

Footing Drain Disconnection FAQ's

Installation Process: Costs, Homeowner Choices, Restoration

1. Do I have to use a particular contractor (low bidder)?

Homeowners will request bids from a list of pre-qualified contractors. Homeowners only need to arrange one bid if the work can be accomplished within the \$4500 average estimate. If costs exceed \$4500, two estimates are needed. The homeowner may select either of the contractors, but must pay the differential between the lowest bid and the higher bid if the more costly contractor is selected.

2. Can I use another contractor who is not pre-qualified?

No. The Oakland County Drain Commissioner (OCDC) has developed a process for pre-qualifying contractors so that it is clear that they understand the methods and materials needed for a complete installation. Using other contractors would be more expensive for the program to manage and would make it more difficult to ensure quality construction. With several contractors pre-qualified, there is adequate choice for homeowners to make a selection. Exceptions to using the pre-qualified contractors may be allowed but the homeowner may not receive full reimbursement for all costs not pre-approved for work using pre-qualified contractors. Homeowners are encouraged to seek information/guidelines for reimbursement from FDD project staff before beginning work eligible for FDD funding. Contractors interested in participating in FDD construction are encouraged to contact the city to seek pre-qualification status.

3. Can I perform the disconnection work myself?

Yes. Homeowners can perform the work. In this case, the homeowner would need to apply for all of the necessary permits, would have to comply with the construction specifications and materials of construction, and would be reimbursed for materials only. This reimbursement would only be made after the Construction Manager had completed his final inspection of the work.

4. What will this cost me as a homeowner?

OCDC will cover the costs necessary to complete an installation of the sump and basic restoration. In most homes this is \$4500 or less. Homeowners may choose to pay for additional items to meet their desires for more security and enhanced restoration. Some homeowners choose to purchase a backup pump or to do additional landscaping work.

5. What does basic restoration mean?

Basic restoration inside the home means returning the home to the level of finish it had previous to the work. Concrete is replaced and smoothed, tiles are replaced with a closest match of available tile, carpet is re-installed, and the work site is cleared and cleaned. Outside the home, holes and trenches are filled in with compacted soil and grass seed is sown.

6. How do I know the contractor is installing quality components?

All work done by the pre-qualified contractors is in compliance with a very specific set of specifications for both the components to be used and the process for disconnection. Additionally, an O.C.D.C. inspector will ensure the work is performed according to the specifications before the contractor receives final payment.

7. What will happen to my yard?

Every effort is made to minimize the amount of excavation and disruption in the yard. The least amount of yard disruption would be if a mole tool can be used to bore underground. If using a mole, the contractor will still need to dig up two areas: Near the foundation wall, where the discharge line exits your home, and at the storm sewer connection point near the street. For more difficult installations due to the topography, type of soil, or location of the discharge line, a trench across the lawn may be needed. Any areas of your lawn that are disturbed will be re-seeded.

8. How long does construction last? How dusty? How disruptive?

Construction lasts for 2-3 days. Contractors protect flooring and hang protective plastic to minimize the mess. There will be concrete removed and this can generate dust and is noisy, but the concrete removal portion of the work will likely be done in less than an hour.

9. How will this affect the radon levels in my basement?

Everything that is installed in the basement will be sealed, protecting the home from any additional radon exposure.

10. I get water in my basement now. Will this solve that problem or make it worse?

This FDD project will only address basement water problems that are caused by heavy rain events resulting in basement backups through floor drains. It will not improve or worsen other causes of wet basements such as leaks through cracks in basement walls or floors due to poor site drainage. Poor or blocked footing drainage pipes may be corrected if they are in reach of the sump installation but blocked pipes beyond the sump installation area will not be affected by the work.

Maintenance and Operations

11. Who owns/maintains the sump, pump and additional plumbing lines?

The sump pump and lines are owned and maintained by the homeowner. However, the City and the County reserve the right of future access and inspection to ensure that the sump pump and related appurtenances are kept in good working order.

12. Is there a warranty?

Yes, the work and the sump pump have warranties through your plumbing contractor. The sump pump warranty is normally 1 year. Warranty for installation work will be outlined in your contract with the plumbing contractor.

13. What happens when my sump pump doesn't work? What if the check valves (sewage backflow prevention devices) fail?

If your sump pump stops working, water from the footing drains will not be pumped out to your discharge lines and this water can collect in your basement. As with any primary appliance, it is critical that homeowners keep sump pumps in good repair. Most sump pumps will operate for 10 to 15 years before needing replacement. Check valves need to be tested and maintained regularly or they could fail to operate and allow a basement backup to occur.

14. Why is a system being proposed that has potential to fail when I have never had a problem related to this before?

Any system like this does have the potential to fail, typically because of a loss of power or because the sump pump fails to operate. However, the alternative is that your home or the home of your neighbor could experience a basement backup when footing drain flows overwhelm the sewer system in times of heavy storms. Building code in most communities changed in the 1970's to require that footing drains use sump pumps or similar systems to direct footing drain flows to the stormwater system. Furthermore, future disconnections may be mandated by ordinance to reduce ground water inflow to the sanitary sewer and could be at the sole cost of the property owner.

15. What is a backup sump pump and why would I need one?

A backup sump pump is a secondary pump that will operate if the primary sump pump fails due to a power outage or mechanical failure. Under normal conditions, the primary sump will start running when the water in the sump reaches a certain level. If a power failure occurs during a period of footing drain flow, the water level will continue to rise past that level without the primary pump operating, and the water can build up in the footing drains and in the soil around the basement. Basement wetness can result from water pressure building up around the outside of the basement walls, where it can seep through cracks in the concrete walls or floor. Water may also seep through the sump lid.

The decision to purchase a backup system is dependent upon each homeowner's individual needs. The factors that should be considered are the level of finish of the basement, the frequency of power outages, past wetness problems, and home elevation relative to surrounding areas. Power outages frequently occur during storm events and it is advisable to have a backup system installed if you are at all concerned about basement wetness.

16. What if I have a floor drain near the sump, will the ground water seeping into the basement flow out through the floor drain from the sump?

Not necessarily. If the pump fails to pump out the ground water from your sump the water can build up in the footing drains and in the soil around the basement. Basement wetness can result from water pressure building up around the outside of the basement walls, where it can seep through cracks in the concrete walls or floor. The location that the water seeps through the basement walls or floor may not be near a floor drain and in that case the water may not drain out. Water may also seep through the sump lid into the basement and if there is a floor drain nearby the ground water may drain out through the floor drain without dispersing across the entire basement floor.

Please note that relying on draining the ground water out through the floor drain to the sanitary sewer system during a power outage or pump failure is counteractive to the goals of the footing drain disconnection program and it is not a reliable long term solution because it allows the water to enter the basement before it drains out, potentially causing damage.

17. What are the options for a backup system?

Backup sump pump systems are homeowner options and must be paid for by the homeowner. These backup systems exceed building code requirements and are considered a home improvement that is not fundable by City project dollars. The battery backup system is the most commonly chosen back up system by homeowners. For a short list of advantages and disadvantages of the different back-up sump pump systems please continue reading below. For further information regarding these back-up options please speak with a contractor or look up manufacturer information.

A battery back-up sump pump is an emergency backup pump that draws its power from an industry standard deep-cycle marine battery and pumps the water out of the sump during the loss of electricity or failure of the primary sump pump. The pump is installed in the sump and the battery pack is on the floor nearby. Battery based systems are usually fully automatic and maintain a full charge while the power is on and switch over automatically when the power turns off (indicated by an alarm).

Advantages

- *Low maintenance requirements other than replacing the battery and checking the water level in battery.*
- *Low up front cost*
- *Easy to install*
- *Works if primary pump fails*

Disadvantages

- *Limited amount of energy in battery to power pump. Time varies by manufacturer of battery and backup pump, generally 7-24 hrs.*
- *Cost of battery replacement*

A water powered back-up system is an emergency backup pump that uses the pressurized fresh water supply in the house to create suction that draws the water from the sump up through the discharge pipe to the outside of the house. It will require installing copper pipes from the nearest water supply pipe to the sump area. The pump starts automatically if the power turns off or if the primary pump fails.

Advantages

- Power provided by city water pressure. As long as there is water pressure in your house the backup pump will work.
- Works if primary pump fails

Disadvantages

- Uses about 2 gallons of pressurized fresh water to pump out 1 gallon of sump water. Water usage will show up on the water bill.
- More expensive installation cost than battery backup
- Every 5 years a plumber has to certify that sump water is not mixing with the pressurized potable water
- Additional water supply pipes around sump area
- Can result in a high water bill if operated for extended periods of time.

A manual start portable gasoline generator could also be used to provide power to the primary pump. These can be found at hardware stores and can vary in price from a few hundred to several thousand dollars. It will require that an extension cord is run from generator outside the house to the sump pump. Before purchase you would also need to verify that the generator will meet your power needs including the sump pump.

Advantages

- May cost less than battery back-up pump
- Portable generator has multiple uses

Disadvantages

- Have to be home to start the generator
- May have to refuel generator often
- No second backup pump

An automatic standby generator can be used to power select circuits in the house such as the sump pump, furnace, refrigerator and other appliances during power outages. The generator would start automatically when the power goes off and can be installed to be powered by natural gas, propane or gasoline. Usually it has to be professionally installed.

Advantages

- Power selected circuits or entire house for longer periods of time
- Starts automatically

Disadvantages

- Installation and maintenance costs
- No second backup pump

18. If my sump pump fails to operate, is this as bad as having a basement backup?

No. If your sump pump fails, the water that comes out of your sump is clean water from the ground around your basement. Normally this would drain to the nearest floor drain. On the other hand, if there was a basement backup caused by a surcharged sanitary sewer system, there is the potential that much more flow would enter your basement. This water would contain sanitary sewage, which is a more significant problem to manage.

19. How will this affect local surface water issues? (We already have street/yard trouble)

The water that currently flows through the footing drains will be routed to the stormwater system or to an alternative discharge site like a rain garden for homes that can accommodate that within their yard. In very large storms when basement backups can take place, the stormwater drainage system is designed to pond these excess flows in the streets until the downstream drainage system can accommodate these flows. The FDD generated flows are a small portion of these flows and would normally result in less than an inch of additional standing water for short periods of time. A storm water system which holds back or delays a portion of the large volume of flow, caused by heavy rains, helps preserve the natural ecosystem of the Rouge River.

20. How noisy is the pump? How often will it run?

The pump sounds much like a refrigerator motor. How often the pump runs depends on the amount of water being removed from your footing drains. In homes completed to date, the frequency of the sump pump (running) varies.

21. What happens if the discharge line freezes in the winter or is broken?

It is possible for the discharge lines to freeze as they are installed above the frost line. Normally, the water discharged from the sump pump is warm enough to flow without freezing to the storm drainage system. Additionally it is a cyclic flow which means it flows very fast while the pump is operating and hardly at all when not. This means that if the lines are placed with the proper grade they should not contain water for an extended period of time thereby minimizing possible freezing. If it does freeze, there is an emergency discharge near the home that allows water to be pumped outside the house. Also, homeowner construction of fences and lawn watering systems could break the discharge line. In these cases, the emergency discharge would put the sump water next to the house until the homeowner can repair the line. The winter of 2002/2003 proved to be a good test for the potential of freezing discharge lines with several periods of extremely cold weather and a considerable frost depth. Discharge lines installed in other communities did not experience any freezing problems.

22. How much will it cost to run my sump pump?

It has been estimated that the average property owner will pay less than a dollar a year for electricity to run the sump pump. Of course, some will be higher and some lower depending on the amount of water that is pumped.

23. If I have to replace the sump pump, what are the costs for doing this?

Sump pumps can be purchased from local home improvement and hardware stores for less than \$100. Often the property owner can install these units, but if not, estimates to replace the sump pump can be obtained from local plumbers. A common rule of thumb is that installation costs are equal to the equipment being replaced.

Legal Requirements

24. May I choose not to participate in the program? What are the consequences of that?

Participation in this program, at this time, is voluntary. The FDD program is funded by a grant and matched funds from the City of Southfield. Therefore, the program offers homeowners the opportunity to have the installation completed without any charges to the homeowner. Once the grant is complete, the program may continue with mandatory participation. Also, future FDD costs may be paid in part or entirely by the homeowner.