



City of Lawrence

Private Inflow and Infiltration Program

Plumber's Guidelines



Revisions to this document were made December 2015 as follows:

Building Permits:

The Plumbing Contractor will be responsible for submitting and obtaining all building permits along with contacting the City's Building Safety Division in order to have the fees waved. Building Permits are required for all projects that include electrical improvements, adding or replacing a sump pit/pump, cutting into the building's slab/foundation or adding more than 20 feet of sanitary sewer/drain lines. A copy of the City's building permit form is attached to this document or can be obtained from the City's Building Safety Division. Make sure the address and requested inspection date are included on all permit applications.

Program Contact Information was updated to reflect current staff working on project.

Specifications provided for an approved radon cover

Final Fee Schedule: Additional schedule was updated to provide for the Installation of an approved Radon Cover to seal penetrations at a unit cost of \$200.00. Radon covers are too utilized for all applications where there is an existing radon level that is above the EPA recommended limits and/or previous remediation efforts have been undertaken.

Plumbers Checklist

Repairs Assigned to Plumbers:

After receiving an assignment email from an Ecoflow representative:

- Initiate the first contact with the property owner as quickly as possible to schedule the Plumber's Consult and/or the repair.
- A permit is required at least 24 hours before a scheduled consult if the work is to be done the same day. (Factor in additional time for historic review)
- The consult can be scheduled the same day as the repairs. However, if the price or repair varies from the standard repair detail, a delay in beginning the repair work may be required so the City has time to review/approve the proposed changes and pricing.
- If contact with the property owner cannot be made after 3-5 phone calls over several weeks, attempt to contact the property owner directly by knocking on the door. If still unsuccessful, please notify City/TREKK.

Notify the Ecoflow Program Immediately of Scheduled Consults:

It is the plumber's responsibility to schedule the consult. After the consult has been scheduled, please notify TREKK and the City as soon as possible with the date, time, and address of the consult. City/TREKK needs at least 24 hour notice prior to the consult time. If a consult is needed in less than 24 hours, a City and TREKK representative will make every effort to accommodate the requested time, but cannot guarantee availability. If the plumber proceeds with a repair without completing a consult, the City is not legally obligated to pay for that repair.

The City requires TREKK to attend all consults and complete the following tasks:

- Share information obtained during the building evaluation with the property owner and plumber.
- Document the meeting along with any concerns or issues expressed by the individuals involved.
- Ensure that all parties are comfortable with the planned repair method.
- If the project is relatively standard, obtain an agreed upon price for the repair from the plumber.
- Have the plumber sign the addendum.
- Forward questions and related information to the City, if needed.

All discussion between the project team, the plumber and property owner during the consult will be documented in a Project Record Work Summary by a TREKK representative. A copy of that summary will be provided to the plumber within 2 business days following the consult. Plumbing consults are required for all projects other than cleanout repairs. A consult will be required for cleanout repairs if:

- The plumbing contractor is new to the program and is completing the first two cleanout repairs.
- The cleanout cannot be repaired for the standard price. This may not be known beforehand, so call City/TREKK immediately if cleanout will require additional funds.

Unforeseen Changes to Work Found During the Repair Process:

During the repair process, unexpected information can be discovered that were not evident during the Plumber's Consult. The new information may require a change to the previously agreed upon project. Changes to the project fall into two categories:

- **Price Adjustment:** If a price adjustment is required, please contact City/TREKK immediately (even if the exact increase in the price is not known).
- **Change to Final Product:** Repair modifications that affect the final work product agreed upon during the consult need to be communicated to the City, so the Project Record Work Summary can be modified.

If the change falls into both categories, contact the City first. The City will notify TREKK and ensure a record is made of the issue.

Building Permits:

Building permits for the Ecoflow Program must be submitted to the City's Building Safety Division (Development Services) in order to have the fees waved.

Building Permits are required for all projects that include electrical improvements, adding or replacing a sump pit/pump, cutting into the building's slab/foundation or adding more than 20 feet of sanitary sewer/drain lines.

- To open an initial building permit, fill out the permit form provided by the City and submit it to the City's Building Safety Division or Project Inspector (Charlie Garzillo 785-423-3383). Make sure the address and requested inspection date are included.
 - Email: buildinginspections@lawrenceks.org
 - Fax: (785) 832-7897
- To change the inspection date after the building permit has been issued, please call the City's Building Safety Division at 832-7700.
- If 24 hour notice is not provided for the requested building inspection, a same day inspection fee will be charged to the contractor. Please notify the Project Inspector day of with time and address of project.



INFLOW/INFILTRATION ABATEMENT PERMIT APPLICATION

Date: _____

Project Address: _____

Project Information (check all that applies):

- Add new electrical branch circuit or extend existing branch circuit
- Add or alter sump pit
- Replace sanitary sewer and/or drain lines greater than 20 feet in length
- Other (provide detailed description):

Project Valuation: _____

Plumbing Contractor (if required):

Electrical Contractor (if required):

Other Licensed Contractor/s (if required): _____

Requested Inspection Date: _____

Applicant Information (Primary Contractor)

Name: _____

Company: _____

Utility Department Authorization

Name/title: _____

Signature: _____

Repair Completion:

After the approved repair(s) have been completed, please submit the final paperwork packet to the City as quickly as possible.

- Final paperwork can be sent by mail or email.
- Final paperwork should include the invoice, warranty, and a red line drawing.
- Please contact the City regarding any questions regarding invoicing or payments.
- The Ecoflow team has noticed that final inspections are much more difficult to schedule if the invoice is not received shortly after completion. So, delaying invoicing for several weeks may delay payment even more.

Final Inspection

After receiving the final completion packet (invoice), TREKK will schedule a final inspection with the property owner. During the final inspection, the property owner is given the repair warranty and a program comment form.

- The building permit inspection is usually done before the project has been completed to ensure the work meets City Codes and to prevent (hopefully) any major rework. The Ecoflow inspection will be done at the completion of electrical and plumbing work.
- The final inspection allows the project team to insure that restoration/cleanup was completed properly and repairs meet program standards/specs.
- If the Plumber/City identifies an issue that needs to be addressed, the plumber shall be notified through an email from the Ecoflow Team.
- The City will not authorize payment until all issues documented are resolved.
- If the property owner does not wish to be at the final inspection, TREKK will mail them the paperwork and complete the inspection.

Program Contact Information

- ☐ Ecoflow Hotline (If initial evaluation is needed)
- ☐ Direct Phone: (785) 832-3003
- ☐ Email: lawrenceecoflow@gmail.com

Nick Hoyt

- ☐ Utilities Department - I/I Manager, Engineer
- ☐ Mailing Address: PO Box 708, Lawrence, KS 66044
- ☐ Direct Phone: (785) 832-7882
- ☐ Cell Phone: (785) 424-8139
- ☐ Fax: (785) 832-7891
- ☐ Email: nhoyt@lawrenceks.org

Erin LeGrand

- ☐ TREKK Design Group – Private I/I Resource Leader, Lawrence office
- ☐ Cell Phone: (405) 612-0331
- ☐ Email: elegrand@trekkdesigngroup.com

Mike DiPardo

- ☐ TREKK Design Group – Private I/I Technician
- ☐ Cell Phone: (816) 678-5326
- ☐ Email: mdipardo@trekkdesigngroup.com

Kellen Johnson

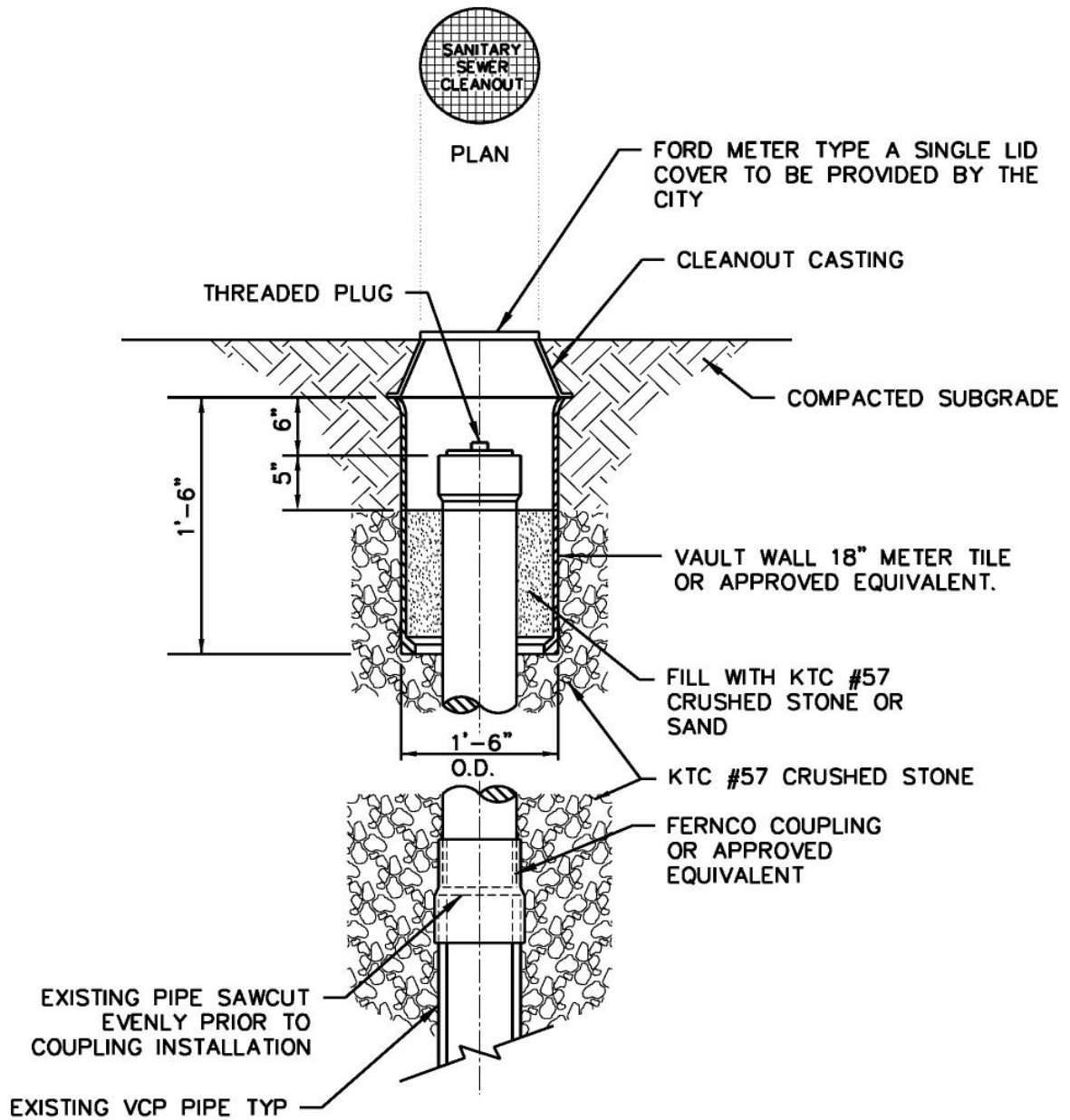
- ☐ TREKK Design Group – Private I/I Technician
- ☐ Cell Phone: (785) 393-0290
- ☐ Email: kjohnson@trekkdesigngroup.com

City of Lawrence Building Safety Division (Building Permits)

- ☐ Direct Phone: (785) 832-7700

TYPICAL DEFECTIVE CLEANOUT CAP REPAIR:

- If the cleanout pipe at grade is cracked, broken, or deteriorated, it shall be exposed to a depth not to exceed three (3) feet, saw cut evenly, and an approved coupling attached so the cleanout riser may be brought back to grade. New riser materials shall be PVC or approved equivalent. An approved cleanout plug can then be installed in the new riser. Top of cleanout plug shall be below grade and protected by vault and cover. Cleanout plug shall be no more than 6" below the vault cover.
- Cleanout vault shall extend below grade and be constructed of 18" diameter meter tile or approved equivalent. Length to be a minimum of 18" unless lateral elevation does not allow.
- Cleanout Casting to be a Ford Meter Type A single lid cover provided by the city. Casting shall be permanently stamped with "Sewer". The casting is provided by the City and can be picked up or delivered (Coordinate with the City).
- Fill vault with KTC #57 crushed stone or sand to a point approximately 5" below the cap.
- Vault to be surrounded by KTC #57 crushed stone.
- The excavation shall be backfilled and sloped away from the cleanout to prevent storm water from pooling over the cleanout.
- Remove all debris created from work, and cleanup work site.
- Provide a minimum 1-year written warranty on all parts and labor.
- The contractor shall comply with all applicable codes. Contractor shall also be responsible for obtaining all permits required, cost of permits to be included in estimate.



NOTE:
 IF EXISTING PIPE IS BROKEN BELOW GRADE, REMOVE BROKEN PIPE AND ADD RISER OF APPROVED MATERIAL.

* Typical configuration only. Exact sizes, dimension, configuration, etc vary per site.



**City of
Lawrence**

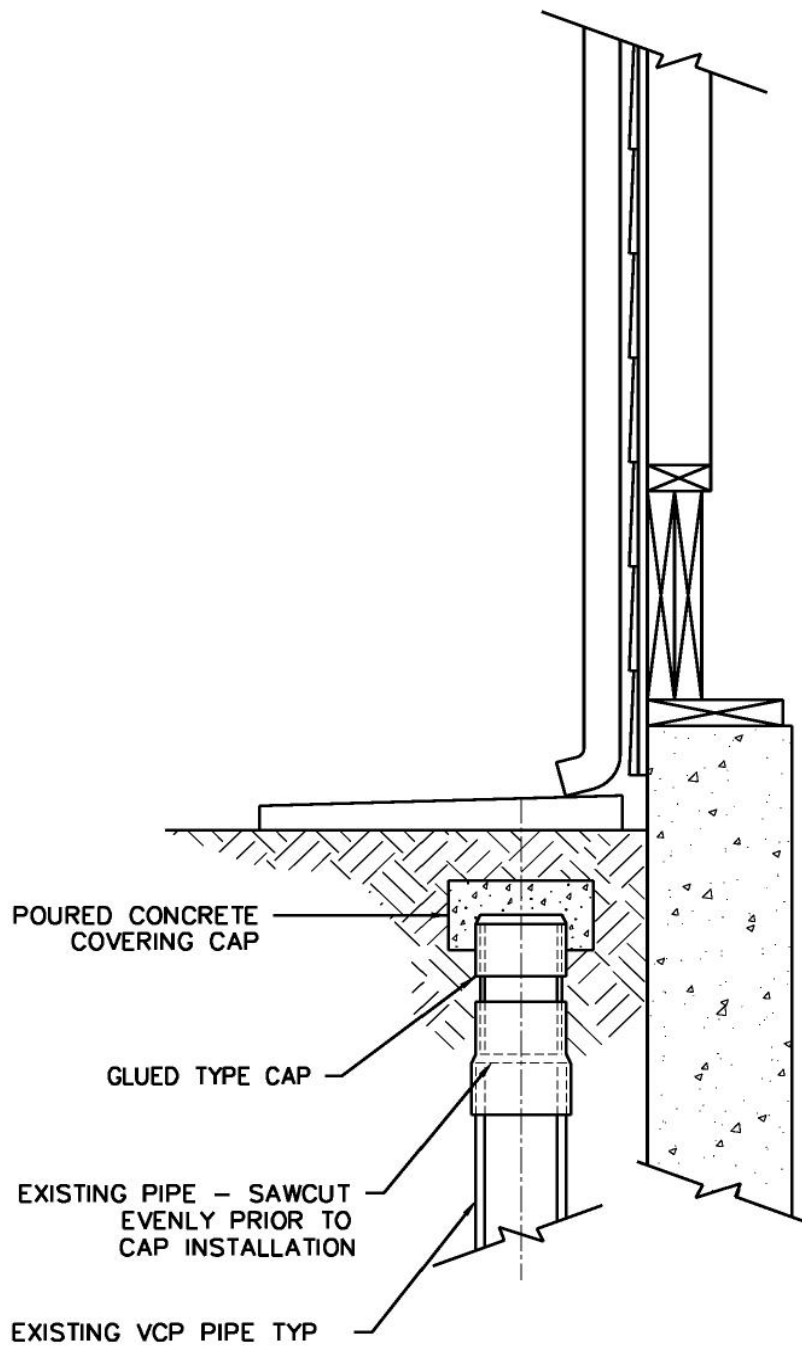
SHEET TITLE

**TYPICAL DEFECTIVE
CLEANOUT CAP REPAIR**

1

TYPICAL DOWNSPOUT DISCONNECTION PROCEDURE:

- Downspouts that are directly connected to the sanitary sewer shall be disconnected.
- The disconnection may be done by cutting off the downspout approximately 12 inches above ground level and 12 inches below ground level.
- A glued type cap shall be used to terminate the underground discharge pipe. In the event that vitrified clay pipe is existing, a Fernco type coupling shall be installed on the below ground pipe and transitioned to PVC and a glued type cap shall be installed. Expansion type plugs shall not be permitted unless the City approves.
- Place concrete around and on top of the pipe (refer to Downspout Disconnection Procedure Detail). Utilities Department staff shall inspect the installation of the glued cap and concrete cap. The Utilities Department inspector shall be notified a minimum of 24 hours prior to inspection.
- The area under a new splash block shall be graded so that positive drainage (minimum of 1-inch per foot of fall) away from the foundation is achieved. Place a concrete splash block (minimum three (3) feet in length) under the downspout. Anchor an elbow onto the downspout and align it so that it discharges onto the center of the splash block.
- Remove all debris created from work, and cleanup work site.
- Provide a minimum 1-year written warranty on all parts and labor.
- The contractor shall comply with all applicable codes. Contractor shall also be responsible for obtaining all permits required, cost of permits to be included in estimate.



NOTE:
 DOWNSPOUT PIPE TO BE CUT
 OFF BELOW GRADE AT MINIMUM
 OF 12".

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**City of
 Lawrence**

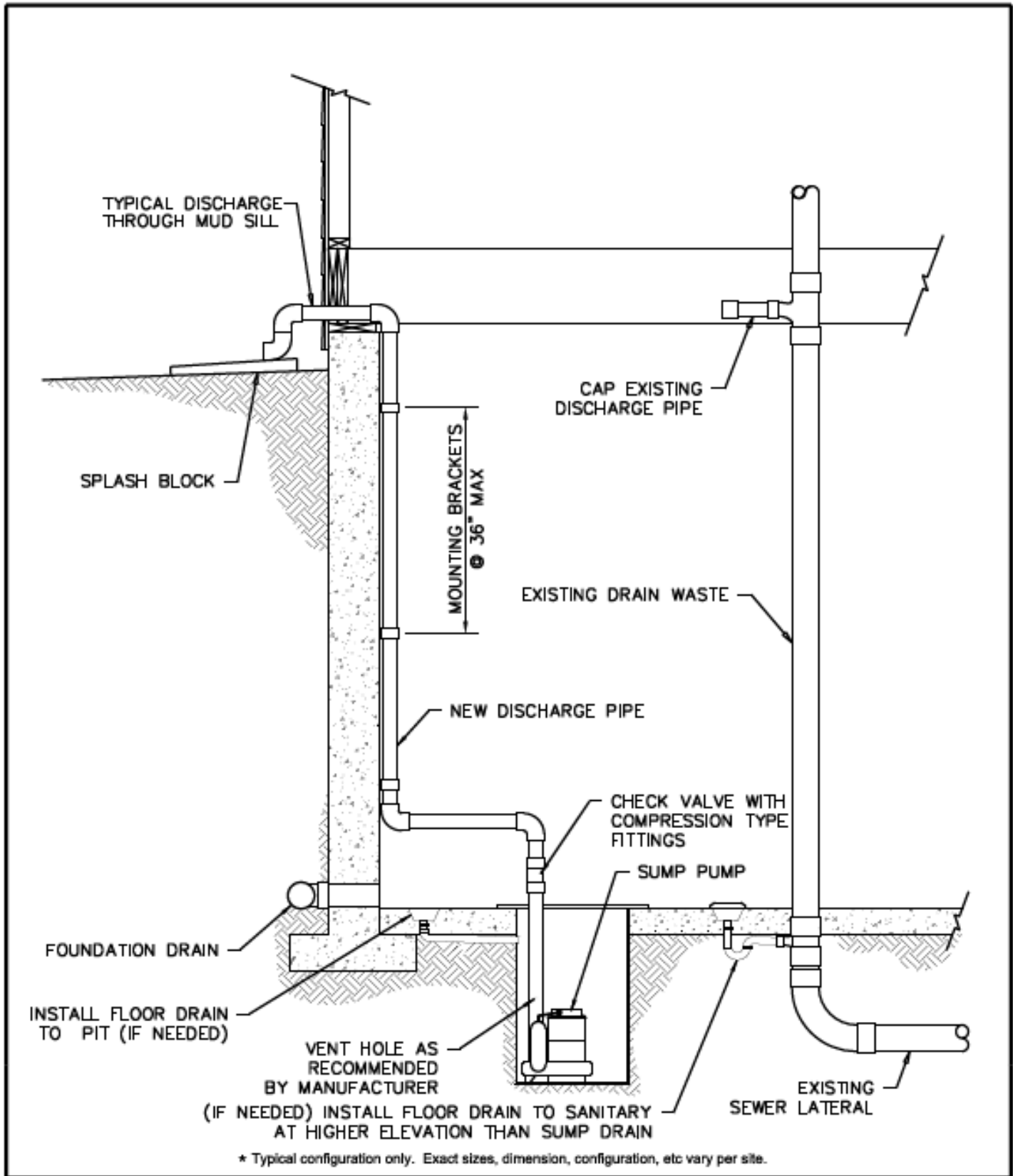
SHEET TITLE

**TYPICAL DEFECTIVE
 DOWNSPOUT DISCONNECTION**

2

TYPICAL EXISTING SUMP PUMP/FOUNDATION DRAIN DISCHARGING TO SANITARY SEWER:

- Reuse existing sump basin, if equivalent to Jackel SF 20 basin. Basin must be a minimum of 15" diameter by 22" deep or approved by the City. If existing sump basin cannot be reused, remove it and break-up floor surrounding basin to an approximate 24" x 24" area.
- Furnish and install an 18" diameter x 22" deep pre-fabricated sump pit and cover to replace existing pit. Pit to be Jackel SF20 DR or approved equivalent (1/4" perforation holes). The pit shall be surrounded by a minimum of 3" of 3/8" to 1/2" clean crushed rock on sides and bottom. Provide a minimum 3" concrete cap at floor.
- Furnish and install automatic submersible pump rated at minimum 2,000 GPH 10' TDH. Pump to be Zoellar Model M-53; Liberty Model 250-Series; or approved equivalent. Approved equivalent pump must have a minimum of 1/2" base "legs". (Note: pump data to be submitted with estimate.)
- Furnish and install a compression type check valve in discharge line. Check valve to be installed no more than 12" above pit lid, unless approved by City.
- Provide a vent hole in the discharge line as directed per the pump manufacturer recommendations.
- Properly disconnect and cap existing sump pump discharge line to the interior sanitary sewer lateral.
- Furnish and install new discharge piping from pump through outer floor joist. Discharge piping to be a minimum 1-1/2" I.D. PVC with the discharge pipe sloping slightly downward from the pump area when parallel with the floor joist. Material used shall conform to local codes.
- Secure discharge pipe with approved clamps (no strapping type pipe hangers). Clamps to be spaced a max 36" apart.
- Furnish and install insulation between discharge pipe and floor joist where secured by a clamp to deaden sound.
- If existing electrical supply meets code, do not replace. If it does not meet code, furnish and install new electrical supply to sump pump in accordance with existing electrical codes. (This will be confirmed with a City of Lawrence licensed electrician)
- If the sump pump installation is due to a foundation drain pipe discharging into a basement floor drain, the existing floor drain may need to be rerouted to the installed sump pump basin to redirect the storm water from the sanitary sewers. If this is the case, an additional floor drain will be installed and connected to the sanitary sewer drain line. This will be utilized as the main basement floor drain unless homeowner indicates in writing that they do not want this. Circumstances could vary due to site conditions.
- Terminate discharge on a splash block. Minimum of a 24" Concrete splash block shall be used. The discharge pipe shall be seated around the penetration of the outer floor joist with caulking or approved equivalent. The discharge from the sump pump shall drain away from the building foundation, in accordance with applicable codes.
- Remove all debris created from work, and cleanup work site.
- Provide a minimum 1-year written warranty on all parts and labor.
- The Contractor shall comply with all applicable codes. Contractor shall also be responsible for obtaining all permits required, cost of permits to be included in estimate.



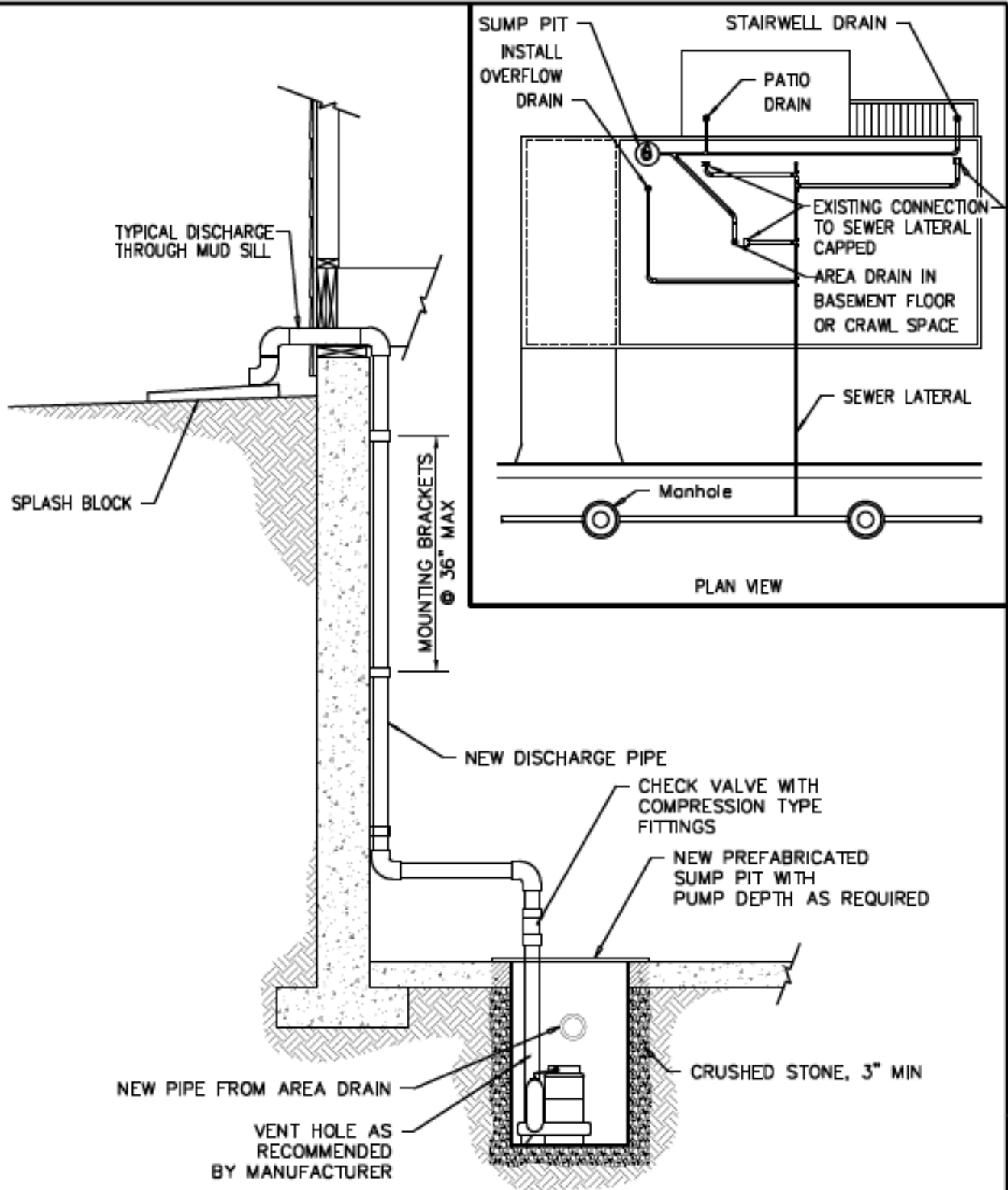
	<p>City of Lawrence</p>	<p>SHEET TITLE</p> <p>TYPICAL EXISTING SUMP PUMP DISCHARGE REROUTE TO DAYLIGHT</p>	<p>3</p>
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TYPICAL AREA DRAIN DISCONNECTION:

(Patio or Basement Entry)

- Disconnect and properly cap existing line connecting patio drain or basement entry drain to sanitary sewer lateral.
- Provide overflow drain with p-trap connected to the existing sanitary sewer at a higher elevation than pit drain to allow for drainage in the event of a power outage.
- Break-up floor that will surround new sump pit to an approximate 24" x 24" area.
- Furnish and install an 18" diameter pre-fabricated sump pit. The depth of the sump pit shall be determined by the depth of the area drain. Pit to be Jackel SF 20 or approved equivalent (1/4" perforation holes). The pit shall be surrounded by a minimum of 3" of 3/8"- 1/2" clean crushed rock on the sides and bottom. Provide a minimum 3" concrete cap.
- Install 4" diameter PVC (or equivalent) pipe that connects the existing area drain pipe to the new sump pit up to ten (10) linear feet. The pipe shall be graded at a 1/4" per foot slope from the drain pipe to the sump pump. Material shall conform to local codes.
- Replace slab, thickness and finish to match existing, over a minimum 3" of 3/8" - 1/2" clean gravel. Seal slab joints with approved sealant and joint between slab and building with approved expansion joint material. Exterior concrete placed in a hot or cold weather environment shall conform to Section 2000 - Concrete of the local codes.
- Furnish and install automatic submersible pump rated at minimum 2,000 GPH 10' TDH. Pump to be Zoellar Model M-53; Liberty Model 250-Series; or approved equivalent. Approved equivalent pump must have a minimum of 1/2" base "legs". (Note: pump data to be submitted with estimate.)
- Furnish and install a compression type check valve in discharge line. Check valve to be installed no more than 12" above the lid.
- Provide a vent hole in discharge pipe as directed per the pump manufacturer recommendations.
- Furnish and install required discharge piping. Discharge piping to be minimum 1-1/2" I.D. PVC. Material used shall conform to local codes.
- Secure discharge pipe with approved clamps (no strapping type pipe hangers). Clamps to be spaced a maximum 36" apart.
- Furnish and install insulation between discharge pipe and floor joist where secured by a clamp to deaden sound.
- Furnish and install electrical supply to sump pump in accordance with existing electrical codes.

- Terminate discharge on a splash block. Minimum of a 36" (3 feet) Concrete splash block shall be used. The discharge pipe shall be sealed around the penetration of the outer floor joist with caulking or approved equal. The discharge from the sump pump shall drain away from the building foundation, in accordance with applicable codes.
- Remove all debris created from work, and cleanup work site.
- Provide a minimum 1-year written warranty on all parts and labor.
- The contractor shall comply with all applicable codes. Contractor shall also be responsible for obtaining all permits required, cost of permits to be included in estimate.



* Typical configuration only. Exact sizes, dimension, configuration, etc vary per site.



**City of
Lawrence**

SHEET TITLE

**TYPICAL AREA DRAIN DISCONNECT
REROUTE TO DAYLIGHT**

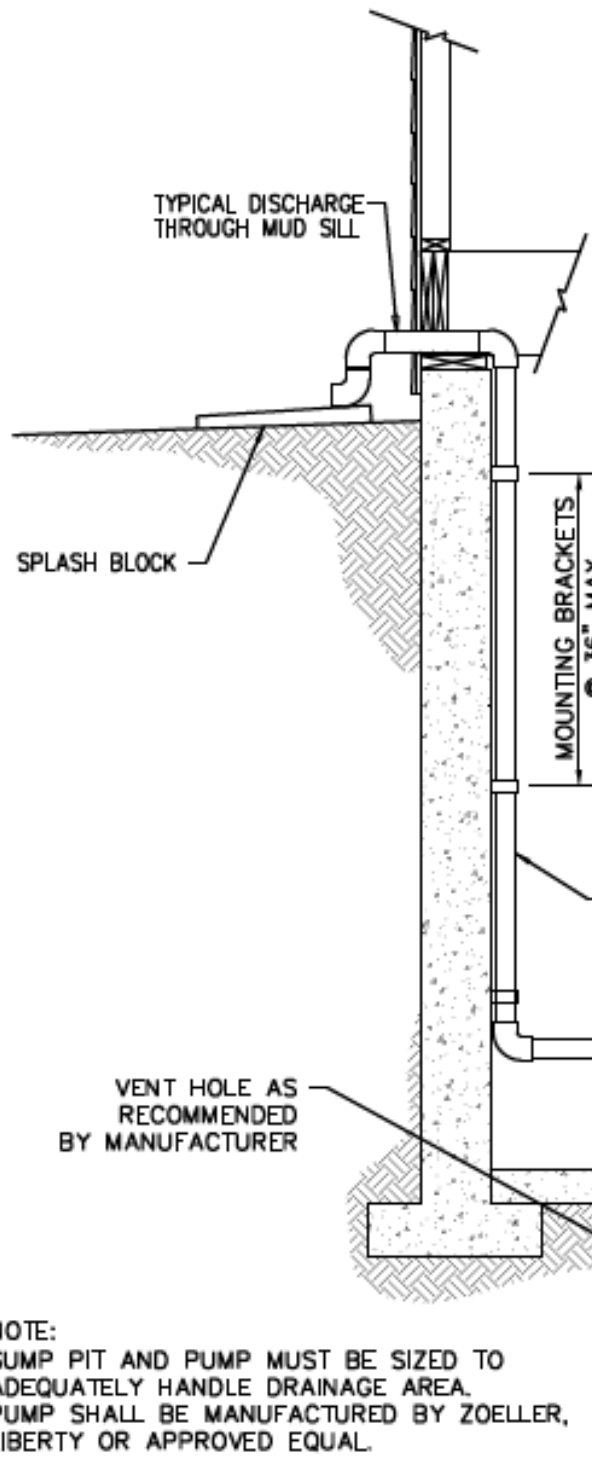
4

TYPICAL AREA DRAIN DISCONNECTION:

(Driveway)

- Disconnect and properly cap existing line connecting driveway drain to sanitary sewer lateral.
- Provide overflow drain with p-trap connected to the existing sanitary sewer at a higher elevation than pit drain to allow for drainage in the event of a power outage.
- Break-up garage floor that will surround sump pit to an approximate 24" x 24" area.
- Furnish and install a pre-fabricated sump pit. The depth of the sump pit shall be determined by the depth of the area drain. Pit to be manufactured by Jackel, Inc. or approved equivalent (1/4" perforation holes). The pit shall be surrounded by a minimum of 3" of 3/8"-1/2" crushed rock on the sides and bottom. Provide a minimum 3" concrete cap.
- Remove full section of driveway (or saw cut and remove one half section) as required to access area drain.
- Replace existing driveway area inlet with Neenah R-4937-I3 Floor Drain with Grate or approved equivalent, or if trench drain across entire width (if required) to intercept surface flow, with Neenah R-4996-A1 Type M Trench Frame with grated cover or approved equivalent.
- Install 4" PVC (or equivalent) pipe that connects the new area inlet to the new sump pit, up to ten (10) linear feet. The pipe shall be graded at a 1/4" per foot slope from the area inlet to the sump pump. Material used shall conform to local codes.
- Replace driveway section. Thickness and material shall match existing and shall be placed over a minimum 3" of 3/8" - 1/2" gravel. Finish surface to match existing and the existing concrete will be bored horizontally for #4 rebar, 12" long, spaced 12" apart, to secure the existing and new concrete together. Seal driveway joints with approved sealant, and joint between driveway and garage with approved expansion joint material. Exterior concrete placed in a hot or cold weather environment shall conform to Section 2000 - Concrete of the local codes.
- Furnish and install automatic submersible pump sized to handle tributary area (minimum capacity 3,000 GPH @ 10' TDH). Pump to be manufactured by Zoeller, Liberty, or approved equivalent.
- The contractor shall determine the capacity of the pump based upon the area draining to the area drain. The minimum pump capacity shall exceed the capacity of the area drain by a factor of two. (Note: Pump data to be submitted with estimate.)
- Furnish and install a compression type check valve in discharge line. Check valve to be installed no more than 12" above the lid.
- Provide a vent hole in the discharge line as directed per the pump manufacturer recommendations.
- Furnish and install required discharge piping. Discharge piping to be minimum 2^{1/2} I.D. PVC. Material used shall conform to local codes.

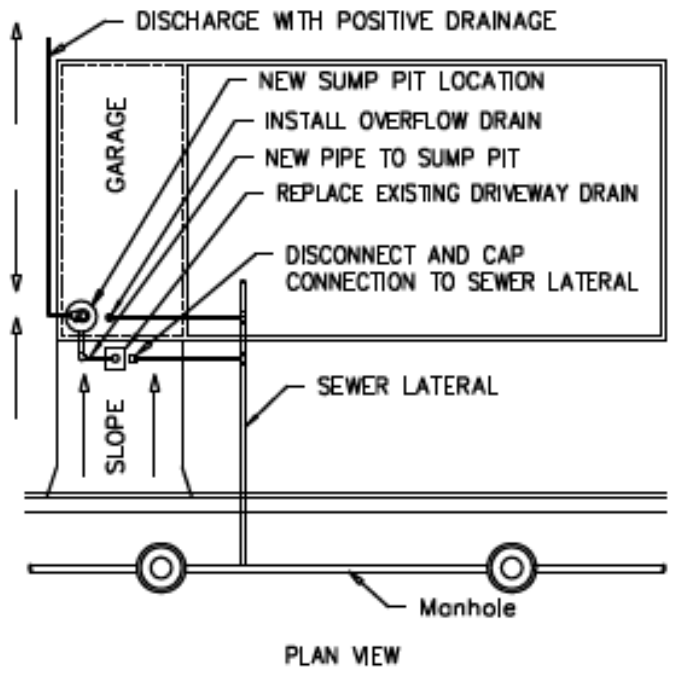
- Furnish and install sump pit inside garage and out of the vehicle drive path if possible. If not possible, furnish and install vehicle weight bearing sump pump pit and cover at an approved additional cost to City.
- Secure discharge pipe with approved clamps (no strapping or suspended type pipe hangers). Clamps to be spaced a maximum 36¹¹ apart.
- Furnish and install electrical supply to sump pump in accordance with existing electrical codes.
- Terminate discharge on a splash block. Minimum of a 24" Concrete splash block shall be used. The discharge pipe shall be sealed around the penetration of the wall with caulking or approved equivalent. The discharge from the sump pump shall drain away from the building foundation, in accordance with applicable codes.
- Remove all debris created from work, and cleanup work site.
- Provide a minimum 1-year written warranty on all parts and labor.
- The contractor shall comply with all applicable codes. Contractor shall also be responsible for obtaining all permits required, cost of permits to be included in estimate.



NOTE:
 SUMP PIT AND PUMP MUST BE SIZED TO ADEQUATELY HANDLE DRAINAGE AREA.
 PUMP SHALL BE MANUFACTURED BY ZOELLER, LIBERTY OR APPROVED EQUAL.

* Typical configuration only. Exact sizes, dimension, configuration, etc vary per site.

NOTE: EXISTING CONCRETE WILL HAVE HORIZONTAL PINS PLACED TO SECURE NEW AND EXISTING CONCRETE TOGETHER.



**City of
Lawrence**

SHEET TITLE

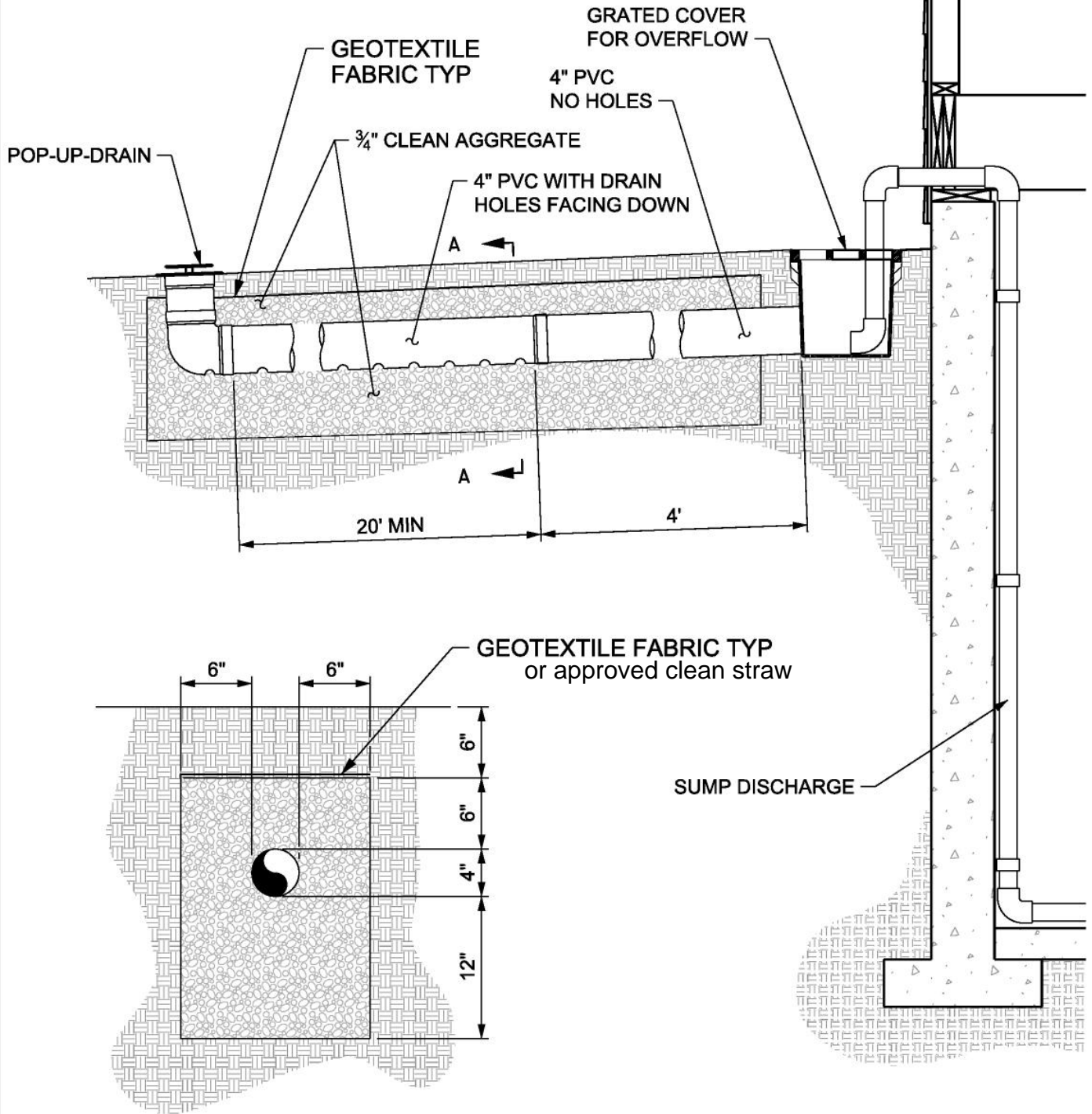
**TYPICAL DRIVEWAY DRAIN
DISCONNECT**

5

TYPICAL SUMP PUMP DISPERSION DETAIL:

- If there is inadequate drainage away from the house, it is recommended that the sump discharge be extended away from the house (see Sump Pump Dispersion Detail).
- Sump pump discharge shall be indirectly discharged into an open drain pipe or grated inlet in order to provide continued drainage in the event that the line becomes blocked.
- 4" solid drain pipe must extend a minimum of 4' from the house and then transition into 4" perforated sewer drain pipe.
- It is required that the trench be such that the drain pipe has 6" of gravel on each side and above the pipe and that there is 12" below.
- Cover topside of pipe and gravel with Geotextile Fabric prior to backfilling with dirt.
- Perforations in the drain pipe should be facing downward. Corrugated drain pipe will not be allowed.
- Gravel to be 3/4" clean.
- No less than 6" of top soil to be placed over the top of the trench and seed to match existing.
- Termination of the discharge pipe should turn upward and have a grated inlet or pop-up type drain.
- **All work performed shall be inspected before it is covered.** The City AND TREKK shall be notified a minimum of 24 hours prior to inspection.
- Once the work has been inspected, the excavation shall be backfilled and sloped away from the trench to prevent surface water from pooling.
- Remove all debris created from work, and cleanup work site.
- Provide a minimum 1-year written warranty on all parts and labor.
- The contractor shall comply with all applicable codes. Contractor shall also be responsible for obtaining all permits required, cost of permits to be included in estimate. It is anticipated that variations to this detail will be warranted on a case-by-case basis and any deviation must be approved by the Project Manager or assigned representative.

NOTE:
DISPERSION SYSTEM WILL REQUIRE AN INSPECTION BY TREKK
OR A CITY REPRESENTATIVE PRIOR TO BACKFILLING.



SECTION A-A
NTS

* Typical configuration only. Exact sizes, dimension, configuration, etc vary per site.

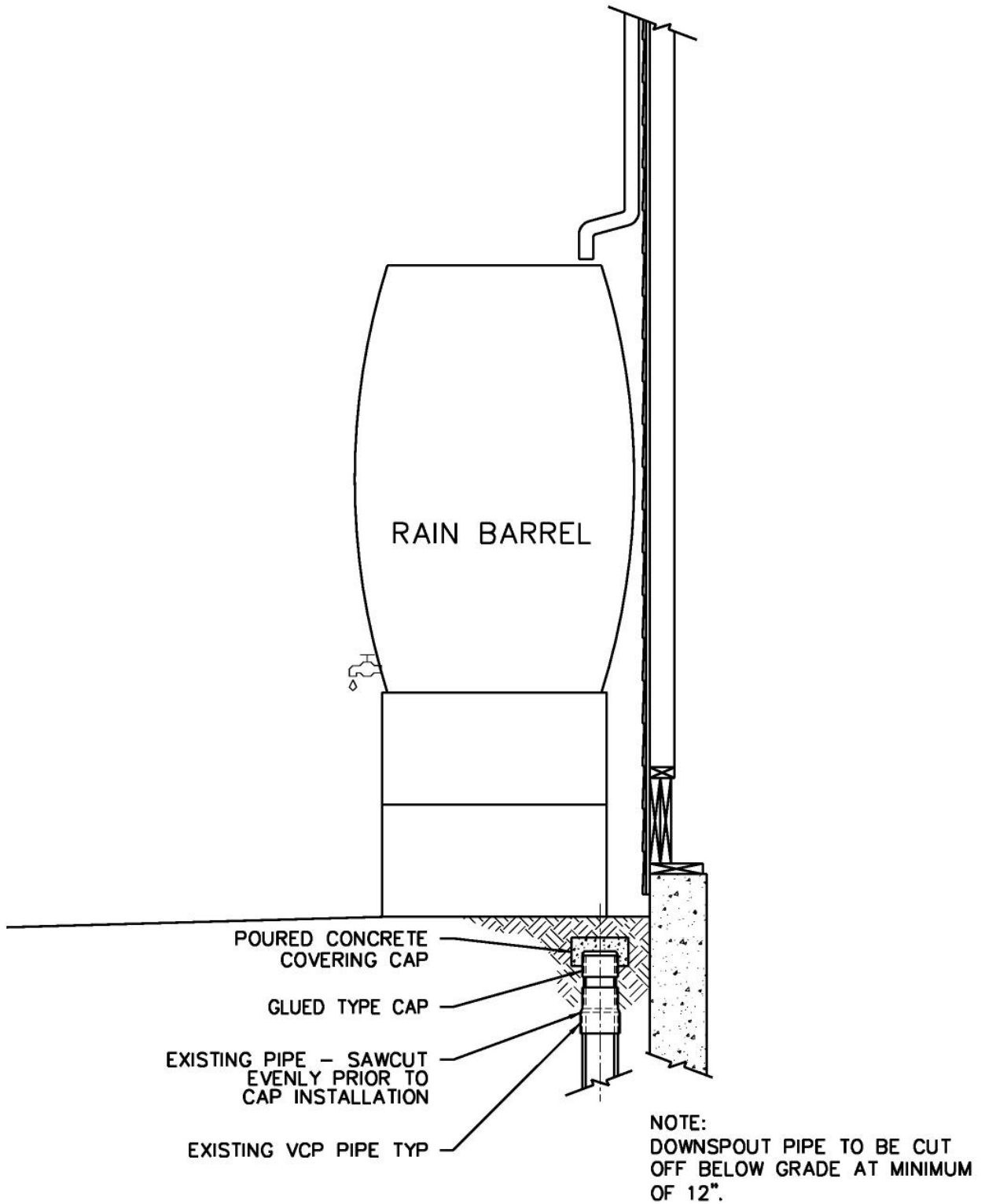


**City of
Lawrence**

SHEET TITLE

**TYPICAL SUMP PUMP
DISPERSION DETAIL WITH
POP-UP-DRAIN**

6



* Typical configuration only. Exact sizes, dimension, configuration, etc vary per site.



**City of
Lawrence**

SHEET TITLE

**TYPICAL DEFECTIVE
DOWNSPOUT DISCONNECTION
WITH RAIN BARREL**

7

TYPICAL RADON COVER DETAIL:

- City funding authorized only for previously identified elevated levels of radon gases in the building.
- Furnish and install Jackel Radon/Sump Dome cover or approved equivalent. Seal cover per manufacturers specifications.
- The contractor shall comply with all applicable codes. Contractor shall also be responsible for obtaining all permits required, cost of permits to be included in estimate.

The Original Radon/Sump Dome TM

JACKEL
www.jackelinc.com
574.256.5635

NEW FOR 2012

EASILY SUPPORTS 1,000 Lbs.

SMR16101



TOP DISCHARGE AND VENT

SMR16101B



SIDE DISCHARGE AND VENT

SMR114-V



SIDE DISCHARGE, TOP VENT

Engineered by Jackel for superior performance.

The Original Radon/Sump Dome TM

Do you have an ugly, open or unsealed sump pit in your basement?
It's an invitation for radon gas, odors, insects and critters of all sorts
and a hazard to small children and pets!

Before



The Original Radon/Sump Dome TM
can make your home healthier
and safer. It's easy to install
and preserves access for
servicing your sump pump and
controls.

After



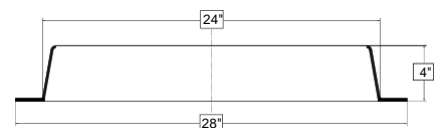
Cover and seal your sump pit with The Original Radon/Sump Dome TM
to mitigate radon gases, odors, moisture, insects and safety issues!

Tell your plumber or radon remediator that you want

The Original Radon/Sump Dome TM

Made by Jackel

574-256-5635 ----- www.jackelinc.com



PATENT PENDING

J
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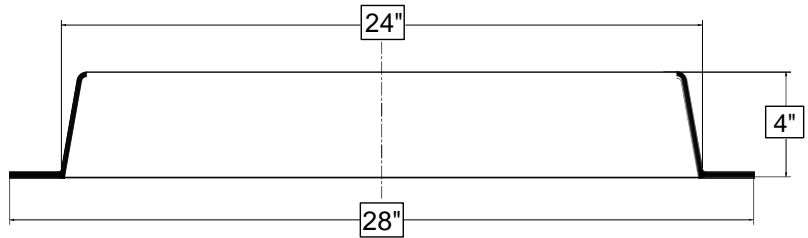


The Original Radon/Sump Dome™

MITIGATE
RADON GASES
ODORS
SAFETY ISSUES

JACKEL

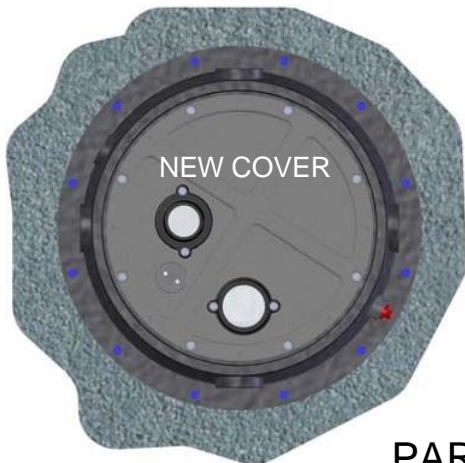
SOLUTION:



- ✓ RADON MITIGATION
- ✓ ODOR
- ✓ GAS TIGHT
- ✓ CHILD SAFETY



No reason to dig up your basement or garage floor to remove existing Sump Basin. Just remove old cover and install over the opening, to create a new Sealed System. Save TIME, Save MONEY.



Designed to cover existing hole in the floor and provide a new HEAVY DUTY cover to hide and protect.

PART NUMBER : SMR16101

PROUDLY MADE IN USA

**PATENT
PENDING**

The Original Radon/Sump Dome™

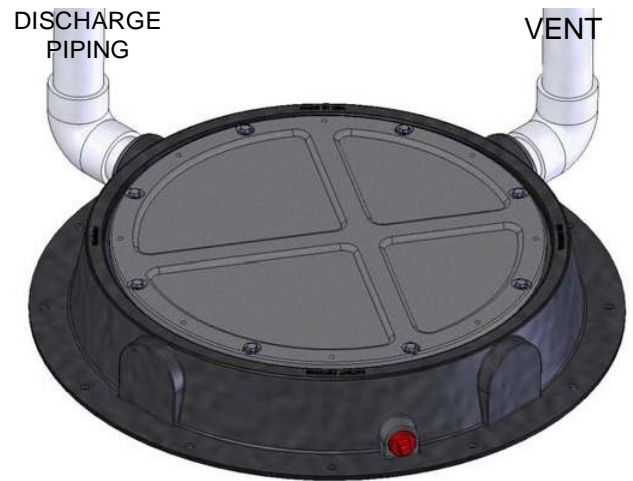
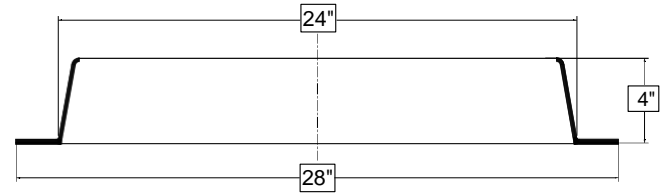
WITH SIDE VENT AND DISCHARGE
SERVICE PUMP WITH DISCHARGE,
VENT AND ELECTRICAL
CONNECTIONS INTACT

JACKEL

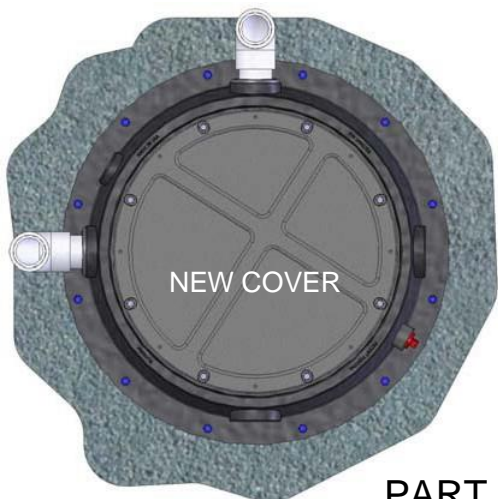
MITIGATE RADON GASES, ODORS AND SAFETY ISSUES

SOLUTION:

- ✓ RADON MITIGATION
- ✓ ODOR
- ✓ GAS TIGHT
- ✓ CHILD SAFETY



No reason to dig up your basement or garage floor to remove existing Sump Basin.
Just remove old cover and install over the opening, to create a new Sealed System.
Save TIME, Save MONEY.



Designed to cover existing hole in the floor and provide a new HEAVY DUTY cover to hide and protect.

PART NUMBER : SMR16101B

PROUDLY MADE IN USA

**PATENT
PENDING**

The Original Radon/Sump Dome™

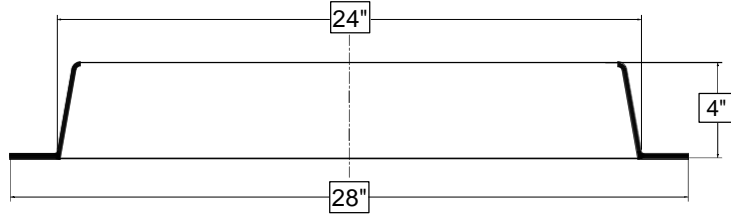
WITH SIDE DISCHARGE AND TOP VENT

SERVICE PUMP WITH DISCHARGE,
VENT AND ELECTRICAL
CONNECTIONS INTACT

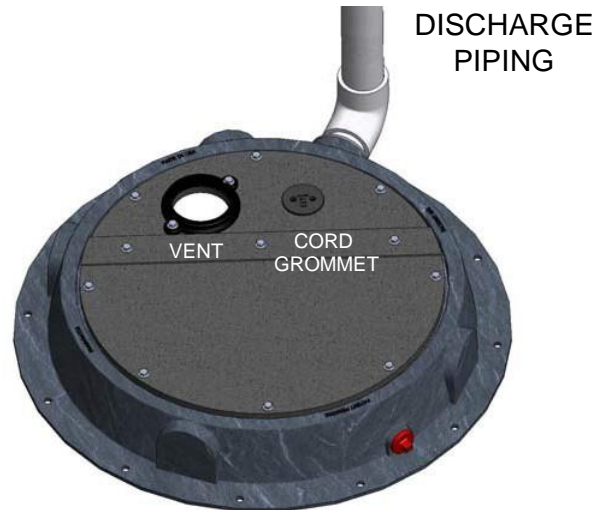
JACKEL

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PART NUMBER : SMR114-V

PROUDLY MADE IN USA

**PATENT
PENDING**

Final Fee Schedule:

This Final Fee Schedule established by the City contains unit pricing for specific Inflow/Infiltration (I/I) removal techniques to be paid to pre-qualified Licensed Plumbing Contractors.

The following unit prices are considered to be all-inclusive for the typical I/I disconnects the City anticipates. All work shall be performed as described and defined in the Repair Specifications and Construction Details contained in Attachments 1 through 7 of the Request for Qualifications. Additional work necessary to complete a repair beyond the described and defined Repair Specifications and Construction Details shall be itemized and submitted to the City for approval.

1. Unit Price for Defective Cleanout Repair (Attachment No. 1): \$700.00
2. Unit Price for Downspout Disconnection (Attachment No. 2): \$575.00
3. Unit Price for Existing Sump Pump and/or Foundation Drain Discharging to Sanitary Sewer (Attachment No. 3):
 - A. Using existing sump basin: Unit Price \$1460.00
 - B. Using new sump basin: Unit Price \$2420.00
 - C. Additional Sanitary Floor Drain Installation: Unit Price \$200.00
 - D. Additional Storm Floor Drain Installation: Unit Price \$75.00
 - E. Additional Radon Cover Installation and Seal Penetrations: Unit Price \$200.00
4. Unit Price for Area Drain Disconnection (Patio or Basement Entry) (Attachment No. 4): \$3500.00
5. Unit Price for Area Drain Disconnection (Driveway Drain) (Attachment No. 5): \$3900.00
6. Unit Price for Sump Pump Dispersion System (Attachment No. 6): \$2950.00
7. Unit Price for Rain Barrel Installation for Downspout Disconnection (Attachment No. 7): \$775.00

For items 3, 4, and 5; Up to \$250 of electrical costs are included in the standard fee structure. Any additional electrical costs shall be itemized and submitted to the City for approval.

The City will pay for any additional private I/I abatement work, including stormwater conveyance improvements, that is agreed upon by the City, property owner and plumbing contractor and documented in writing but not covered by any of the unit price items in the Final Fee Schedule above. Alternative remediation methods may be considered on a case by case basis. Any such additional private I/I abatement work must be agreed to in scope and total fee paid to plumbing contractor prior to work being performed.



WARRANTY

ECOFLOW 12 MONTH WARRANTY

The City of Lawrence Rapid Rainwater Reduction Program hereby agrees to provide a twelve (12) month parts and labor warranty for work performed at the following address:

Property Owner (name):

Site Address:

in Lawrence, Kansas

Date:

The following work is covered under this warranty:

- Install service lateral cleanout.
- Disconnect existing downspout (roof drain) from sanitary sewer and discharge stormwater away from the foundation (With Rain Barrel or Without Rain Barrel).
- Disconnect sump pump from sanitary sewer, and discharge stormwater away from the foundation, utilizing existing sump basin.
- Disconnect sump pump and/or basement floor drain from sanitary sewer, and discharge stormwater away from the foundation, installing new sump basin.
- Disconnect outside area drain (patio or basement entry drain) from sanitary sewer and discharge stormwater away from foundation.
- Disconnect driveway drain from sanitary sewer.
- Install sump pump discharge dispersion to drain stormwater away from foundation.
- Other: (describe)