Zachary Matteo, City Engineer  
520 Main Street  
Belton, MO 64012

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 17, 2014  
Effective Date

  
Sara Parker Pauley, Director, Department of Natural Resources

December 16, 2015  
Expiration Date

  
Director, Water Protection Program

## **CONSTRUCTION PERMIT**

### **COLLECTION SYSTEM:**

This project consists of the installation and construction of approximately 1159 linear feet (lf) of 15-inch (15”) polyvinyl chloride (PVC) Standard Dimension Ratio (SDR)-26 and 1503 linear feet (lf) of 15-inch (15”) polyvinyl chloride (PVC) AWWA C-905 DR-18 gravity sewer lines with approximately 10 manholes and all the necessary appurtenances to make a complete and usable wastewater collection system. This trunk sewerline is to provide adequate capacity for future development in this portion of the Oil Creek Watershed. The project includes the abandonment and demolition of the Cedar Tree Lift Station and designated appurtenances. The project will also include general site work appropriate to the scope and purpose of the project.

These activities will be in the vicinity of I-49 near Springdale Lake in Belton, Cass County and discharge to an existing sewer system to be treated at the LBVSD, Atherton Wastewater Treatment Facility, Missouri State Operating Permit No. MO-0101087. Mr. David Lilly, PE, district engineer, with Little Blue Valley Sewer District provided an acceptance letter dated July 29, 2014.

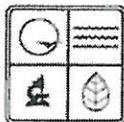
### **PERMIT CONDITIONS:**

1. All construction shall be in accordance with the plans and specifications submitted by Justin Likes, PE of Trekk Design Group, LLC as follows:
  - Plans received on August 22, 2014 and signed and sealed by Justin Likes, P.E. on August 18, 2014.
  - Certification Page of the Specifications received on November 26, 2014 and signed and sealed by Justin Likes, P.E. on November 26, 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 Kansas City 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 ten feet (10’) 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 ten foot (10’) 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 should be located at least ten feet (10’) horizontally from any existing or proposed water main.
  - D. 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 (1) 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 ten feet (10’) 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 (1) 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 with this form.
9. Upon completion of construction, the City of Belton will become the continuing authority for operation, maintenance, and modernization of these facilities.

**Keith Forck, PE**  
**Engineering Section**  
**[keith.forck@dnr.mo.gov](mailto:keith.forck@dnr.mo.gov)**



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	DATE RECEIVED

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 <i>CEDAR TREE LIFT STATION ABANDONMENT</i>	SFF, SG, EPA GRANT NUMBER (IF APPLICABLE)
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1.2 LOCATION OF PROJECT <i>BELTON, MO [ BETWEEN 163rd &amp; Rte 58 interchanges, in the vicinity of Larkspur &amp; Sprinkle ]</i>	COUNTY <i>CASS</i>
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2.1 OWNER'S NAME <i>CITY OF BELTON, MO</i>	TELEPHONE NUMBER <i>816-331-4331</i>	EMAIL ADDRESS <i>rryan@belton.org</i>
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ADDRESS <i>520 Main St.</i>	CITY <i>Belton</i>	STATE <i>MO</i>	ZIP CODE <i>64012</i>
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2.2 CONTINUING AUTHORITY NAME <i>SAME AS ABOVE</i>	
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ADDRESS	CITY	STATE	ZIP CODE
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3.1 BRIEF DESCRIPTION  
*THE CEDAR TREE LIFT STATION Abandonment project will improve sewer in Basins 4 & 9 in Belton, MO. THE improvements are located within Oil Creek WATERSHED and will allow future growth and development. The proposed sewer consists of: 1950 LF of 15" PVC, 10 NEW MANHOLES, and 39 LF of concrete encasement. 6 manholes, the existing 8" force main, and the Cedar tree lift station will be abandoned. Rip Rap will be installed on the bank of one drainage ditch crossing.*

ENGINEER <i>Justin W. Likes, PE</i>	TELEPHONE NUMBER <i>816-874-4661</i>	EMAIL ADDRESS <i>jlikes@trekllc.com</i>
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3.2 DESIGN INFORMATION

A. POPULATION OR NUMBER OF LOTS TO BE SERVED BY THIS EXTENSION: *2,000 persons @ Full development*

B. ESTIMATED FLOW TO BE CONTRIBUTED BY THIS EXTENSION: *No Additional flow [ @ULTIMATE DEVELOPMENT flow ≈ 4.5 cfs or 2.9 MGD ]*

C. INDUSTRIAL WASTES: TYPE *None* FLOW \_\_\_\_\_

D. RECEIVING SEWER: SIZE *15" for one segment, then 24"* CAPACITY *≈ 8.0 cfs for one segment then ≈ 17.0 cfs*

3.3 RECEIVING TREATMENT FACILITY NAME <i>Little Blue Valley Sewer District WWTP</i>	TELEPHONE NUMBER <i>(816)-796-9191</i>	EMAIL ADDRESS <i>Lbvstd.org</i>
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PERMIT NUMBER <i>MO-0101087</i>	REMAINING CAPACITY <i>6.0 MGD</i>
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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) <i>Zachary Matteo</i>	TELEPHONE NUMBER <i>816-331-4331</i>	EMAIL ADDRESS <i>zmatteo@belton.org</i>	DATE <i>8/28/14</i>
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NAME PRINTED <i>Zachary Matteo</i>	TITLE OR CORPORATE POSITION <i>City Engineer</i>
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## INSTRUCTIONS FOR FILLING OUT APPLICATION FOR CONSTRUCTION PERMIT – SEWER EXTENSION

Construction permit fees shall be tendered together with this application. Incomplete construction permit applications and related engineering documents will be returned by the department if they are not completed in the time frame established by the department in a comment letter to the owner. Construction permit fees for returned applications shall be forfeited. Construction permit fees for applications being processed by the department that are withdrawn by the applicant shall be forfeited. The construction permit fees are as follows:

- A. Seventy-Five Dollars (\$75) for a sewer extension under 1,000 feet long.
- B. Three Hundred Dollars (\$300) for a sewer extension over 1,000 feet long or for construction of a lift station.

Permittees proposing to build more than one construction unit are only required to pay the highest fee. Example: If two lift stations and 2,000 feet of sewer line are being constructed, the construction permit fee would only be the highest number of \$300. If 500 feet of sewer line and one lift station were being constructed, the fee would be \$300.

Different application and construction fees are applicable if a sewage treatment device is to be constructed.

- 1.1 Give the name of the project or the name of the subdivision in which the sewers are being constructed and funding number.
- 1.2 Describe the location by street name or give the most accurate alternative geographic information.
- 2.1 Legal name, contact information, and address of the owner or applicant.
- 2.2 Legal name and address of the continuing authority if different from owner or applicant (if same, write same). For more information on continuing authorities see Section (3) of 10 CSR 20-6.010, Construction and Operating Permits.
- 3.1 Briefly describe the project by providing the following information:
  - A. Total number of manholes.
  - B. Size of sewers and the total linear feet of each size.
  - C. Number of lift stations and design average and peak flow capacities of each lift station.
  - D. Size and length of force mains.
  - E. Name and contact information of the engineer.
- 3.2 Self-Explanatory
- 3.3 Provide the name, contact information, and permit number of the treatment facility. Also provide the remaining treatment facility capacity to ensure that the extension will not cause the treatment facility to be overloaded.
- 4.1 If the continuing authority has not agreed to accept the additional flow or in some cases to accept the sewer extension, this application will be considered incomplete.
- 4.2 All applications must be signed in one of the following ways:
  - A. For a corporation, by an officer of at least the level of plant manager.
  - B. For a partnership or sole proprietorship, by a general partner or the proprietor.
  - C. For a municipal, state, federal or other public facility, by either a principal executive officer or ranking public official.

This completed form, along with the construction permit fee, should be returned to the address shown at the top of page one of the application form.

If there are any questions concerning this form, please direct your questions to the appropriate Regional Office (see map) or to the Missouri Department of Natural Resources, Water Protection and Soil Conservation Division, Water Protection Program, Water Pollution Branch, P.O. Box 176, Jefferson City, MO 65102-0176.



## LITTLE BLUE VALLEY SEWER DISTRICT

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H.A. Jones Administration Building  
21101 East 78 Highway  
Independence, MO 64057  
(816) 796-7660  
FAX: (816) 796-5910

Atherton Wastewater Treatment Plant  
21208 East Old Atherton Road  
Independence, MO 64058  
(816) 796-9191  
FAX: (816) 796-3500

July 29, 2014

Justin Likes, P.E.  
Trek Design Group, LLC  
1441 E 104<sup>th</sup> Street, Suite 105  
Kansas City, MO 64131

Re: Cedar Tree Lift Station, Belton, Cass County, MO

Dear Mr. Likes,

This letter is to inform you that the Little Blue Valley Sewer District has reviewed the plans for the above referenced project. The new sewer lines associated with this work will connect to an existing City of Belton sanitary sewer which feeds into the District's interceptor sewer to be treated at the District's Atherton Wastewater Treatment Plant. The District agrees to receive and treat the domestic wastewater from the proposed sewer.

The Little Blue Valley Sewer District Atherton Wastewater Treatment Plant permit number is MO 0101087. The plant is rated for 52 million gallons per day (MGD). The average dry weather flow is 30 MGD, which gives an average excess capacity of 22 MGD. The average BOD loading for the plant is 64,000 lbs/day, with a design capacity of 76,328 lbs/day.

If you have any further questions, please give me a call at (816) 796-9191 Ext. 216.

Sincerely,

David Lilly, PE  
District Engineer

Cc, Jeff Shook, LBVSD  
file

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### MISSION:

"Our mission is to provide excellent wastewater services which protect the public health and improve the environment of our region."

### VISION:

"The Little Blue Valley Sewer District will be a strong partner in regional planning and resource sharing, anticipating and responding to both environmental and economic needs"