

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

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

Rolwes Development, LLC
13100 Manchester Rd, Ste. G65
St Louis, MO 63131

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.

March 13, 2015
Effective Date

March 12, 2017
Expiration Date

Sara Parker Pauley, Director, Department of Natural Resources

John Madras, Director, Water Protection Program

CONSTRUCTION PERMIT

COLLECTION SYSTEM:

The proposed wastewater collection system will consist of a conventional gravity sewer system with a lift station, and force main and which will carry raw wastewater to the receiving wastewater treatment facility.

Construction and installation of approximately of approximately 5132 linear feet (lf) of eight-inch polyvinyl chloride (PVC) gravity sewer lines with approximately 42 manholes, 1570 lf of four-inch PVC SDR-21 force mains with cleanouts and air release valves, one duplex lift station with each pump capable of operating at 108 gallons per minute (gpm) at 75.8 feet of total dynamic head (TDH), one portable generator, one concrete emergency storage tank, and all necessary appurtenances to make a complete and usable wastewater collection system to serve an estimated population equivalent of 245 and an estimated design average flow of 24,420 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 vicinity of Duello Rd. and Brookfield Crossing Dr. in Lake St. Louis, St. Charles County and discharge to an existing sewer system to be treated at the Duckett Creek Sanitary District, Treatment Plant #2, Missouri State Operating Permit No. MO-0116572. Mr. Matt Jaspering, with the PWS No. 2 of St. Charles County provided an acceptance letter dated January 9, 2015.

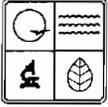
PERMIT CONDITIONS:

1. All construction shall be in accordance with the plans and specifications submitted by Bax Engineering Co. as follows:
 - Specifications received on February 5, 2015 and signed and sealed by Clifford Heitman, P.E. on December 23, 2014.
 - Plans received on February 5, 2015 and signed and sealed by Clifford Heitman, P.E. as follows: sheets 1-31, 31A dated December 23, 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 St. Louis 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 should be located at least 10 feet 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 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. See 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/ 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 PWSD No. 2 of St. Charles County will become the continuing authority for operation, maintenance, and modernization of these facilities.

Diane Reinhardt
Engineering Section
diane.reinhardt@dnr.mo.gov



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM
**APPLICATION FOR CONSTRUCTION PERMIT -
 SEWER EXTENSION**

RECEIVED
 WATER PROTECTION PROGRAM

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED \$300.00	CHECK NO. 1592
DATE RECEIVED 1/5/15	

C 100123
 AP 10000 CP 100
 1/5/15

NOTE ► PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM

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 Department of Natural Resources approved the proposed project's engineering report*?
 YES Date of Approval: _____ NO N/A
- 1.3 Is a copy of the appropriate plans* and specifications* included with this application? YES NO
- 1.4 Is a summary of design* included with this application? YES NO
- 1.5 Is the appropriate fee included with this application? (See instructions for appropriate fee.) YES NO

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

2.0 PROJECT INFORMATION

2.1 NAME OF PROJECT

Brookfield Crossing

ADDRESS	CITY	STATE	ZIP CODE	COUNTY
Duello Road and State Hwy N	Lake Saint Louis	MO	63367	St. Charles

2.2 Legal Description: ¼, ¼, ¼, Sec. 8&9, T 47N, R 2E

2.3 Project Components (check all that apply):
 Gravity sewers Pumping stations Force mains Alternative sewer system Other (Describe below.)

2.4 PROJECT DESCRIPTION

Constructing a public gravity sanitary sewer system consisting of 5,010 Lineal Feet of 8" P.V.C. and 41-48" diameter manholes. Flows are conveyed to the proposed lift station and pumped via approximately 1,570 feet of 4" force main to a manhole on site from Mason Glen.
 1. Lift station flow rates average daily flow - 24,420 GPD. peak hourly flow - 4,307 GPH, pump capacity - 108 GPM

2.5 DESIGN INFORMATION

- A. Population or number of lots to be served by this extension: 66 Single Family Residential Lots
- B. Estimated flow to be contributed by this extension: Design Average Flow: 24,420 gpd Design Peak Hourly Flow: 4,307 gph
- C. Industrial Wastes: Type: N/A Flow: N/A gpd
- D. Receiving Sewer: Size: 8 inches Capacity: 714 gpm

3.0 PROJECT OWNER

NAME Rolwes Development, LLC	TELEPHONE NUMBER WITH AREA CODE (314) 821-9600	E-MAIL ADDRESS ed2@rowlesco.com
ADDRESS 13100 Manchester Road, Ste G65	CITY St. Louis	STATE MO
		ZIP CODE 63131

4.0 CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the wastewater collection system.

NAME PWSD No. 2, St. Charles County, MO	TELEPHONE NUMBER WITH AREA CODE (636) 561-3737	E-MAIL ADDRESS mjaspering@alliancewater.com
ADDRESS 100 Water Drive	CITY O'Fallon	STATE MO
		ZIP CODE 63368

4.1 A letter from the continuing authority, if different than the owner, is included with this application. YES NO N/A

5.0 ENGINEER

ENGINEER NAME / COMPANY NAME Clifford L. Heitmann, Bax Engineering Company	TELEPHONE NUMBER WITH AREA CODE (636) 928-5552	E-MAIL ADDRESS cheitmann@baxengineering.com
ADDRESS 221 Point West Blvd	CITY St. Charles	STATE MO
		ZIP CODE 63301

6.0 RECEIVING WASTEWATER TREATMENT FACILITY

NAME Treatment Plant # 2, Duckett Creek Sanitary District	TELEPHONE NUMBER WITH AREA CODE (636) 441-1244	E-MAIL ADDRESS arbuckle@duckettcreek.com
MISSOURI STATE OPERATING PERMIT # MO-0116572	REMAINING CAPACITY (GPD) 4.17 Million GPD	

6.1 Has the receiving treatment facility agreed to accept the additional wastewater flow? YES NO

6.2 A letter from the receiving wastewater treatment facility, if different than the continuing authority, is included with this application.
 YES NO N/A

7.0 PROJECT OWNER: I hereby certify that I am familiar with the information contained in this application and 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 Missouri Clean Water Law.

PROJECT OWNER SIGNATURE


PRINTED NAME Edward Zigorowicz III	DATE 1/30/15
TITLE OR CORPORATE POSITION Land Mgr.	TELEPHONE NUMBER WITH AREA CODE 314-821-9600
E-MAIL ADDRESS edz@rolwesco.com	

Mail completed copy to:
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
P.O. BOX 176
JEFFERSON CITY, MO 65102-0176