



**PRIVATE INFILTRATION & INFLOW (I/I)
REMOVAL PROGRAM**

PROCEDURES MANUAL

**Prepared by Ron Thomann
August 24, 1998**

PRIVATE INFILTRATION & INFLOW (I/I) REMOVAL PROGRAM

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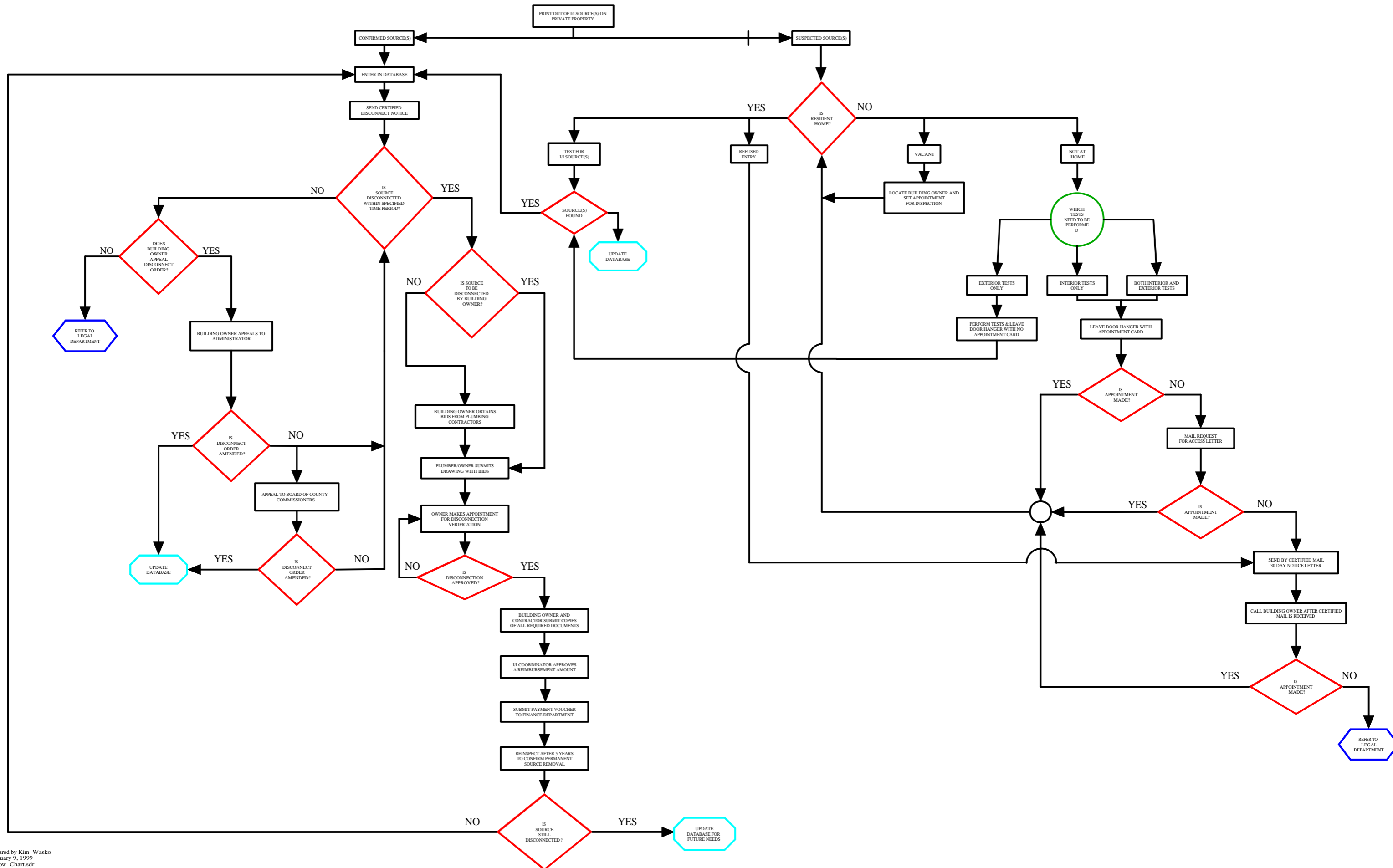
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FLOWCHART OF PRIVATE
I/I REMOVAL PROGRAM

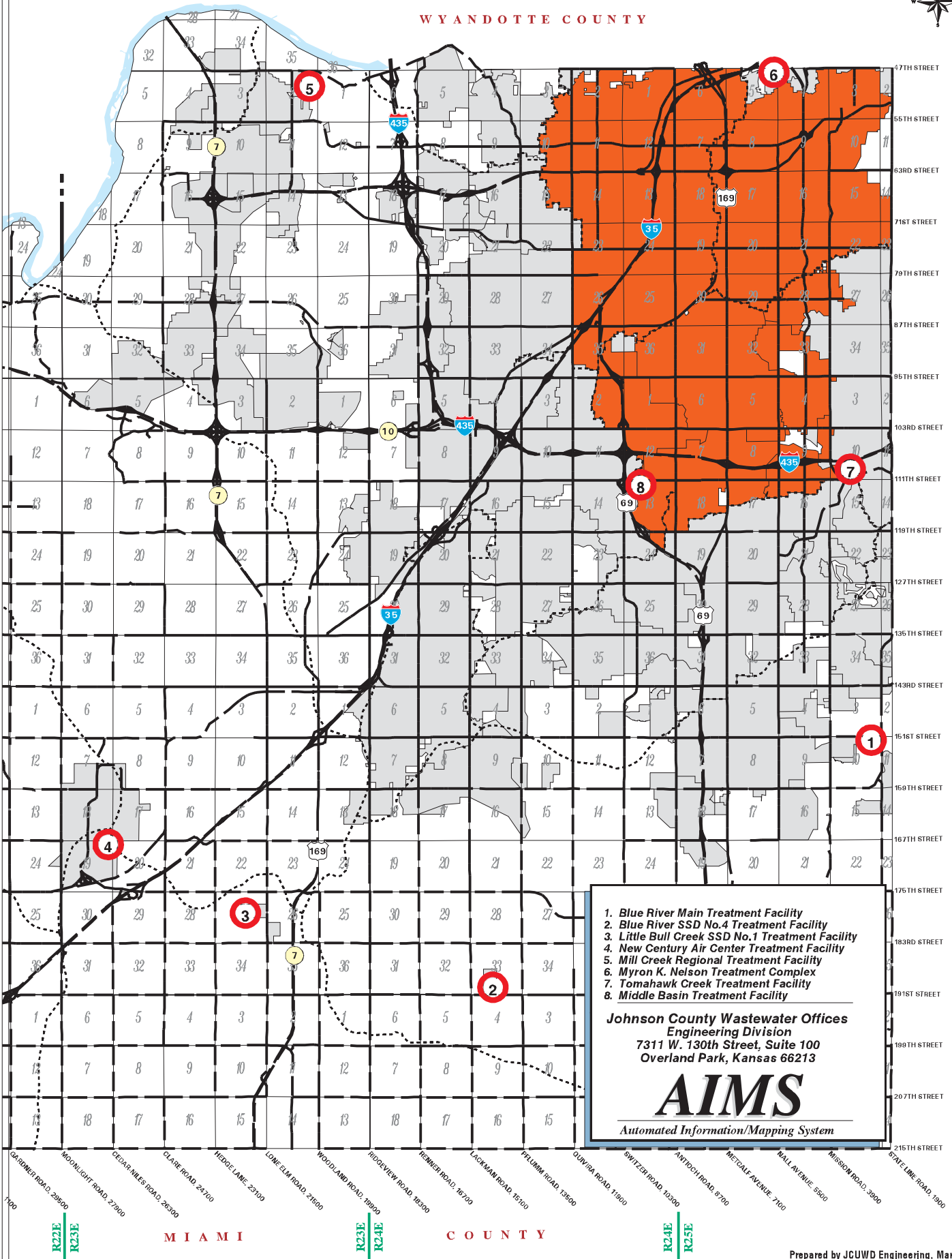
JOHNSON COUNTY UNIFIED WASTEWATER
PRIVATE I/I FLOW CHART



Johnson County Wastewater Districts



WYANDOTTE COUNTY



T11S
T12S

MISSOURI

T12S
T13S

OF

T13S
T14S

STATE

T14S
T15S

1. Blue River Main Treatment Facility
 2. Blue River SSD No.4 Treatment Facility
 3. Little Bull Creek SSD No.1 Treatment Facility
 4. New Century Air Center Treatment Facility
 5. Mill Creek Regional Treatment Facility
 6. Myron K. Nelson Treatment Complex
 7. Tomahawk Creek Treatment Facility
 8. Middle Basin Treatment Facility

Johnson County Wastewater Offices
 Engineering Division
 7311 W. 130th Street, Suite 100
 Overland Park, Kansas 66213

AIMS
 Automated Information/Mapping System

64-RUNNER ROAD, 29600
 WOODLIGHT ROAD, 27900
 CEDAR HILLS ROAD, 26300
 CLARE ROAD, 24700
 HERDLE LANE, 23100
 LONE ELM ROAD, 21600
 WOODLAND ROAD, 19900
 RIDGEVIEW ROAD, 18300
 RENNIE ROAD, 16700
 LACKMAN ROAD, 15100
 PFLUMM ROAD, 13500
 OLIVERA ROAD, 11900
 SWITZER ROAD, 10300
 ANTIPOCH ROAD, 8700
 METCALF AVENUE, 7100
 HALL AVENUE, 5500
 MISSION ROAD, 3900
 STATE LINE ROAD, 1900

R22E
 R23E
 R24E
 R25E

MIAMI
 COUNTY

GENERAL PROCEDURES

GENERAL PROCEDURES

Initial data is collected by staff and is entered into a computer database. From this computer database, a printout of confirmed and suspected infiltration and inflow (I/I) source(s) can be generated for a particular area.

CONFIRMED SOURCE(S)

If a source is confirmed, the data is entered into the I/I computer database and the disconnection process begins.

I. Disconnection Process

A disconnection request is sent by certified mail to the address of the building owner identifying the confirmed source(s). Also sent with the disconnect request are appeal procedures, plumbers list, and step by step procedure.

The building owner has the option of hiring a plumbing contractor, doing the work him/herself or in some cases requesting the Wastewater Districts to assign the work to a pre-approved contractor. If the work is performed by a contractor, the lowest bid will be chosen, unless stated otherwise. If the building owner elects to perform the work, a conceptual drawing of the disconnection is to be submitted to the I/I Planning Coordinator. The drawing shall be reviewed by the Wastewater Districts I/I staff.

Once the work is performed, the building owner shall make an appointment with the I/I Department and the city (if applicable) to verify and approve the disconnection. The disconnection will be approved according to workmanship and minimum standards.

II. Reimbursement Process

If the disconnection is approved, the owner may request payment be made directly to the specified contractor. For work completed by the property owner, reimbursement will be for materials only. The I/I Planning Coordinator shall approve an amount for reimbursement (not exceeding the reimbursement schedule) and a payment voucher is submitted to the Finance Department for disbursement of funds. After approximately five (5) years, a reinspection of the disconnect will be performed to assure the permanent removal of the I/I source.

III. Appeal Process

Once the disconnect request is sent, the building owner has 60 days to appeal to the Wastewater Administrator. If a solution is not reached, the building owner may appeal to the Board of County Commissioners, via the County Administrator.

SUSPECT SOURCE(S)

Any source listed as suspect will require an inspection and testing (dye testing) by a Wastewater Districts' I/I Inspector.

IV. Obtaining Access to Premises for Source Testing

An attempt will be made at each address to determine if it is occupied prior to equipment setup or testing.

The occupant should be informed that Wastewater Districts' employees will be on the property for a short period of time to conduct outside drainage tests.

If the home is unoccupied, the test should be performed according to established guidelines.

Obtaining Access to Premises for Building Inspection

Initially, a request for building inspection letter (see copy of letter) is mailed to all not at home, vacant, or refused entry addresses provided by consultants, requesting the occupant to call the Wastewater Districts office during regular business hours to schedule an appointment to perform the inspection. If no response is received from the occupant within five (5) days, employees of the Wastewater Districts' I/I staff will attempt to contact the occupant by telephone.

If the occupant cannot be contacted by telephone, a "request for access" letter is mailed requesting the occupant to either telephone the Wastewater Districts, or mail in an enclosed postage paid appointment card to schedule a building inspection (see copy of letter). If, after 15 days, an appointment for an inspection has still not been made, an "access to building" letter will be sent certified mail (see copy of letter). The building owner is mailed one last letter after the specified time frame has expired notifying them to contact the Districts within seven (7) days. The last step is to refer the matter to the Legal Department.

If the resident refuses entry to the I/I Inspectors, they will politely thank the resident and leave the premises. The inspectors will route the inspection form to the I/I Planning Coordinator. If the resident is uncooperative, the inspector will leave immediately and not argue or provoke the individual(s) in any way or manner. The I/I Planning Coordinator will mail an "access to building" letter to the building owner by certified mail. Next, the building owner will be contacted by telephone after the certified mail receipt is returned. If an appointment cannot be made, the Legal Department shall be informed.

If the building is determined to be vacant, the county records shall be researched to locate the owner. After the owner is determined, a "request for access" letter shall be mailed to the owner. If there is no response within the allotted time, the "access to building" letter shall be sent by certified mail. After the certified mail receipt is returned, the owner shall be contacted by telephone. The last step is to inform the Legal Department.

RESOLUTION NO. WD 93-41

RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS
OF JOHNSON COUNTY, KANSAS,
AMENDING THE CODE OF REGULATIONS FOR
PRIVATE INFILTRATION AND INFLOW,
1992 EDITION

On this 9th day of September, 1993, the Board of
County Commissioners of Johnson County, Kansas, met in regular
session with the following members being present and participating,
to-wit:

Sue E. Weltner - Chairman
Bruce R. Craig - Member
Johnna Lingle - Member
Annabeth Surbaugh - Member
Murray L. Nolte - Member

Whereupon, there came before the Board for consideration the
matter of amending the Code of Regulations for Private Infiltration
and Inflow, 1992 Edition.

The Board, after thorough deliberation, upon a motion duly
made, seconded and carried, adopted the following:

WHEREAS, the Board of County Commissioners (hereinafter
referred to as the "Board") did adopt the Code of Regulations for
Private Infiltration and Inflow, 1992 Edition, (hereinafter
referred to as the "Code"), by Resolution No. WD 92-22; and

WHEREAS, Section 7 of Chapter 1, Article 1, of the Code allows
the Board to amend or supplement its provisions from time to time
and to incorporate such amendments or additions therein by duly
adopted resolution; and

WHEREAS, it has become necessary and advisable to amend certain provisions of the Code by resolution and to incorporate such amendments therein.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Johnson County, Kansas, that the Code of Regulations for Private Infiltration and Inflow, 1992 Edition, shall be amended as follows:

1. Sections 7 and 8 of Chapter Five, Article 1, shall be amended and combined into a single Section 7 which shall thereafter read as follows:

SEC. 7 REIMBURSEMENT SCHEDULE. If compliance with this Code is verified, the administering agency may pay as reimbursement for expenses of disconnection an amount not to exceed the following maximum amounts per source:

<u>Source Description</u>	<u>Maximum Amount</u>
(1) Directly Connected Storm Sump Pump	\$ 800.00 per sump pump
(2) Directly Connected Combination Sump Pump	\$1,800.00 per sump pump
(3) Foundation Drain Sump Pit	\$ 800.00 per sump pit
(4) Combination Foundation Drain Sump Pit	\$1,800.00 per sump pit
(5) Area Drains (Driveway, Window Well, Patio, Yard)	\$2,200.00 per area drain
(6) Area Drains (Basement Entry)	\$ 850.00 per drain
(7) Downspouts	\$ 100.00
(8) Cleanouts	\$ 250.00
(9) Auxiliary Back-up Pump (only allowed with separate authorization)	\$ 400.00
(10) Buried Solid Discharge Pipe	\$ 3.50 per ft.
(11) Buried Shallow Lateral Pipe	\$ 6.00 per ft.
(12) Buried Deep Lateral Pipe	\$ 10.00 per ft.

Payment may be made to the property owner, his agent, or the specified contractor at the property owner's request. If the property owner chooses to disconnect by means of self-help, the administering agency may reimburse the property owner for materials only, in an amount not to exceed the maximum amounts per source.

Acceptance of reimbursement shall constitute a consent by the property owner to reinspection of the premises by the administering agency within seven (7) years following payment to the property owner or the specified contractor for the sole purpose of verifying continued compliance of this Code. Such reinspection shall be done at a convenient time.

2. Section 9 of Chapter Five, Article 1, shall be renumbered Section 8.

3. The Index to the Code shall be amended to reflect these changes.

BE IT FURTHER RESOLVED by the Board of County Commissioners of Johnson County, Kansas, that this Resolution shall be published once in the official County newspaper and copies of the Code, as amended, shall be made available for review and inspection at the office of the Board, the County Clerk and the Johnson County Unified Wastewater District.

The above-referenced amendments shall become effective immediately upon publication of this Resolution in the official County newspaper.

BOARD OF COUNTY COMMISSIONERS
OF JOHNSON COUNTY, KANSAS

BY Sue E. Weltner
Sue E. Weltner, Chairman

ATTEST:

Beverly L. Baker
Beverly L. Baker
County Clerk



APPROVED AS TO FORM:

Don Jarrett
Don Jarrett, Chief Counsel

RESOLUTION NO. WD 92-22

RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF
JOHNSON COUNTY, KANSAS ADOPTING THE CODE OF REGULATIONS
FOR PRIVATE INFILTRATION AND INFLOW, 1992 EDITION

On this 4th day of June, 1992, the Board of County Commissioners of Johnson County, Kansas met in regular session with the following members being present and participating, to-wit:

Johnna Lingle - Chairman
Sue E. Weltner - Member
Murray L. Nolte - Member
Bruce R. Craig - Member

WHEREUPON, there came before the Board for consideration the matter of adopting the Johnson County Code of Regulations For Private Infiltration and Inflow, 1992 Edition, superseding Resolution No. W.D. 85-96.

The Board, after thorough deliberation, upon a motion duly made, seconded and carried, adopted the following:

WHEREAS, the Board of County Commissioners did adopt Resolution No. W.D. 85-96 establishing a program for the reduction of the number of private sector infiltration and inflow sources into the sanitary sewer system of the Johnson County Unified Wastewater Districts; and

WHEREAS, Resolution No. W.D. 85-96 prohibited the connection of roof down spouts, interior or exterior foundation drains, area way drains, or other sources of surface runoff or ground water directly to a public sanitary sewer or to a building sewer or building drain which is connected to a public sanitary sewer, all in conformance with state and federal environmental protection regulations; and

WHEREAS, the introduction of stormwater and other pollutants or ground contaminants into the sanitary sewer system, by infiltration, inflow, discharge, or other means, can and does increase the costs of constructing and operating the sewer system; does adversely impact the effective treatment of wastewater; does create conditions that pollute waterways; and does pose a direct threat to the public health and safety by causing sewer back-ups and sewer by-passes, as well as stream and ground pollution; and

WHEREAS, the continued implementation and enforcement of the regulations on private infiltration and inflow sources into the sanitary sewer system is necessary and advisable for the protection of the health, safety and welfare of the citizens of Johnson County, for the protection and preservation of the environment, and for compliance with the state and federal laws, rules and regulations.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Johnson County, Kansas that the Johnson County Code of Regulations For Private INFILTRATION AND INFLOW, 1992 Edition, a copy of which is attached to this Resolution, shall be and hereby is adopted and enacted, and the Code, as adopted by this Resolution, shall supersede the policies, regulations, procedures and provisions of Resolution No. W.D. 85-96.

BE IT, FURTHER, RESOLVED by the Board of County Commissioners of Johnson County, Kansas that the Code of Regulations For Private Infiltration and Inflow, 1992 Edition shall be and become effective from and after June 15, 1992 and shall be applicable to all persons and properties located within any benefit, improvement or other lawfully established wastewater or sewer district now or hereafter created or operated under the authority and jurisdiction of the Board of County Commissioners and for which sanitary sewer facilities or services are available or utilized, including authorized contract service areas.

BE IT, FURTHER, RESOLVED by the Board of County Commissioners of Johnson County, Kansas that the terms, parts, and provisions of the Code of Regulations for Infiltration and Inflow, 1992 Edition, as enacted under this Resolution, shall, to the extent applicable, be and apply retroactive and any condition, consideration, ruling, or other action made or authorized under the provisions of Resolution No. W.D. 85-96 shall be and remain effective, and any condition, connection, act or failure considered or constituting a violation of the

provisions of Resolution No. W.D. 85-96 which is not abated or which continues to exist upon the effective date of the Code of Regulations adopted under this Resolution shall be considered and constitute a violation of the Code and shall be processed and prosecuted pursuant to the provisions of the Code, as then in effect at the time of prosecution.

BE IT, FURTHER, RESOLVED by the Board of County Commissioners of Johnson County, Kansas that:

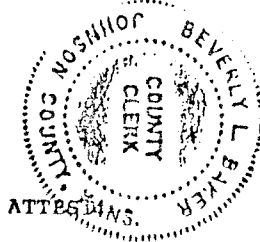
A. From and after the effective date of the Code of Regulations as enacted under this Resolution, no person shall knowingly allow or commit a violation of the provisions or requirements of the Code of Regulations or any administrative rulings issued pursuant to the Code, and any such violation or willful failure, by and person, to comply with the rules, standards, regulations or requirements established by or pursuant to the Code, shall be and hereby is declared to be unlawful as a violation of County Codes and Resolutions, as authorized under K.S.A. 19-101;

B. The failure of any person to comply with, or the commission of any act in violation of, any provision, requirement, standard, directive, notice, or ruling established by or pursuant to the Code of Regulations for Infiltration and Inflow, 1992 Edition, shall be a public offense designated as a Class D infraction under the authority of the County Codes and Regulations and shall be punishable, upon conviction, by a fine in an amount not less than Fifty Dollars (\$50.00) nor more than One Hundred Dollars (\$100.00) for each separate violation and offense, and each separate day that a violation knowingly exists or is allowed to occur shall be considered as a separate offense and violation, which may, upon conviction, be punishable by a separate and additional amount or may be considered as a more serious class violation under the authority of the County Codes and Regulations; and

C. Prosecutions of offenses under the Code of Regulations shall be prosecuted under the direction of the County

Counselor of K.S.A. 19-101d through the established procedures for the enforcement of County Codes and Resolutions, and the Code of Regulations may be enforced through actions commenced in any court of competent jurisdiction and any lawful order, ruling, injunctive action or other relief authorized and available pursuant to the Code and the laws of the State of Kansas.

This Resolution and the Code of Regulations, as adopted, shall be published once in the official County newspaper and copies of the Code, as enacted, shall be made available for review and inspection at the office of the Board, the County Clerk and the Johnson County Unified Wastewater District.



BOARD OF COUNTY COMMISSIONERS
OF JOHNSON COUNTY, KANSAS

By *Johanna Lingle*
Johanna Lingle, Chairman

Beverly L. Baker By: *Panellie S. Gallick*
Beverly L. Baker County Clerk Panellie S. Gallick Deputy County Clerk

APPROVED AS TO FORM:

Don Jarrett
Don Jarrett, Chief Counsel

RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF JOHNSON COUNTY, KANSAS ESTABLISHING A PROGRAM FOR THE REDUCTION OF THE NUMBER OF PRIVATE SECIOR INFILTRATION AND INFLOW SOURCES INTO THE SANITARY SEWER SYSTEM.

On this 3rd day of October, 1985, the Board of County Commissioners of Johnson County, Kansas, as the Governing Body of the Johnson County Unified Wastewater Districts, met in regular session, a quorum of the following Commissioners being present and participating, to-wit:

Janet D. Leick, Chairman
Johnna Lingle, Commissioner
Kent Crippin, Commissioner
Bruce Craig, Commissioner

WHEREAS, A fundamental duty of every government is the protection of the health and safety of its citizens and to thereby promote the public welfare. Consequently, the Board of County Commissioners hereby finds, determines and declares that it is necessary to adopt a uniform system of rules, regulations and standards to eliminate and prevent certain environmental conditions that are hazardous to the public health, safety and welfare. Specifically, the Board of County Commissioners finds that the excessive inflow and infiltration of storm water from any source, private or public, into the sanitary sewage system operated by the Johnson County Unified Wastewater Districts is a hazard to the health, safety and welfare of the citizens of this County and surrounding communities because such infiltration and inflow overloads the capacity of both sanitary sewer lines and treatment plants,

WHEREAS, the Sewer Use Resolution (Res. No. WD 82-233), JCUWD regulations, and municipal, state and federal regulations restrict the types of connections to a public sanitary sewer system,

NOW THEREFORE, BE IT RESOLVED that the following resolution be adopted, to establish a program for the reduction of certain sources of storm water from private or public locations into the sanitary sewer system operated under the authority of the JCUWD and districts included therein and pursuant to Johnson County Charter Resolution 18-84.

ARTICLE I-POLICY, PURPOSE, & APPLICABILITY

- SEC. 1 Purpose: The purpose of this resolution is:
- (a) To promote the health, safety and welfare of the public; and
 - (b) To prescribe rules, regulations, standards and enforcement procedures for the minimization, control or elimination of potential and actual sources or causes of storm water infiltration and inflow into the sanitary sewer system operated by Johnson County Unified Wastewater District.
- SEC. 2 Applicability: This resolution shall be applicable to any sewer district created under the authority of Johnson County Charter Resolution 18-84, K.S.A. 19-2731 et seq., K.S.A. 19-2787 et seq., K.S.A. 19-2704a et seq., K.S.A. 19-27,140 et seq., or other Kansas statutes.
- SEC. 3 Effective Date: This resolution shall become effective January 1, 1986.
- SEC. 4 Severability: If any clause, sentence, paragraph, section or subsection of this resolution shall be adjudged invalid for any reason whatsoever, by a court of competent jurisdiction such judgment shall not affect, repeal or invalidate the remainder thereof, but shall be confined to the clause, sentence, paragraph, section or subsection thereof so found invalid.
- SEC. 5 Disclaimer of Liability: This resolution shall not be construed or interpreted as imposing upon the County or any sewer district or its officials or employees (1) any liability or responsibility for damages to any property; or (2) any warranty that any system, installation or portion thereof, that is constructed or repaired under permits and inspections required by this resolution will function properly. In addition, the administrative authority or any employee charged with the enforcement of this resolution acting in good faith and without malice for the authority in the discharge of his or her duties, shall not thereby render himself personally liable and is hereby relieved from personal liability for damage that may occur to any person or property as a result of any act required by this resolution in the discharge of his duties.
- SEC. 6 Definitions:
- (a) Access: Entry into or upon any real estate or structure including any part thereof.
 - (b) Administration: The Johnson County Unified Wastewater District (JCUWD) is hereby designated as the agency responsible for administering the provisions of this regulation.
 - (c) Infiltration: The water entering a sewer system, including sewer service connection, from the ground, through such means as, but not limited to, defective pipes, pipe joints, connections, or manhole walls. Infiltration does not include, and is distinguished from, inflow.
 - (d) Infiltration/Inflow: A combination of infiltration and inflow wastewater volumes in sewer lines, with no way to distinguish either of the basic sources, and with the same effect of usurping the capacities of sewer systems and other sewer system facilities.
 - (e) Inflow: The water discharged into a sewer system, including service connections, from such sources as, but not limited to, roof leaders; cellar, yard, and area drains; foundation drains, cooling water discharges; drains from springs and swampy areas, manhole covers; cross connections from storm sewers, combined sewers, catch basins; storm waters; surface runoff; street washwaters; or drainage. Inflow does not include, and is distinguished from, infiltration.
 - (f) Sanitary Sewage System: A system of pipes, tanks, conduits, structures or other devices for the collection, transportation, storage, treatment or disposal of sewage.
 - (g) Schedule of Compliance: means a schedule of remedial measures and times including an enforceable sequence of actions or operations leading to compliance with any control regulation or effluent limitation.
 - (h) Sewage: means a combination of liquid wastes which may include chemicals, house wastes, laundry wastes, human excreta, animal or vegetable matter in suspension or

solution, and other solids in suspension or solution, and which is discharged from a dwelling, building, or other establishment.

- (i) Sewage Treatment Works: means a system or facility for treating, neutralizing, stabilizing, or disposing of sewage, which system or facility has a designed capacity to receive more than two thousand gallons of sewage per day. The term "sewage treatment works" includes appurtenances such as interceptors, collection lines, outfall and outlet sewers, pumping stations, and related equipment.
- (j) Sewer District: means a special benefit district duly formed, authorized and empowered to plan, construct and operate a public sewerage system.

SEC. 7 Policy.

No person shall henceforth make or allow connection of roof downspouts, interior or exterior foundation drains, areaway drains, or other sources of surface runoff or ground water to a building sewer or building drain which is connected to a public sanitary sewer or directly to a public sanitary sewer, even though such connection may have been allowable when made under then existing standard, rule or regulation.

ARTICLE II-ENFORCEMENT

SEC. 1 Infractions and Penalties

- (a) Obstruction of an Administering Agency: Obstruction of an administering agency is the willful obstruction of or interference with a representative of the agency designated as responsible for administering this resolution when such representative is discharging his or her official duties under this resolution. Obstructing an administering agency is a misdemeanor.
- (b) Failure to Comply with an Administrative Order: Failure to comply with an order is failing or refusing to comply with a written order issued by the administering agency within such reasonable time as the agency may specify in the order. Failure to comply with an agency order is a misdemeanor.
- (c) Penalties: Notwithstanding any other provisions of this resolution, a violation of any provision of this resolution shall be deemed to be an unclassified misdemeanor and punishable by a fine not to exceed two hundred (\$200.00) dollars for each offense, and each day's violation shall constitute a separate offense.
- (d) Prosecution: The District Attorney of Johnson County shall prosecute any violation of the provisions of this resolution.
- (e) Notice of Violation: Proceedings for violation of this resolution shall be in accordance with the provisions of the K.S.A. Chapter 22.

SEC. 2 Civil Remedies

- (a) Disconnect Order. The Administrator of the Johnson County Unified Wastewater District may issue an order directing the owner of a premises to disconnect a private infiltration or inflow source from the sanitary sewer system. The order shall be effective not less than 90 days from its date of issuance. The order may state a deadline for compliance but such deadline shall not be more than one (1) year after issuance of the order.

Within 60 days after receipt of the order the owner may request a review hearing before the JCUWD Administrator by filing a written request therefore with the Director of Health Services. The filing of such request shall act as a stay of the order. After such hearing the JCUWD Administrator may affirm, set aside or modify such order.

- (b) Termination of Service: The Johnson County United Wastewater District may terminate sanitary sewage service to any premises the owner of which refuses to comply with an order to disconnect a storm water inflow source from the sanitary

sewer system. The termination shall be effective 30 days after service upon the owner. Service of the order shall be in person or by restricted delivery mail.

After receipt of the order, the owner may request a hearing by filing a written request therefore with the JCUWD Administrator prior to the termination date. The filing of such request shall act as a stay of the termination order. After hearing, the JCUWD Administrator may affirm, set aside or modify the terms of such order.

- (c) Abatement of Nuisances: The administering agency may maintain a civil action by injunction, in the name of the Board of County Commissioners of Johnson County, to abate and temporarily or permanently enjoin the continuing connection of a private infiltration or inflow source as a nuisance, in any court of competent jurisdiction.
- (d) Any decision of the JCUWD Administrator entered after a review hearing may be appealed de novo to the Board of County Commissioners of Johnson County, Kansas, and the Board may affirm, set aside or modify the order as issued or as modified.

SEC. 3 Access & Entry:

- (a) Access: Representatives of the administering agency shall have the right to make an inspection of such establishments, premises, places and localities for the purpose of determining compliance with this resolution. Inspections shall be done at a reasonable time.
- (b) Notice: If the building, premises or establishment to be inspected is occupied the representative shall first present proper credentials and request entry, and if such building or premises be unoccupied, he shall first make a reasonable effort to locate the owner or other persons having charge or control of the building or premises and request entry.
- (c) Search Warrants: If, after proper request, entry or access is refused, the administering agency may compel such access by application to a court of competent jurisdiction, provided, however, that the agency complies with the provisions of Section 15 of the Kansas Bill of Rights and the fourth amendment to the United States Constitution relating to unreasonable searches and seizures.

ARTICLE III-OWNER ASSISTANCE PROGRAM

SEC. 1 Financial Assistance

Financial assistance in the form of partial or full reimbursement for the cost of disconnecting prohibited infiltration and inflow sources shall be provided to persons who receive and comply with a Disconnect Order as described in Article II, Sec. 2(a). Such reimbursement shall be in the amount and subject to the terms set out in this Article.

SEC. 2 Procedure

Upon verification by the administering agency that a prohibited private sector infiltration or inflow connection exists the agency shall issue a Disconnect Order to the landowner subject to the conditions set out in Article II, Sec 1(a).

The owner shall comply with the order by having the work done by a plumbing or other competent contractor, through self-help, or other means at his or her discretion.

All work shall be done in a workmanlike manner and shall comply with the minimum standards of design for such device, structure, appurtenance or connection. Uniform minimum standards of design shall be established or adopted by the Private Infiltration and Inflow Coordinator as established in Section 4 herein.

After the landowner completes the disconnection the agency shall reinspect the premises to verify compliance with the Disconnect Order and verify that there are no other illegal connections.

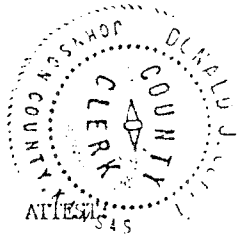
If compliance with this Resolution is verified the agency shall pay to the owner as reimbursement for his or her expense of disconnection an amount equal to the actual cost of labor and materials but not to exceed the following maximum amounts per source:

<u>Source Description</u>	<u>Maximum Amount</u>
(a) Directly Connected Storm Sump Pump.	\$ 800.00 per sump pump
(b) Directly Connected Storm Sump Pump with Divertor Valve	\$ 300.00 per sump pump
(c) Combination Sanitary/Storm Sump Pump.	\$ 1,800.00 per sump pump
(d) Area Drains (Driveway, Patio, Basement Entry, etc.).	\$ 2,200.00 each
(e) Downspout.	\$ 100.00 each
(f) Cleanout.	\$ 250.00 each

Acceptance of reimbursement shall constitute a consent by the person accepting such payment to a reinspection of the premises by the agency within one year following payment for the sole purpose of verifying continued compliance with this Resolution. Such reinspection shall be done at a convenient time.

SEC. 3 Source of Funds
Payment of reimbursement described in Section 2 of this Article shall be made from the capital account of the sanitary sewer district in which the affected property is located.

SEC. 4 Coordinator
There is hereby established within the Johnson County Unified Wastewater Districts the office of "Private Infiltration and Inflow Coordinator". This office shall be responsible for the implementation and administration of this Resolution and is authorized to establish procedures to effectuate and implement its intent.



BOARD OF COUNTY COMMISSIONERS OF
JOHNSON COUNTY, KANSAS

Janet D. Leick
Janet Leick, Chairman

Donald J. Curry
Donald J. Curry, County Clerk

By: *Wilma J. Monday*
Deputy Clerk - Wilma J. Monday

APPROVED AS TO FORM:

Timothy A. Carmody
Timothy A. Carmody
Staff Attorney

Resolution Establishing A Program For The Elimination Of Private Sector Infiltration And Inflow Sources Into The Sanitary Sewer System.

JOHNSON COUNTY CODE OF REGULATIONS FOR
PRIVATE INFILTRATION AND FLOW

1992 EDITION

Johnson County Wastewater Districts
7311 West 130th Street, Suite 100
Overland Park, KS 66213
(913) 681-3200

JOHNSON COUNTY CODE OF REGULATIONS FOR
PRIVATE INFILTRATION AND INFLOW

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CHAPTER I
POLICY AND PURPOSE

ARTICLE I
GENERAL PROVISIONS

- SEC. 1 TITLE. This Code shall be known and may be cited as the Johnson County Code of Regulations for Private Infiltration & Inflow, 1992 Edition.
- SEC. 2 PURPOSE. The purpose of this Code is:
- A. To promote the health, safety and welfare of the public; and
 - B. To prescribe rules, regulations, standards and enforcement procedures for the minimization, control or elimination of the potential and actual sources or causes of storm water infiltration and inflow into the sanitary sewer system operated by the Johnson County Unified Wastewater Districts.
- SEC. 3 AUTHORITY. This Code is adopted pursuant to the authority provided in Johnson County Charter Resolution No. 18-84 and Charter Resolution No. 29-92, and any amendments and modifications thereto, the general powers of K.S.A. §19-101, et. seq., and the powers and authorities established under federal and state laws.
- SEC. 4 SCOPE. This Code shall be applicable to all persons and properties located within any benefit,

improvement, or other lawfully established sewer district, created or operated under the authority and jurisdiction of the Board of County Commissioners of Johnson County, pursuant to Charter Resolution No. 13-34 and Charter Resolution No. 29-92, or other general powers.

SEC. 5 SEVERABILITY. If any clause, sentence, paragraph, section or subsection of this Code shall be adjudged invalid by a court of competent jurisdiction such judgment shall not affect, repeal or invalidate the remainder or any other provision, and shall be confined to the clause, sentence, paragraph, section or subsection which was found invalid.

SEC. 6 DISCLAIMER OF LIABILITY. This Code shall not be construed nor interpreted as imposing upon the County or any sewer district or its officials or employees (1) any liability or responsibility for damages to any property; or (2) any warranty that any system, installation or portion thereof, that is constructed or repaired under permits and inspections required by this Code will function properly. In addition, the administrative agency or any employee charged with the enforcement of this Code acting in good faith and without malice in the performance of their official duties shall

not assume nor have imposed upon them any personal liability, and they are hereby relieved from personal liability for damage that may occur to any person or property as a result of any act required by this Code in the discharge of their official duties.

SEC. 7 AMENDMENTS AND ADDITIONS. This Code may be supplemented or its provisions may be amended by Resolution duly adopted by the Board of County Commissioners, and any such amendments or additions shall be incorporated within and codified as a part of this Code.

SEC. 8 EFFECTIVE DATE. This Code shall become effective on or after June 15, 1992, upon adoption by the Board of County Commissioners and publication as required by law.

ARTICLE 2

DEFINITIONS

SEC. 1 DEFINITIONS. When used in this Code, unless the context specifically indicates otherwise:

1. Access means entry into or upon any real estate or structure, including any part thereof.

2. Administering Agency means the Johnson County Unified Wastewater Districts (JCUWD), or its authorized deputy, agent or representative, which shall be responsible for administering any of the provisions of this Code.
3. Administrator means the Administrator of the JCUWD.
4. Infiltration means the water, other than wastewater, that enters a sanitary sewage system, including sewer service connections, from the ground, through such means as, but not limited to, defective pipes, pipe joints, connections, or manhole walls. Infiltration does not include, and is distinguished from, inflow.
5. Infiltration/Inflow is the total quantity of water from both infiltration and inflow entering a sanitary sewage system without distinguishing the source.
6. Inflow means the water, other than wastewater that enters a sanitary sewer system, including sewer service connections, from such sources as, but not limited to, roof leaders; cellar, yard, and area drains; foundation drains, cooling water discharges; drains from springs and swampy areas, manhole covers; cross con-

nections from storm sewers, combined sewers, catch basins; storm waters; surface runoff; street washwaters; or drainage. Inflow does not include, and is distinguished from, infiltration.

7. Sanitary Sewage System means any property owned by the sewer district or any property in which the sewer district has a property interest and any trunk lines, outfall or intercepting sewer manholes, pumps, pumping stations, lift stations, treatment plants, and any appurtenances and apparatus necessary for the collection, storage, treatment and disposal of sanitary sewage and wastewater.
8. Sewage means a combination of liquid wastes which may include chemicals, house wastes, laundry wastes, human excreta, animal or vegetable matter in suspension or solution, and other solids in suspension or solution, and which is discharged from a dwelling, building, or other establishment.
9. Sewer District means a lawfully established special benefit, improvement, or other district duly formed, authorized and empowered to plan, construct and operate a public sanitary

sewerage system under the authority of the
Board of County Commissioners.

CHAPTER 2
RULES AND REGULATIONS

ARTICLE I
APPLICABILITY

- SEC. 1 DWELLINGS, BUILDINGS, OTHER STRUCTURES. This Code shall apply to all properties, dwellings, buildings or other structures existing as of the effective date of this Code and to any dwelling, building, property or other erected or established from and after the effective date.
- SEC. 2 PREVIOUS REGULATIONS. This Code shall apply uniformly to all properties, dwellings, buildings, or other structures which are or may be connected to or using the sanitary sewage system, regardless of any codes, standards or other authorities which may have applied or continue to apply to such property, dwelling, building or other structure, and no approval, permit, or other authority, under any code or standard, which did or may be construed to allow any connection or other act prohibited by this Code, shall relieve any person from compliance with the requirements of this Code.
- SEC. 3 RESPONSIBILITY FOR COMPLIANCE WITH CODE. It shall be the responsibility of the owner of, and any

occupant having a legal interest in, the property, building, dwelling or other structure to ensure compliance with the provisions of this Code.

SEC. 4 EXEMPTIONS AND EXCEPTIONS. The Administrator may, and is hereby authorized, to issue exemptions or exceptions to the requirements of this Code for specific connections whenever, upon proper application and review under the provisions of Chapter 4, the Administrator finds and determines that:

- A. The disconnection of a particular source or connection, prohibited by this Code, would or could seriously compromise the structural integrity of the dwelling, building or structure; or
- B. The disconnection of a particular source or connection or remediation of the infiltration or inflow would not be cost effective; and
- C. Continuation of the source or connection, otherwise prohibited by this Code, would not, in the opinion of the Chief Engineer of the JCUWD or other JCUWD professional engineer, likely contribute to any sewer back-up or bypass nor adversely impact the effective operation of the sanitary sewage system.

ARTICLE 2

PROHIBITED ACTS AND CONDUCT

SEC. 1 PROHIBITED CONNECTIONS. No person shall make or allow connection of roof downspouts, interior or exterior foundation drains, areaway drains, or other sources of surface runoff or ground water to a building sewer or building drain which is connected to a sanitary sewage system or sources which are connected directly to a public sanitary sewage system.

SEC. 2 REFUSAL TO DISCONNECT. No person shall continue, allow the continuation of, or refuse to disconnect any roof downspouts, interior or exterior foundation drains, areaway drains, or any other drain, connection or source for the entry of surface runoff or ground water into any sewer or the public sanitary sewage system.

SEC. 3 PROHIBITED ALTERATIONS OR REMOVAL. No person shall alter, modify or remove any pump, device or other apparatus, installed or attached at or upon any property for the purpose of preventing or remedying the sources of infiltration or inflow, where such alteration, modification or removal would cause or allow any prohibited connection or unauthorized

source of infiltration or inflow pursuant to the provisions of this Code.

SEC. 4 FALSE OR MISLEADING INFORMATION. No person shall knowingly provide false or misleading information requested by any inspector or code enforcement officer in the performance of their official duties under this Code.

SEC. 5 OBSTRUCTION AND INTERFERENCE. No person shall willfully obstruct or interfere with any inspector, code enforcement officer or other representative of the JCUWD in the performance of their official duties under this Code nor shall any person refuse or obstruct the lawful access and entry upon any property for the purpose of inspection of the premises or property for compliance with the provisions of this Code.

SEC. 6 FAILURE TO COMPLY. No person shall willfully fail or refuse to comply with any ruling, order or determination issued by the Administrator or other authorized officer pursuant to the provisions of this Code.

CHAPTER 3
ENFORCEMENT

ARTICLE 1

VIOLATIONS AND CLASSIFICATION OF OFFENSE

SEC. 1 VIOLATIONS AND CLASSIFICATION. The failure of any person to comply with, or the violation of any provision, requirement, standard or condition contained within or as a part of this Code, shall be a public offense designated as a Class D Infraction under the provisions of the County Codes and Regulations, as adopted pursuant to K.S.A. 19-101d.

SEC. 2 FAILURE TO COMPLY WITH ADMINISTRATIVE ORDER. The failure of any person to comply with, or the violation of any order, directive or notice of the Administrator related to the provisions of this Code, shall be a public offense designated as a Class D Infraction under the provisions of the County Codes and Regulations, as adopted pursuant to K.S.A. 19-101d.

ARTICLE 2

ENFORCEMENT PROCEDURES

SEC. 1 RESPONSIBILITY. The provisions of this Code shall be administered and enforced under the direction of the Administrator and such other persons as the Administrator or the Board may designate.

SEC. 2 CODE ENFORCEMENT OFFICERS. For the purposes of enforcing the provisions of this Code, the following specified positions shall be and hereby are designated as Code Enforcement Officers for Johnson County, Kansas, pursuant to K.S.A. 19-101d, and are authorized and empowered to issue citations and notices to appear in the Johnson County District Court, County Codes Division, for any and all violations:

- A. The Administrator for the JCUWD;
- B. The Chief Engineer of the JCUWD;
- C. The Senior Engineer within the JCUWD responsible for Infiltration and Inflow projects;
- D. The Infiltration/Inflow Planning Coordinator of the JCUWD;
- E. The Senior Infiltration/Inflow Inspector for the JCUWD; and
- F. Each Infiltration/Inflow Inspector for the JCUWD, as appointed by the Administrator.

SEC. 3 ACCESS AND INSPECTION. Any Code Enforcement Officer authorized to enforce this Code shall have authority and be permitted upon reasonable notice and at any reasonable time to enter upon any property for the purpose of performing inspections and other duties required under this Code and shall have the authority to:

- A. Seek a lawful order or search warrant to compel access whenever access is denied; and
- B. Issue necessary orders and directives to expose or uncover any part of any construction or sewer use whenever reasonable access to or inspection of any connection or other apparatus is hindered or prevented.

SEC. 4 DISCONNECT ORDERS AND DIRECTIVES. The Administrator, the Chief Engineer, the Senior Engineer and Infiltration/Inflow Planning Coordinator for Infiltration and Inflow projects of the JCUWD shall be and hereby are authorized to issue disconnect orders and directives to any person subject to any provision of this Code to:

- A. Cease any act, conduct or use which is deemed to be a violation of this Code; or
- B. Correct within a specified period of days any violation of this Code.

SEC. 5 PENALTIES AND FINES.

- A. CLASS D INFRACTION. Any person who violates any provision of this Code shall be punishable, upon conviction, by a fine for a Class D Infraction in an amount not less than fifty dollars (\$50.00) nor more than one hundred dollars (\$100.00).
- B. SEPARATE VIOLATIONS. Each separate day that a violation exists or occurs shall be considered a separate violation, subject upon conviction to an additional and separate fine amount.
- C. MULTIPLE VIOLATIONS. Multiple or repeated violations, occurring within a twelve month period, of any provisions of this Code shall be deemed as a more serious violation and shall be subject, upon conviction, to a fine in an amount not less than Five Hundred Dollars (\$500.00) nor more than One Thousand Dollars (\$1,000.00).

SEC. 6 PROSECUTION OF ACTIONS. The County Counselor, or other person designated by the County Counselor, shall have the duty of prosecuting all actions for the enforcement of this Code that may be prosecuted in accordance with the provisions of K.S.A. 19-101d.

- SEC. 7 AUTHORITY. The County Counselor, or his designee, shall be vested with all of the discretion with respect to the prosecution of this Code as may be vested in any other prosecuting attorney with statutory authority to prosecute actions for the enforcement of county codes and resolutions.
- SEC. 8 ENFORCEMENT PROCEDURES CUMULATIVE. The provisions for enforcement of this Code shall be cumulative and in addition to all other procedures provided by law for the enforcement of county resolutions, codes or regulations.
- SEC. 9 OTHER ACTIONS. All actions that are not authorized by the provisions of this Code for the enforcement of said regulations, shall be prosecuted as otherwise provided by law.
- SEC. 10 CIVIL REMEDIES. In addition to any criminal or penal enforcement proceedings authorized under this Code, the County Counselor or his designee shall be and hereby is authorized, upon request from the Administrator or the Board of County Commissioners, to commence civil legal proceedings, within the District Court for Johnson County, Kansas, for an order of abatement, mandatory or prohibitory injunction, or such other relief as may be legally authorized to enforce the intent, purpose and provisions of this Code.

CHAPTER 4

APPEALS AND ADMINISTRATIVE PROCEDURES

ARTICLE 1

APPEALS

- SEC. 1 FILING. Any person aggrieved by any order, directive or other action taken pursuant to the provisions of this Code, other than a citation or legal enforcement proceeding, may file an appeal seeking review of the decision or other action. Any appeal filed pursuant to this Section shall be made in writing and shall be mailed or delivered to the Administrator within thirty (30) days from the date of the order, directive or decision for which the appeal is filed.
- SEC. 2 ADMINISTRATOR REVIEW. Upon receipt of any appeal filed under this Section, the Administrator shall, within fourteen (14) days, review the appeal and either schedule the appeal for hearing or, if no hearing is requested, notify the appellant of the determination made on the appeal. Any appeal not scheduled for hearing or having a determination made within thirty (30) days after filing shall be deemed denied.
- SEC. 3 INVESTIGATION. The Administrator may cause an investigation to be made on any appeal filed under

this Section and may request that the appellant submit such information or permit such inspection as may be reasonably necessary for a determination of the appeal. Whenever an investigation is deemed necessary or advisable by the Administrator, notice shall be mailed to the appellant and the times established for hearings and determinations under this Code shall then be extended to the conclusion of all investigation or inspection activities.

SEC. 4 DECISIONS. The Administrator shall issue a written decision on each appeal, and a copy of the decision shall be mailed to the appellant. In rendering a decision, the Administrator may affirm, modify or rescind any order, directive or other action subject to the appeal and may issue such supplemental order, directives or decisions, consistent with the provisions of this Code, as the Administrator deems advisable.

ARTICLE 2

REVIEW OF ADMINISTRATIVE APPEAL

SEC. 1 PETITION FOR REVIEW. Any person who has filed an appeal under Article 1 of this Chapter may seek a review of the final decision or determination of the Administrator by filing a written petition for review with the Office of the Board of County

Commissioners. Any petition for review made under this Section must be filed with the Board within fourteen (14) days after mailing of the final decision of the Administrator.

SEC. 2 REVIEW PROCEEDINGS. Upon receipt of any petition for review, the Board shall schedule a de novo hearing to consider and review the petition. The Board may conduct the hearing as a Board or may designate a hearing officer or other official to conduct the hearing. Written notice of the hearing shall be mailed to the petitioner, and the petitioner may appear in person and/or by counsel and may present evidence and statements related to the request for review.

SEC. 3 DECISION. Upon consideration of any petition for review of any determination of the Administrator, the Board or its designated hearing officer or official may affirm, modify or set aside the order, directive or other action and shall render its decision in writing. The decision of the Board or officer shall be a final decision, shall be made in writing, and a copy shall be sent to the Petitioner.

CHAPTER 5
OWNER ASSISTANCE PROGRAM

ARTICLE 1
REIMBURSEMENT AND PROCEDURE

- SEC. 1 FINANCIAL ASSISTANCE. Financial assistance in the form of partial or full reimbursement for the cost of disconnecting prohibited infiltration and inflow sources may be provided to qualified persons who receive and comply with a disconnect order issued for a property, building, dwelling or other structure erected prior to January 1, 1986. Such reimbursement shall be in the amount and subject to the terms set out in this Article.
- SEC. 2 PROCEDURE UPON NOTIFICATION. Upon verification by the Administering Agency that a prohibited private sector infiltration or inflow connection exists at or upon any property, dwelling, building or structure erected prior to January 1, 1986, then the Agency shall issue a disconnect order to the owner and shall notify the owner of the procedures and guidelines necessary to qualify for financial assistance.
- SEC. 3 OWNER COMPLIANCE. Upon receipt of the disconnect order and notification of procedures, the owner of

the property shall, within the time specified by the order or such other time requested from and permitted by the Administrator, undertake whatever work, action, construction or installation as may be necessary to comply with the requirements of this Code and the disconnect order. Representatives from the JCUWD shall provide technical assistance and required guidelines to the owner but the owner shall be solely responsible for any and all decisions, actions and work performance necessary to comply with this Code. The owner may, in his or her discretion, complete the required work performance through self-help methods, by contract with a plumbing or other competent contractor, or other means satisfactory to any applicable building code or other requirements.

SEC. 4 MINIMUM STANDARDS. All work shall be performed in a workmanlike manner, shall comply with the minimum standards of design established or adopted by the Infiltration and Inflow Planning Coordinator of the JCUWD, and shall be sufficient and adequate to complete all necessary disconnection of the infiltration or inflow source.

SEC. 5 PROCEDURE AFTER DISCONNECTION. After the owner has completed the disconnection or other specified actions, the Administering Agency shall reinspect

the premises to verify compliance with the disconnect order and verify that there are no other illegal connections. The agency shall not verify nor be responsible for proper design or installation of any work performed or equipment installed.

SEC. 6 PAYMENT QUALIFICATIONS. To qualify for payment of any costs for the disconnection or removal of any private infiltration or inflow source, the owner of the property must:

- A. Complete the work as required under this Code;
- B. Submit to the JCUWD all bills, receipts, contracts or work orders required for compliance; and
- C. Certify that the connection or source was in existence on or before January 1, 1986.

SEC. 7 REIMBURSEMENT SCHEDULE. If compliance with this Code is verified, the administering agency may pay to the homeowner, or his agent, as reimbursement for his/her expense of disconnection an amount not to exceed the following maximum amounts per source:

	<u>Source Description</u>	<u>Maximum Amount</u>
(1)	Directly Connected Storm Sump Pump	\$ 300.00 per sump pump
(2)	Directly Connected Combination Sump Pump	\$1,300.00 per sump pump
(3)	Foundation Drain Sump Pit	\$ 300.00 per sump pit
(4)	Combination Foundation Drain Sump Pit	\$1,300.00 per sump pit
(5)	Area Drains (Driveway,	\$2,200.00 per

	Window Well, Patio, Yard)	area drain
(6)	Area Drains (Basement Entry)	\$ 850.00 per drain
(7)	Downspouts	\$ 100.00
(8)	Cleanouts	\$ 250.00
(9)	Auxiliary Back-up Pump (only allowed with separate authorization)	\$ 400.00
(10)	Buried Solid Discharge Pipe	\$ 3.50 per ft.
(11)	Buried Shallow Lateral Pipe	\$ 6.00 per ft.
(12)	Buried Deep Lateral Pipe	\$ 10.00 per ft.

SEC. 8 SELF-HELP. If the homeowner chooses to disconnect by means of self-help, the Administering Agency may reimburse the landowner for materials only, in an amount not to exceed the above maximum amounts per source. Acceptance of reimbursement shall constitute a consent by the person accepting such payment to a reinspection of the premises by the administering agency within five (5) years following payment for the sole purpose of verifying continued compliance with this Code. Such reinspection shall be done at a convenient time.

SEC. 9 MAINTENANCE AND FOLLOW-UP. The owner of the property shall be responsible for all maintenance of any device, equipment, or other materials installed as a part of the required disconnection. Any and all repair, warranty or other follow-up work shall be the obligation of the property owner and his or her contractor, if any, and not the JCUWD. Any and

all costs of repair, replacement or maintenance, incurred or arising after the initial payment or reimbursement by JCUWD shall be paid by the owner and shall not be subject to any other reimbursement by JCUWD.

CHAPTER 6
MISCELLANEOUS PROVISIONS

ARTICLE 1
PROGRAM IMPLEMENTATION

SEC. 1 SOURCE OF FUNDS. The payment of any costs or reimbursements authorized under this Code shall be made from the capital improvement fund of the JCUWD.

SEC. 2 COORDINATOR. Except as otherwise specified, the office of the Infiltration and Inflow Planning Coordinator within the Johnson County Unified Wastewater Districts shall be responsible for the implementation of all administrative procedures under this Code and shall be and hereby is authorized to establish and adopt procedures and guidelines necessary to effectuate and implement the intent purpose, and technical standards required under the provisions of this Code.

I/I INSPECTOR'S GUIDELINES

I. Approach House/Building

- A. Inspectors shall be well groomed, neat in appearance and in uniform. They shall approach the front door using the driveway and sidewalks (inspectors shall avoid walking in home/building owners yard when approaching the structure).

II. Introduction and Identification

- A. Inspector shall present identification to occupant for examination.

- B. Introduction Speech:

Hello, my name is _____. I am an inspector with Johnson County Unified Wastewater Districts and we are performing additional testing as a result of building inspections and smoke tests from previous summers. We would like permission to inspect and test your storm water drainage facilities both in and around your home/building.

III. Topics to Discuss with Occupants

- A. Flooding history of house/building.

- B. Purpose of the inspection:

- 1. To discover and verify storm water drainage and sanitary sewer I/I connections.

- C. At each inspection site it must be determined if the current occupant is the actual homeowner. If this information is not available from the person being surveyed, be certain to indicate on the inspection form that the owner of record needs to be determined.

- D. Explanation of inspection procedures:

- 1. Visual inspection of outside property, checking for area drains, basement entry drains, driveway drains and roof drains or down spouts piped underground.
- 2. Visual inspection inside home/building of basement drainage. Check for sump pump and/or sump pit in basement.

- E. Testing procedures for suspect sources:

- 1. Dye test should be explained to homeowner/tenant: explain purpose of test and assure occupant that dye is non-toxic, biodegradable, etc. Testing procedures are followed according to dye testing procedures.

- F. If no sources are confirmed:

- 1. Thank occupant for participating in survey and field testing, replace any sump covers, draining grates, etc., disturbed during testing. Clean-up any dye residue and leave. Inform the occupant that no further action will be needed on their part.

- G. If suspect sources are found and confirmed:
1. Explain to occupant that they will receive a letter explaining test results.
 2. Briefly explain that funds are available, up to a certain maximum, to pay for any changes required by our inspections and testing.
 3. Do not discuss any specific policies of the reimbursement program or recommend any particular contractor to the homeowner/tenant. Refer questions to supervisor and give telephone number.

IV. Refused Entries

- A. If the resident refuses entry for inspection or testing, the inspector will politely thank the resident and leave the premises. Do not attempt entry or argue with any uncooperative occupant!
- B. Indicate on the inspection form that entry was refused and route the form to the I/I Planning Coordinator.

V. Protecting Private Property

- A. Damage to private property must be avoided at all times. Great care should be exercised to avoid damage to yard, trees, bushes, flowers, etc.
- B. Care must be exercised when dye testing suspect inflow sources to prevent dye from staining gutters, down spouts, siding, trim or any sidewalk or paved surfaces both in and around the property.
- C. Care must also be taken if pets are encountered during inside or outside inspections. If you feel that there is a possibility of being bitten or that the yard or house can't be entered safely, request that the homeowner/tenant restrain the pet during inspection and testing.
- D. If the homeowner/tenant is unavailable and there is a pet in the yard, great care should be exercised before entering the yard. If there is any question of personal safety, do not enter the yard.



Building Inspection Form

Insector: _____

Date Scheduled: ____/____/____ Time: _____

Address: _____

Inspection Date: _____

Line Segment

US Mh: _____

DS Mh: _____

Inspection Status: 1. Completed 2. Not Home 3. Vacant
4. Refuse Entry 5. Call Back

Occupant Name: _____

Day Phone # _____ Eve Phone # _____

Owner Name: _____

Day Phone # _____ Eve Phone # _____

Flood History

Previous Flooding :- ----- 1. None 2. Sewer Backup 3. Storm water

Flooding Source :- ----- 1. Basement Drains 2. Wall / Floor 3. Yard 4. Other: _____

If Sewer Backup, was it Reported :- ---- 1. No 2. Yes 3. Do Not Know 4. Other: _____

Building Type :- ----- 1. One Family 2. Multifamily 3. Apt 4. Comercial 5. Industrial 6. School
7. Church 8. Other: _____

Foundation Type :- ----- 1. Slab 2. Crawl Space 3. Partial (4' to 5' Depth) 4. Basement

Elevation of Service Pipe :- ----- 1. Below Floor 2. Above Floor 3. Overhead

Basement Finished :- ----- 1. No 2. Partial (near sump) 3. Full

Existing Floor Drain(s) :- ----- 1. No 2. Yes 3. Unknown 4. Hole in Casting

Sump Pit Data

Sump Pit Exists :- ----- 1. No 2. Yes 3. Unknown

Sump Pit Type :- ----- 1. Sanitary 2. Storm 3. Combination 4. Unknown

Sump Pit Sealed :- ----- 1. No 2. Yes 3. Unknown

Sump Pit Condition :- ----- 1. Dry 2. Wet 3. Active Water

Drains Laundry / Bathrooms(s) :- ----- 1. No 2. Yes 3. Unknown

Drains Basement :- ----- 1. No 2. Yes 3. Unknown

Foundation Drains Connected :- ----- 1. No 2. Yes 3. Unknown

Drain in Sump Pit :- ----- 1. No 2. Yes 3. Unknown

Sump Pump Data

Sump Pump Exists :- ----- 1. No 2. Yes 3. Unknown

Sump Pump Active :- ----- 1. No 2. Yes 3. Unknown

Discharge Point :- ----- 1. Sanitary Sewer 2. Outside 3. Sump Drain 4. Unknown

Diverter Valve :- ----- 1. No 2. Yes 3. Unknown

Building Status :- ----- 1. Suspect 2. Negative 3. Positive 4. Repaired

Comments

JOHNSON COUNTY UNIFIED WASTEWATER DISTRICTS
I/I INSPECTION FORM

PERMIT # _____ ENTERED IN DATA BASE? _____

TYPE OF INSPECTION: _____ VERIFY DISC. PROJECT/PHASE
_____ CONSULTATION MT#1 _____
_____ DYE TEST ICM1 _____
SMTC _____

STREET ADDRESS: _____

OCCUPANTS NAME: _____

TELEPHONE # HM: _____ WK MR/MRS _____

LINE SEGMENT: () _____ () _____ DATE INSPECTED ___ / ___ / ___

INSPECTOR: _____ TIME OF INSPECTION _____

PLUMBER: _____ BID PRICE \$ _____

RELEASE RECEIVED? Y/N _____

SOURCES EXAMINED:

PUMPS OR PITS: _____ STORM SUMP PUMP _____ SUMP PIT
_____ COMBO SUMP PUMP _____ COMBO PIT
_____ UNSEALED SUMP PUMP _____ OTHER

AREA DRAINS: _____ B/ENTRY # _____ DRIVEWAY
_____ PATIO _____ WINDOW WELL

OTHER SOURCES: _____ DOWNSPOUTS # _____ CLEANOUT
_____ MISC. _____

BULK BID: _____

COMMENTS: _____

SKETCH: _____

PLEASE READ

NOTICE TO RESIDENT

JOHNSON COUNTY
UNIFIED WASTEWATER DISTRICTS
IS COLLECTING INFORMATION THAT
WILL LEAD TO IMPROVEMENTS IN
THE SANITARY SEWER SYSTEM.
THE DISTRICTS WERE RECENTLY AT YOUR HOME
FOR THE REASONS CHECKED BELOW:

- TO PERFORM AN INTERIOR AND EXTERIOR INSPECTION OF STORM DRAINAGE FACILITIES AT YOUR HOME. (PLEASE FILL IN AND MAIL THE ATTACHED CARD SO THE DISTRICTS MAY COMPLETE THE SURVEY).

- TO PERFORM A FINAL INSPECTION OF THE PLUMBING MODIFICATIONS AT YOUR HOME. PLEASE CONTACT THE I/I COORDINATOR AT THE NUMBER LISTED BELOW SO THE DISTRICTS MAY COMPLETE THIS INSPECTION.

FOR ANY QUESTIONS CONTACT THE I/I DEPARTMENT
AT 338-1300

YOUR COOPERATION IS APPRECIATED

DETACH CARD

PLEASE RETURN THIS CARD WITHIN 15 DAYS

INDICATE THE TIME AND DATE FOR THE INSPECTION
AT YOUR CONVENIENCE.

PLEASE SCHEDULE APPOINTMENT AT LEAST
FIVE (5) WORKING DAYS FROM MAILING DATE

TIME _____ (9 AM - 4 PM)

DATE _____ (MON - FRI)

NAME _____

STREET ADDRESS _____

CITY _____

PHONE NUMBER _____

Johnson County Wastewater Districts

Infiltration/Inflow Removal Program
Follow up I/I Inspection Form

Project/Phase _____ / _____

Site Address _____
Name _____
Owner Address _____
Original Disc Date _____

Date Scheduled _____ Time _____
Home# _____
Work# _____ Ext _____
Contact _____
Inspector _____



Contractor (s) _____

Source (s) _____

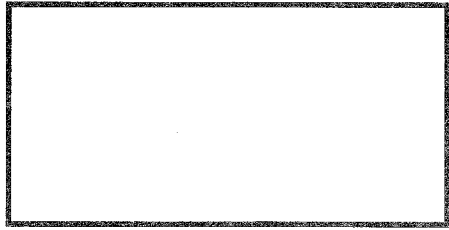
Comments: _____

Inspection Checklist	Pass / Fail	
	y	n
GFCI	<input type="checkbox"/>	<input type="checkbox"/>
Pump	<input type="checkbox"/>	<input type="checkbox"/>
Inside Piping	<input type="checkbox"/>	<input type="checkbox"/>
Discharge Point	<input type="checkbox"/>	<input type="checkbox"/>
Back-Up System (if installed)	<input type="checkbox"/>	<input type="checkbox"/>
Source Capped	<input type="checkbox"/>	<input type="checkbox"/>

This inspection is provided solely to determine continued compliance with County Resolution No. WD 92-22 adopting Regulations for Private Infiltration/Inflow, as amended, and with County Resolution No. WD 85-96, its predecessor, and does not warrant the proper design or installation of any work performed or equipment installed pursuant to permits and inspections thereunder.

Site Sketch

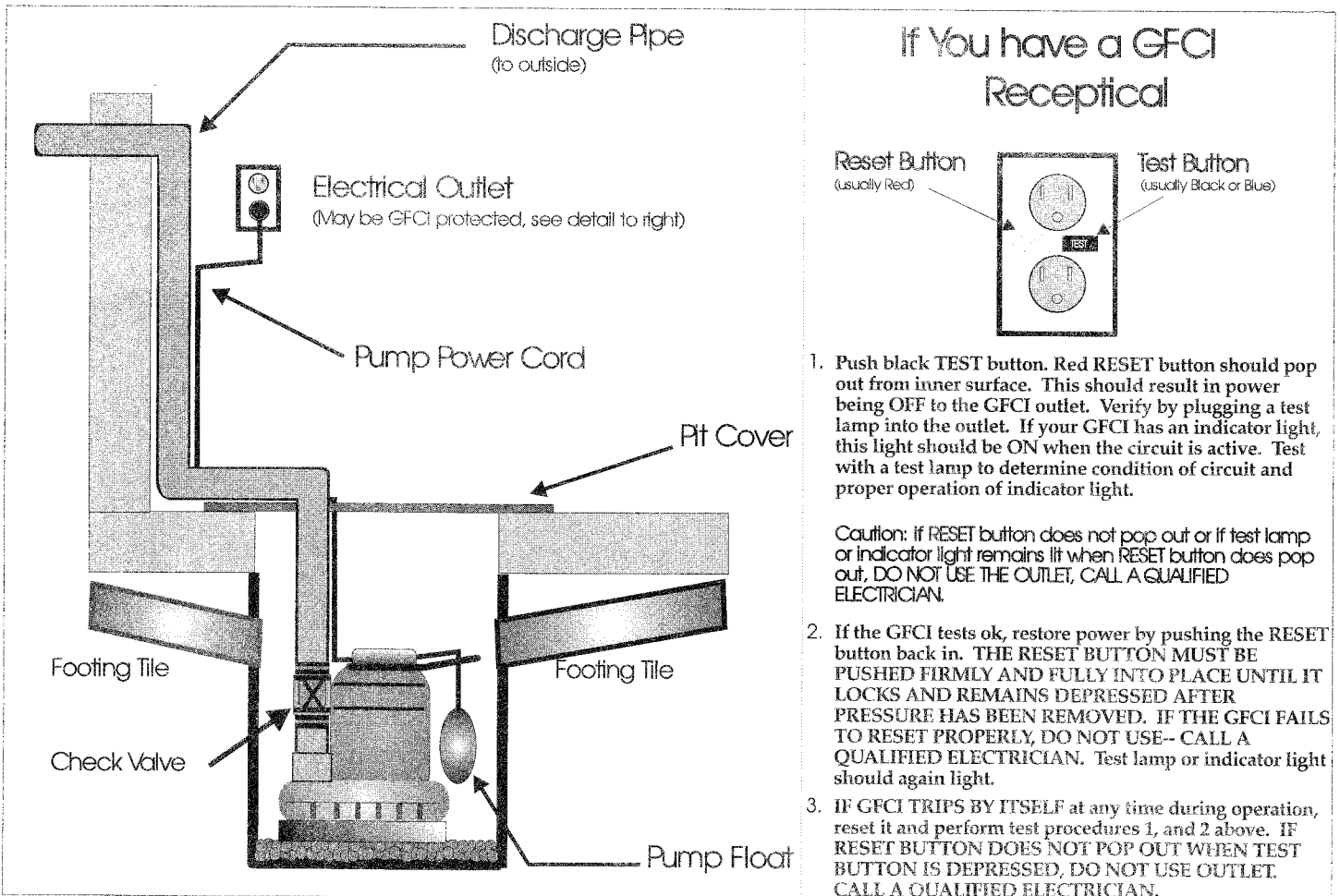
Indicate North



Tips on how to keep your sump pump working

Most pump failures occur due to lack of regular maintenance. The best way to insure that your pump will work when you need it most, is by testing it regularly. You can avoid most problems by performing some very simple, routine maintenance.

1. If your installation is equipped with a GFCI (ground fault circuit interrupter) receptical, it should be tested monthly. (see instructions below)
2. Every three to four months, pour enough water into the pit to activate the pump and assure its proper functioning. (once before the spring rainy season, and once before the fall rainy season should be the minimum)
3. Once a year, remove the pit cover and inspect the pit for debris. The pit should be free of any debris or foreign objects that would prevent the pump float from moving freely up and down.



JOHNSON COUNTY UNIFIED WASTEWATER DISTRICTS

Date _____
Name _____
Address _____
City _____
Telephone _____

AGENDA FOR APPEALS

- I. INTRODUCTION
- II. GENERAL HISTORY OF SEWER BACKUPS AND INFILTRATION/INFLOW PROGRAM
 - A. Map of Watershed
 - B. Smoke Test Report
 - C. History of Backups Recorded in Specific Basins.
- III. DATA PERTAINING TO ADDRESS
 - A. Building Inspection Report
 - B. Smoke Test Report
 - C. Johnson County Unified Wastewater Districts' Test and Notification to Building Owner.
- IV. BUILDING OWNER'S APPEAL
- V. CONCLUSION
 - A. Appeal is a Stay of the Disconnect Request
 - B. Building Owner Shall be Notified in Writing of Administrator's Decision.

RELEASE

"Releasor" is the party executing this Release. The pronoun "he" used in this Agreement with reference to the parties signing this Release shall refer to the Releasor, whether a natural or legal person, male or female, singular or plural. "Releasee" refers to the Board of County Commissioners of Johnson County, Kansas as Governing Body of Johnson County Unified Wastewater District and member districts thereof.

RECITALS

- A. Releasor is the owner of certain property located in Johnson County, Kansas, described as:

- B. Releasor received a Disconnect Request from the Releasee pursuant to Johnson County Resolution No. W.D. 92-22 (originally enacted as W.D. 85-96) directing the Releasor to disconnect a _____ from the sanitary sewer owned and operated by Releasee. Releasee has inspected the premises referred to in Paragraph A and has determined that the releasor has complied with the terms of the Disconnect Request. The Releasor seeks reimbursement for his expenses in complying with the Disconnect Request in accordance with Article III of Resolution No. W.D. 85-96.

- C. Releasor understands that the Releasee disclaims any and all liability and warranties, expressed or implied, arising from or out of the design, materials or workmanship obtained by or performed by the Releasor which were required to comply with the Disconnect Request. Releasor understands his request for reimbursement is his voluntary act and is giving this Release in exchange for such reimbursement.

- D. The Releasor states that no promise or inducement has been offered or made except as herein set forth; that this Release is executed without reliance on any other statement or representation by Releasor or by any agents of the Release. Releasor is of legal age and is legally competent to execute this agreement and accepts the full responsibility therefore.

In consideration of \$ _____ which is reimbursed directly to the contractor, as requested by the Releasor; Releasor releases and discharges Releasee from any and all claims whether presently known or unknown arising from the above described compliance of the Disconnect Request. It is understood that this Release shall inure to the benefit of the Releasee, its successors and assigns, and that it shall bind Releasor and his heirs, legal representatives, assign and successors and interests to the above described real property.

IN WITNESS WHEREOF, the Releasor has executed this Release at _____, on the day and year indicated next to his signature.

DATE

DATE

RDT/ksw
731988

I/I LETTERS

April 7, 1997

Property Owner
123 Main Street
Any Town, USA 12345

Re: Request for Building Inspection--Sanitary Sewer Evaluation at 123 Main Street

Dear Property Owner:

Johnson County Unified Wastewater Districts is completing a sewer evaluation survey in your area that will lead to improvements to the sanitary sewer system. Excess stormwater and groundwater entering the sewer system during wet weather periods contribute to basement flooding and sewer back-ups during and after periods of heavy rainfall.

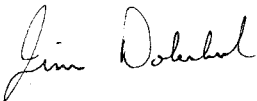
A physical inspection of each building is required to provide accurate information on sewer capacity requirements, as well as information on any past flooding or back-up problems. The inspection, which takes approximately 10 minutes, consists of an inside and outside survey performed by a Wastewater Districts inspector. All inspectors carry photo identification.

To schedule an appointment for a building inspection you may contact the Districts' building inspector at 681-3200, ext. 2172 during regular business hours (8:00 a.m.-5:00 p.m. weekdays). An inspector will be available from April 14, 1997, through April 21, 1997. If an inspection is not possible during these hours, an appointment can be scheduled on an individual basis.

Your cooperation is requested to insure the completion of this beneficial project currently underway in Johnson County. If the Districts has not heard from you by April 28, 1997, an inspector will contact you to schedule an appointment.

If you have any question, please contact the Districts at 681-3200, ext. 2172.

Cordially,



Jim Doleshal
Senior Inspector
Infiltration/Inflow Removal

RDT/jbb

cc: Ron Thomann, Planning Coordinator

PLEASE RETURN THIS CARD WITHIN 15 DAYS

INDICATE THE TIME AND DATE FOR THE INSPECTION
AT YOUR CONVENIENCE.

PLEASE SCHEDULE APPOINTMENT AT LEAST
TEN (10) WORKING DAYS FROM MAILING DATE

TIME _____

DATE _____

(MON - FRI)

NAME _____

STREET ADDRESS _____

CITY _____

PHONE NUMBER _____

January 30, 1998

Property Owner
123 Main Street
Any Town, USA 12345

Re: Request for Building Access -- Sanitary Sewer Evaluation at 123 Main Street

Dear Property Owner:

Johnson County Unified Wastewater Districts requested in a December 31, 1997, letter, that you contact their office to arrange for an inspection of your building as required under the Districts' Sewer Rehabilitation Program; no response was received. The cooperation of all Johnson County residents is required so that a complete survey of the sanitary sewer system, including connections on private property, can be obtained.

A physical inspection of each building is required to provide accurate information on sewer capacity requirements, as well as information on any past flooding or back-up problems. The inspection, which takes approximately 10 minutes, consists of an inside and outside survey performed by a Wastewater Districts inspector. All inspectors carry photo identification.

To schedule an appointment for a building inspection you may contact the Districts at 681-3200, extension 2172 during regular business hours (8:00 a.m. - 5:00 p.m. Weekdays), or you may indicate your choice for an inspection date and a phone number where you can be reached during the day on the enclosed postage paid card and mail it within 15 days.

Your cooperation is requested to ensure the success of this beneficial project currently underway in Johnson County.

If you have any questions regarding this inspection, please contact the Districts at 681-3200, extension 2172.

Cordially,



Ron Thomann
Planning Coordinator
Infiltration/Inflow Removal

RDT/rdt

cc: Jim Doleshal, Senior Inspector

February 26, 1998

Property Owner
123 Main Street
Any Town, USA 12345

Re: Access to Building-Sewer Evaluation Study at 123 Main Street

Dear Property Owner:

By letter dated December 31, 1997, Johnson County Unified Wastewater Districts requested that you contact this office to arrange for an inspection of your building under the Districts Infiltration/Inflow Removal Program; however, no response was received.

Subsequently, another letter was mailed to you on January 30, 1998, requesting that you contact the Districts office within fifteen (15) days to arrange for inspection; again, no response was received.

To schedule an appointment for a building inspection, you may contact the Districts at 681-3200, ext. 2172 during regular business hours. **If you fail to contact this office within 15 days, the Districts will regard this as denying access to the premises, which will precipitate further action.**

Pursuant to County Resolution No. W.D. 92-22 the Districts may select one of the following remedies:

1. Seek a lawful order or search warrant to compel access whenever access is denied (Chapter 3, Article 2, Section No. 3).
2. Commence civil legal proceedings, within the District Court for Johnson County, Kansas, for an order of abatement, mandatory or prohibitory injunction, or such other relief as may be legally authorized to enforce the intent, purpose and provisions of this code (Chapter 3, Article 2, Section No. 10).

To prevent further action, please contact the Districts at 681-3200, extension 2172.

Sincerely,



Ron Thomann
Planning Coordinator
Infiltration/Inflow Removal

cc: Douglas L. Smith, Director of Development Services
John A. Metzler, Chief Engineer
Richard Lind, Assistant County Counselor

CHIEF COUNSEL
Donald D. Jarrett

CHIEF DEPUTY COUNTY COUNSELOR
LeeAnne Hays Gillaspie



LEGAL DEPARTMENT
JOHNSON COUNTY, KANSAS

DEPUTY COUNTY COUNSELORS
Nicholas Saldan
Richard J. Lind

ASSISTANT COUNTY COUNSELORS
Roger L. Tarbutton
Robert A. Ford
Mary Martin Buhl
Cynthia C. Dunham
William G. Howard
Frank S. Reeb

March 23, 1998

Dear

Recently I was notified by the Johnson County Unified Wastewater Districts (Districts) that despite your having received three (3) previous written requests, the Districts have been unable to obtain your permission to inspect your building located at or about _____. As the correspondence you previously received from the Districts indicated, the requested inspection is necessary to ensure that stormwater or groundwater from your building will not enter the public sewer system during periods of wet weather, thereby contributing to basement flooding and sewer back-ups which can occur on other properties during and after periods of heavy rainfall. Furthermore, the inspection will provide the Districts with necessary information on sewer capacity requirements, as well as a past history of flooding or sewer back-up problems.

I am, therefore, requesting your immediate cooperation with the Districts regarding this matter. You are hereby requested to contact Mr. Jim Doleshal, Senior Inspector (913-681-3200, Ext. 2105) no later than the close of business Monday, April 2, 1998, in order to schedule an appointment for the inspection of your building.

Please be advised that in the event you fail to act in accordance with the directions of this letter, then this office intends to take all necessary legal action available in order to compel involuntary access to your property for purposes of conducting the inspection. As such, you may wish to obtain private legal counsel to assist and advise you concerning your legal rights and obligations.

Your prompt attention to and cooperation with this matter would be greatly appreciated. Any questions you may have should be presented either to Mr. Doleshal or myself in a timely manner.

Sincerely,

Richard J. Lind
Deputy County Counselor

RJL:ksw
cc: Jim Doleshal

DRAFT



Johnson County, Kansas

April 3, 1998

RE: Sanitary Sewer Inspections

Dear

I have been informed by the Johnson County Unified Wastewater Districts that they have not received any response from the letter dated March 23, 1998, from Richard J. Lind, Deputy County Counselor. This letter requested your cooperation in allowing an inspection of the sewer facilities on your property to determine if any storm or ground water was entering the sanitary sewers. While you may not have experienced basement flooding, this could cause flooding for someone near you.

The third paragraph of the March 23, 1998, letter, which was the fourth such letter sent to your address concerning this matter stated; "Please be advised that in the event you fail to act, in accordance with the directions of this letter, then this office intends to take all necessary legal action available in order to compel involuntary access to your property for purposes of conducting the inspection. As such, you may wish to obtain private legal counsel to assist and advise you concerning your legal rights and obligations."

Therefore, in accordance with the paragraph above, a lawsuit will be filed on May 6, 1998, against you in District Court of Johnson County to require your compliance with the Code of Regulations for Private Infiltration/Inflow, 1992 Edition, adopted by Resolution No. W.D. 92-22.

It is with reluctance that we take this action; however, as over 51,000 other homes and buildings within the sewer system have been voluntarily inspected, we must pursue this Court action to complete the program.

If you wish to avoid being named a defendant to this lawsuit, please contact Jim Doleshal, Johnson County Unified Wastewater Districts, 681-3200, Ext. 2105, prior to May 6, 1998, to arrange a voluntary inspection. Otherwise, you may expect to be receiving your summons to answer as a party to the lawsuit shortly thereafter.

Sincerely,

Roger L. Tarbutton
Assistant County Counselor

cc: Board of County Commissioners
E. H. Denton, County Administrator
Don Jarrett, Chief Counsel
Douglas L. Smith, Wastewater Administrator
John A. Metzler, Chief Engineer
Ron Thomann, I/I Coordinator
Jim Doleshal, Senior I/I Inspector

IN THE DISTRICT COURT OF JOHNSON COUNTY, KANSAS
CIVIL COURT DEPARTMENT

THE BOARD OF COUNTY COMMISSIONERS)
OF JOHNSON COUNTY, KANSAS, AS THE)
GOVERNING BODY OF THE JOHNSON)
COUNTY UNIFIED WASTEWATER DISTRICTS)

Plaintiff,)

vs.)

Defendants.)

Case No. _____
Court No. _____
K.S.A. Chapter 60

PETITION FOR ORDER COMPELLING COMPLIANCE

COMES NOW the Plaintiff Board of County Commissioners of Johnson County, Kansas, (hereinafter referred to as the "Board"), as the Governing Body of the Johnson County Unified Wastewater Districts, (hereinafter referred to as the "Dis-

tricts"), and for its cause of action against Defendants states and alleges as follows:

1. This action is brought pursuant to K.S.A. 60-901 et seq.

2. Johnson County, Kansas, is a municipal corporation and political subdivision of the State of Kansas pursuant to K.S.A. 19-101 et seq.

3. The Board of County Commissioners is the Governing Body of Johnson County, Kansas, and the Johnson County Unified Wastewater Districts, (which is located within the boundaries of Johnson County , Kansas), pursuant to K.S.A. 19-101a et seq. and Charter Resolution 29-92 adopted February 20, 1992.

4. The Defendants are residents of and/or own real estate located within Johnson County, Kansas, and may be served at the addresses set forth on Schedule "A" attached to this Petition and incorporated by reference herein.

5. The Board, as the Governing Body of the Districts, has the authority to exercise such powers of local legislation and administration as may be necessary and convenient for the purpose of providing sewer services and governing the operation and transaction of the business of the Districts pursuant to K.S.A. 19-101a et seq. and Charter Resolution 29-92 and may adopt any rule, regulation, standard limitation or requirement which may be necessary for the efficient and economical operation of the Districts pursuant to Section 2(N) of Charter

Resolution 18-84 adopted June 7, 1984, as subsequently amended and superseded by Section 4(K) of Article I of Charter Resolution No. 29-92 adopted February 20, 1992.

6. Pursuant to the above-referenced authority, and in compliance with state and federal environmental protection regulations, the Board adopted on October 3, 1985, by Resolution No. W.D. 85-96, a Program for the Reduction of the Number of Private Sector Infiltration and Inflow Sources into the Sanitary Sewer System, which was subsequently superseded, amended and codified by the Johnson County Code of Regulations for Private Infiltration and Inflow, 1992 Edition, (hereinafter referred to as the "Code"), adopted on June 4, 1992, by Resolution No. W.D. 92-22 (the program as established under both Resolutions is hereinafter referred to as the "Johnson County Remediation Program").

7. The purpose of the Johnson County Remediation Program is to reduce or eliminate the introduction of stormwater into the sewer system by prohibiting the connection of roof downspouts, interior or exterior foundation drains, area-way drains, or other sources of surface runoff or ground water directly to a public sanitary sewer or to a building sewer or building drain which is connected to a public sanitary sewer. Such stormwater/groundwater has an adverse impact on the effective treatment of wastewater, creates conditions that pollute waterways, and poses a direct threat to the public

health and safety by causing sewer back-ups and by-passes as well as stream and ground pollution.

8. In order to assist in funding the Johnson County Remediation Program the Board applied for and received certain loans and grants from the Kansas Department of Health and Environment (hereinafter "KDHE") and the United States Environmental Protection Agency (hereinafter "EPA"), the terms of which require inspection and removal of prohibited private infiltration and inflow sources from the three oldest main sewer districts which have historically experienced the most frequent problems with sewer back-ups and by-passes due to excess infiltration and inflow of storm water into the sanitary sewer system - the Mission Township Main Sewer District No. 1, Indian Creek Main Sewer District No. 1, and the Shawnee and Mission Townships Turkey Creek Main Sewer District No. 1 (hereinafter referred to as the "Private Infiltration/Inflow Removal Program"). To date, approximately \$10,422,942.00 has been expended under the Private Infiltration/Inflow Removal Program which is expected to be completed by January 1, 1995. From a total of 51,382 buildings requiring inspection, 51,288 have been inspected voluntarily (approximately 99%), with disconnection of 14,758 prohibited sources of infiltration and inflow representing a reduction of approximately 57,000,000 gallons of water per day based upon a one year rain event. Out of the 51,288 buildings inspected

thus far, approximately 25% have been found to have a prohibited source of infiltration or inflow requiring disconnection.

9. In order to determine whether prohibited sources of inflow and infiltration exist, Section 3, Article 2, Chapter 3 of the Code authorizes the Administrator of the Districts and other designated Code Enforcement Officers to enter upon and inspect sewer facilities on private property at a reasonable time and upon reasonable notice to the property owner.

10. Section 5, Article 2, Chapter 2 of the Code further provides that no person shall willfully obstruct or interfere with such Code Enforcement Officers in the performance of their official duties nor shall any person refuse or obstruct their lawful access and entry upon any property for the purpose of inspection of the premises or property for compliance with the provisions of the Code.

11. In the event prohibited sources of inflow and infiltration are found to exist, Section 2, Article 2, Chapter 2 of the Code further prohibits the property owner from refusing to disconnect such sources from the District's sanitary sewer system.

12. Defendants each hold an ownership interest in improved real estate which is subject to the inspection and remediation provisions of the Code. Attached hereto as **Schedule "A"** and incorporated herein by reference is a list of Defendants' properties requiring inspection including address-

es compiled from Johnson County Unified Wastewater Districts records.

13. Despite repeated written requests from Code Enforcement Officers mailed to Defendants to set up a mutually convenient time to inspect Defendants' Sewer Facilities to determine whether prohibited inflow and infiltration sources exist, (the most recent inquiries having been mailed subsequent to February of 1994), Defendants have totally ignored such requests and have refused to allow voluntary access for inspection purposes.

14. Because of the Defendants' refusal to allow voluntary inspections, it has become impossible for the Districts to complete its inspection and remediation duties as required under the Code and the terms of the EPA and KDHE loan and grant agreements for which Plaintiff lacks an adequate remedy at law.

15. Section 3, Article 2, Chapter 3 of the Code authorizes the Administrator to seek lawful Orders to compel access whenever such access is denied, and Section 10, Article 2, Chapter 3 of the Code further authorizes the commencement of civil proceedings within the District Court of Johnson County, Kansas, to obtain an Order of abatement, mandatory or prohibitory injunction, or such other relief as may be legally authorized to enforce the intent, purpose and provisions of the Code.

WHEREFORE, the Plaintiff prays for the issuance of an Order compelling Defendants to comply with the provisions of the Johnson County Code of Regulations for Private Infiltration and Inflow, 1992 Edition, including but not limited to the following:

- (a) That Defendants be compelled to allow Code Enforcement Officers reasonable access to their properties during normal business hours for the purpose of conducting inspections of sewer facilities thereon to determine whether prohibited inflow and infiltration sources exist.
- (b) That in the event such prohibited connections are discovered during inspection, that the Defendants be directed to abate such violations and to take such remedial actions as are necessary to bring their property into full compliance with the Code.
- (c) For such further or other relief as the Court may determine just.

Respectfully Submitted,

Roger L. Tarbutton #9730
Assistant County Counselor
Johnson County Square
111 S. Cherry St., Suite 3200
Olathe, KS 66061-3441
(913) 764-8484 Ext. 5385
ATTORNEY FOR THE BOARD OF COUNTY
COMMISSIONERS OF JOHNSON COUNTY,
KANSAS

VERIFICATION

STATE OF KANSAS)
) SS:
COUNTY OF JOHNSON)

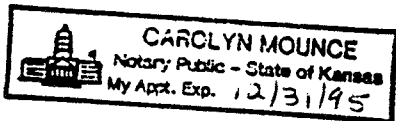
Douglas L. Smith of lawful age, being first duly sworn on oath, states that he is the Administrator of the Johnson County Unified Wastewater Districts; that he has authority to make this verification on behalf of the Johnson County Unified Wastewater Districts; that he has read the foregoing Petition, knows the contents thereof and that the statements and allegations contained therein are true and correct.

Douglas L. Smith
Douglas L. Smith, Administrator,
Johnson County Unified
Wastewater Districts

Subscribed and sworn to before me this 28 day of February, 1994.

*July CAM
11/28/94*

Carolyn Mounce
Notary Public



April 8, 1998

Property Owner
123 Main Street
Any Town, USA 12345

Re: Disconnection of Infiltration/Inflow (I/I) Source (Storm or Groundwater entering the Sanitary Sewer) at 123 Main Street

Dear Property Owner:

Over the last several years, many neighborhoods have experienced basement flooding during wet weather periods from sanitary sewer backups. These backups are the result of excess water flowing into the sanitary sewers primarily from connections on private property.

Inspections and testing by the Wastewater Districts and consultants have determined that your home has a connection that allows surface water or ground water to flow into the sewers (typically foundation drain sump pits, sump pumps, or outside area drains).

Although you may never have experienced wet weather sewer backups, the connection(s) in or outside of your home contribute to problems for your neighbors downstream.

Currently, the Wastewater Districts are rehabilitating the existing collection system of pipes and manholes and requiring disconnection and re-routing of any source on private property that contributes excess flow to the sanitary sewer system. Although some homes may have been constructed prior to ordinances being passed prohibiting these sources, their disconnection is a vital part of this sewer rehabilitation project. In the five years since this project was initiated, over 15,600 sources have been eliminated.

The Board of County Commissioners adopted Resolution No. W.D. 85-96, which prohibits these connections, but provides funds to disconnect and re-route them. The costs of repairs or modifications to comply with the resolution will be included in the overall cost of the rehabilitation project.

The following source(s) on your property require re-routing or modification:

Storm Sump Pump

Estimates for rerouting or modifying the I/I connection(s) above should be submitted to the Districts by **May 7, 1998**. The work to reroute or modify should be completed by **June 8, 1998**.

1. If you wish to have a contractor perform the required work, please obtain estimates from any two (2) reputable contractors of your choice (note that two (2) estimates are required). **These estimates must be submitted to the Wastewater Districts for review before any work is performed.**
2. If you wish to perform the work yourself, reimbursement will be made for materials only.

Request to Re-Route Infiltration/Inflow Source
April 8, 1998
Page Two

3. The disconnection must be performed according to Districts' standards and all applicable building codes to qualify for funding.
4. If the building owner wishes to select the contractor, and the preferred contractor's bid is greater than the lowest bid, the building owner shall be responsible for the difference in cost.
5. At the owner's option, the contractor may be paid directly by the Districts after inspection and documentation of work performed.
6. If the disconnection work requires approval from the City Building Code Authority, indication of City approval of the completed work will be needed prior to payment.
7. Acceptance of payment will include the consent of the building owner to future re-inspections.

If you have any questions, please contact the Districts I/I Inspectors by dialing 681-3200, and entering extension 2172.

Cordially,

Douglas L. Smith
Wastewater Administrator

DLS/ksw
7393P697

Attachments

cc: Ron Thomann, I/I Planning Coordinator
Jim Doleshal, I/I Senior Inspector

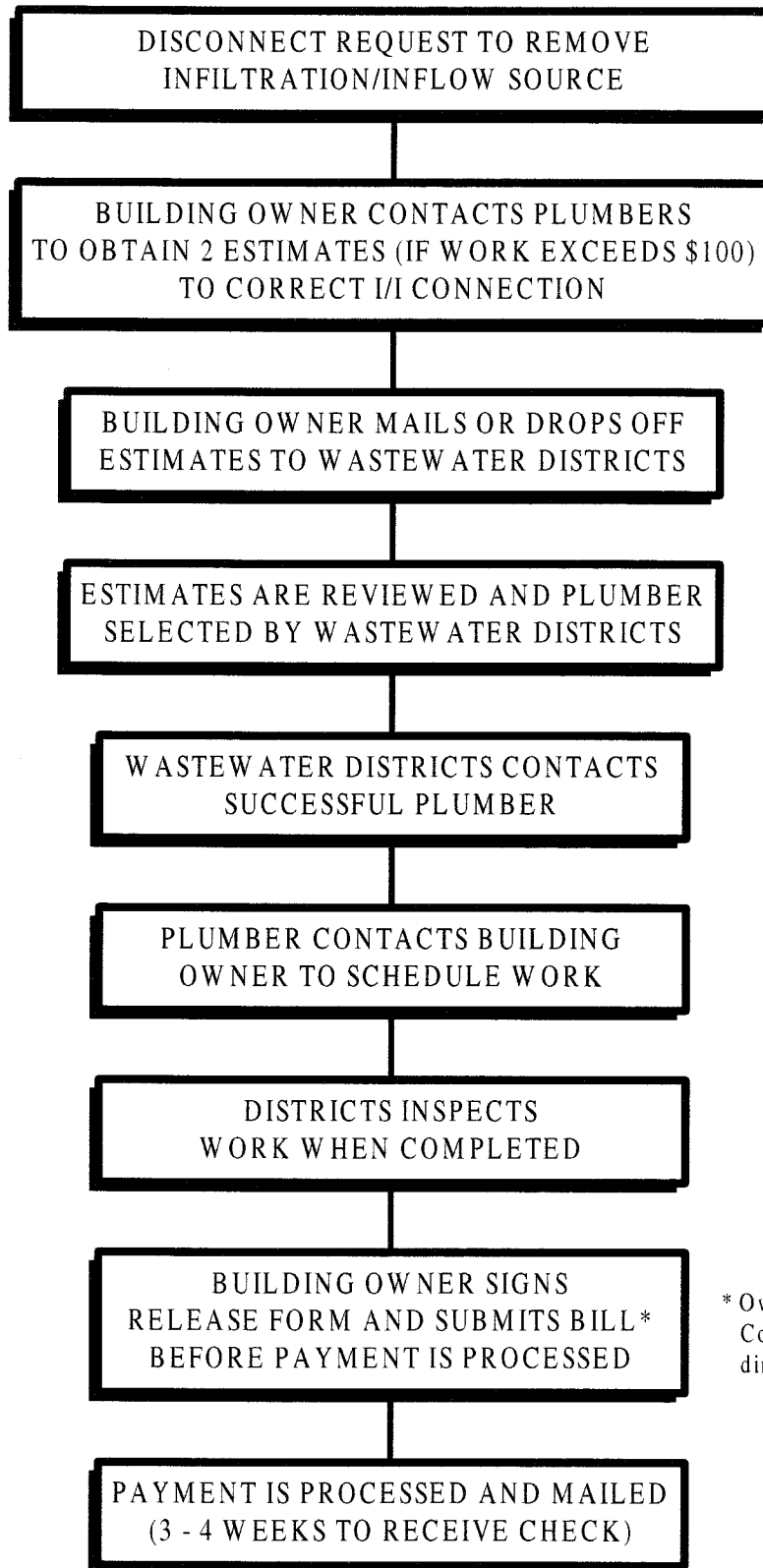
JOHNSON COUNTY UNIFIED WASTEWATER DISTRICTS

Infiltration and Inflow Sources Disconnection Appeal Procedures

1. Within 60 days after receipt of the Disconnect Request Letter, the property owner may request, in writing, a review hearing before the Johnson County Unified Wastewater Districts' Administrator. All disconnection appeals shall be sent to the Wastewater Administrator, 7311 West 130th Street, Suite 100, Overland Park, Kansas 66213.
2. If the property owner is not satisfied with the decision of the Johnson County Unified Wastewater Districts' Administrator, the appeal process will be continued by the Johnson County Unified Wastewater Districts' Administrator by referring it to the Board of County Commissioners, via the County Administrator.

RDT:ksw
7397232

STEP BY STEP PROCEDURE TO REMOVE INFILTRATION/INFLOW SOURCE



* Owner may elect to have Contractor submit bill directly to Districts

**JOHNSON COUNTY UNIFIED WASTEWATER DISTRICTS
INFILTRATION/INFLOW REMOVAL PROGRAM
Participating Plumbing Contractors**

1.	D & D Plumbing	331-6032
2.	Bob Orpin Plumbing	432-2620
3.	B & L Service	381-0660
4.	A & A Service	831-1001
5.	Witter Plumbing	642-2965
6.	Schoeller Plumbing	792-1918
7.	Kurt's Plumbing	469-1422
8.	Bills Plumbing Service	829-8213
9.	K.B. Complete Heating, Cooling & Plumbing	722-6835
10.	Riden Plumbing	432-8495
11.	A.B. May Sales & Service Co.	383-2222
12.	Rainbow Plumbing	236-7619
13.	Joe Brown Plumbing	782-9186
14.	McCormack Heating, Cooling & Plbg., Inc.	888-8322
15.	Heartland Plumbing	829-1057

Feel free to contact any reputable plumber/contractor. Advise the plumber/contractor, if they are not on this list, to contact Jim Doleshal at 681-3200 for details concerning this program, and minimum standards.

Plumbers2.xls

May 8, 1998

Property Owner
123 Main Street
Any Town, USA 12345

Re: Disconnection of Infiltration/Inflow (I/I) source at 123 Main Street

Dear Resident:

By certified letter dated April 8, 1998, Johnson County Unified Wastewater Districts advised you of an I/I plumbing connection in your home which allows stormwater or groundwater to enter the sanitary sewer system. To date, the Districts has not received the requested two (2) estimates from you concerning the completion of the necessary work.

This letter is a reminder that the estimates for the work required were to be turned in to the Districts within 30 days from the date of the notice referenced above.

Please be advised that failure to correct this I/I connection is a violation of County Resolution No. W.D. 92-22 (originally enacted as W.D. 85-96).

Sanitary sewer backups during wet weather periods are of concern to all Johnson County residents. Your cooperation is requested to ensure the completion of this project in a timely manner.

If you have any questions, or if you are having problems obtaining estimates, please contact the Districts at 681-3200, extension 2172.

Sincerely,



Ron Thomann
Planning Coordinator
Infiltration/Inflow Removal

cc: Douglas L. Smith, Director of Development Services
Roger Tarbutton, Assistant County Counselor

June 9, 1998

Property Owner
123 Main Street
Any Town, USA 12345

Re: Disconnection of Infiltration/Inflow (I/I) source at 123 Main Street

Dear Property Owner:

By certified letter dated April 8, 1998, Johnson County Unified Wastewater Districts advised you of an I/I plumbing connection in your home which allows stormwater or groundwater to enter the sanitary sewer system.

Subsequently, another letter was mailed to you on May 8, 1998, reminding you that the Districts had not received the required two (2) estimates for disconnecting this source. This work was to be completed by June 8, 1998

Please contact the Wastewater Districts at 681-3200, extension 2172, within seven (7) days from the date of this letter regarding this matter. If you fail to contact the Wastewater Districts within seven (7) days, this matter will be turned over to the Johnson County Legal Department for enforcement.

Failure to correct this I/I connection is a violation of County Resolution No. W.D. 92-22 (originally enacted as W.D. 85-96) and the Districts may:

1. Issue a Notice to Appear in the Codes Enforcement Division of the District Court for Johnson County, Kansas, for "Failure to Comply with an Administrative Order" (Chapter 3 Article I, Section No. 2).
2. Commence civil legal proceedings, within the District Court for Johnson County, Kansas, for an order of abatement, mandatory or prohibitory injunction, or such other relief as may be legally authorized to enforce the intent, purpose and provisions of this code (Chapter 3, Article 2, Section No. 10).

The District trusts that these actions will not be necessary. Please contact me if you have any questions.

Sincerely,



Ron Thomann
Planning Coordinator
Infiltration/Inflow Removal

cc: Douglas L. Smith, Director of Development Services
Richard Lind, Assistant County Counselor

April 8, 1998

Property Owner
123 Main Street
Any Town, USA 12345

Re: Disconnection of Inflow Source at 123 Main Street
(Storm or Ground water entering the Sanitary Sewer)

Dear Property Owner:

Currently, the Wastewater Districts are rehabilitating the existing collection system of pipes and manholes, and requiring disconnection and re-routing of any source on private property that contributes excess flow to the sanitary sewer system. This excess flow causes sewer backups during wet weather periods. Although you may never have experienced wet weather sewer backups, connections in or outside of your home contribute to problems for your neighbors downstream.

Although some homes may have been constructed prior to ordinances being passed prohibiting these sources, their disconnection is a vital part of this sewer rehabilitation project.

Inspections and testing by the Wastewater Districts and Consultants have determined that your home has a connection that allows surface water or ground water to flow into the sewers (typically foundation drain pits, sump pumps, or outside area drains). In the twelve years since this project was initiated, over 15,600 sources have been eliminated.

The Board of County Commissioners adopted Resolution No. W.D. 92-22 (originally enacted as W.D. 85-96) which prohibits these connections, but provides funds to disconnect and re-route them. The costs of repairs or modifications to comply with the resolution will be included in the overall cost of the rehabilitation project.

The following source(s) on your property require modification:

Foundation Drain Sump Pit

Several options are available to you for performing the work:

1. **The work may be performed by a pre-approved contractor. Simply contact the Districts at 681-3200, extension 2172.** If you select this option, payment will be made directly to the contractor. Please contact the Districts by May 8, 1998, to make the necessary arrangements.
2. If you do not wish to use a pre-approved contractor, you may obtain estimates from any two (2) reputable contractors of your choice. **A list of experienced contractors is available from the Districts on request.** These estimates must be submitted to the Wastewater Districts by May 8, 1998, and reviewed before any work is performed. All required work should be completed by June 8, 1998. **NOTE: if you choose this method, two (2) estimates are required.**

Request to Re-Route Infiltration/Inflow Source

April 8, 1998

Page Two

3. If you wish to perform the work yourself, reimbursement will be for materials only.

Other Information:

1. The disconnection must be performed according to Districts' standards and all applicable building codes to qualify for funding.
2. If the building owner wishes to select the contractor, and the preferred contractor's bid is greater than the lowest bid, the building owner shall be responsible for the difference in cost.
3. At the owner's option, the contractor may be paid directly by the Districts after inspection and documentation of work performed.
4. If the disconnection work requires approval from the City Building Code authority, indication that a City permit was obtained will be needed prior to payment.
5. Acceptance of payment will include the consent of the building owner to future re-inspections.

Appeal procedures are attached.

If you have any questions, please contact the Districts' I/I Inspectors by dialing 681-3200, and entering extension 2172.

Sincerely,

Douglas L. Smith
Wastewater Administrator

DLS/ksw
7393P698

Attachments

cc: Ron Thomann, I/I Planning Coordinator
Jim Doleshal, I/I Senior Inspector



Dear Property Owner,

As requested, the disconnection of the Infiltration / Inflow source at the property listed below has been awarded to a Wastewater Districts pre-approved contractor. The successful contractor and their phone number are also listed below.

The contractor will be contacting you in the near future to schedule the required work. If you have any questions, you may contact the Districts at ~~631-3300~~ extension ~~3173~~.

May 8, 1998

Property Owner
123 Main Street
Any Town, USA 12345

Re: Disconnection of Infiltration/Inflow (I/I) source at 123 Main Street

Dear Resident:

By certified letter dated April 8, 1998, Johnson County Wastewater Districts advised you of an I/I plumbing connection in your home which allows stormwater or groundwater to enter the sanitary sewer system. To date, the Districts has had no contact from you concerning the completion of the necessary work.

This letter is a reminder that the work required is to be completed within 90 days from the date of the notice referenced above. Please be advised that failure to correct this I/I connection is a violation of County Resolution No. W.D. 92-22 (originally enacted as W.D. 85-96).

Sanitary sewer backups during wet weather periods are of concern to all Johnson County residents. Your cooperation is essential to ensure the completion of this project in a timely manner.

If you have any questions, or if you wish to have the work completed by a pre-approved contractor please contact the Districts at 681-3200, extension 2172.

Sincerely,



Ron Thomann
Planning Coordinator
Infiltration/Inflow Removal

cc: Douglas L. Smith, Director of Development Services
Roger Tarbutton, Assistant County Counselor

PLEASE RETURN THIS CARD WITHIN 15 DAYS

INDICATE THE TIME AND DATE FOR THE INSPECTION
AT YOUR CONVENIENCE.

PLEASE SCHEDULE APPOINTMENT AT LEAST
TEN (10) WORKING DAYS FROM MAILING DATE

TIME _____
DATE _____ (MON - FRI)
NAME _____
STREET ADDRESS _____
CITY _____
PHONE NUMBER _____

May 27, 1998

Property Owner
123 Main Street
Any Town, USA 12345

Re: Access to Building for Reinspection of Disconnected Infiltration/Inflow Source at 123 Main Street

Dear Property Owner:

By letter dated April 10, 1998, Johnson County Unified Wastewater Districts requested that you contact this office to arrange for a reinspection of your Disconnected Infiltration / Inflow Source under the Districts Infiltration/Inflow Removal Program; however, no response was received.

Subsequently, another letter was mailed to you on May 11, 1998, requesting that you contact the Districts office within fifteen (15) days to arrange for reinspection; again, no response was received.

To schedule an appointment for a reinspection, you may contact the Districts at 681-3200, Extension 2172 during regular business hours. **If you fail to contact this office within 15 days, the Districts will regard this as denying access to the premises, which will precipitate further action.**

Pursuant to County Resolution No. W.D. 92-22 the Districts may select one of the following remedies:

1. Seek a lawful order or search warrant to compel access whenever access is denied (Chapter 3, Article 2, Section No. 3).
2. Commence civil legal proceedings, within the District Court for Johnson County, Kansas, for an order of abatement, mandatory or prohibitory injunction, or such other relief as may be legally authorized to enforce the intent, purpose and provisions of this code (Chapter 3, Article 2, Section No. 10).

To prevent further action, please contact the Districts at 681-3200, Extension 2172.

Sincerely,



Ron Thomann
Planning Coordinator
Infiltration/Inflow Removal

Reinsp3.doc

cc: Douglas L. Smith, Wastewater Administrator
John A. Metzler, Chief Engineer
Roger Tarbutton, Assistant County Counselor

MINIMUM STANDARDS
FOR I/I SOURCE DISCONNECTIONS

**JOHNSON COUNTY UNIFIED WASTEWATER DISTRICTS
PRIVATE INFILTRATION/INFLOW REMOVAL SPECIFICATIONS**

INTRODUCTION:

The purpose of the Johnson County Unified Wastewater Districts' Private Infiltration/Inflow (I/I) Removal Program is to identify and disconnect sources of ground water entering the sanitary sewer system from private property. The excess groundwater may cause the sanitary sewers to become overloaded, resulting in basement flooding and possible bypasses of untreated sewage into streams.

An I/I sewer connection is one which allows ground surface run-off from rain, melting snow, and clear ground water to enter the sanitary sewer system. The Board of County Commissioners adopted Resolution No. W.D. 92-22 (originally entered as W.D. 85-96) which prohibits these connections, but provides funds to disconnect and re-route them. The costs of repairs or modifications to comply with the resolution will be included in the overall cost of the rehabilitation project.

LEGAL AUTHORITY:

Resolution No. W.D. 92-22 (originally enacted as W.D. 85-96) adopted by the Board of County Commissioners of Johnson County, Kansas.

TYPES OF I/I CONNECTIONS:

Groundwater from any of the following sources which discharge directly to the sanitary sewer constitutes an I/I connection:

1. Foundation drain sump pits, sump pumps.
2. Combination drain sump pit, sump pump (sanitary and storm).
3. Outside area drains, i.e. driveway, basement entry, window wells, patio.
4. Downspouts.
5. Service line cleanouts.

INSPECTIONS:

In order to verify that an I/I source has been properly disconnected, it is necessary that all modifications be inspected by an authorized Johnson County Unified Wastewater Districts' employee.

The attached information is intended to give some typical examples of stormwater inflow into the sanitary sewer system and suggested methods of permanently removing these sources from the sanitary sewer system.

The Johnson County Unified Wastewater Districts does not endorse any particular product or manufacture, but will require materials and construction methods to be equivalent to or exceed those examples enclosed.

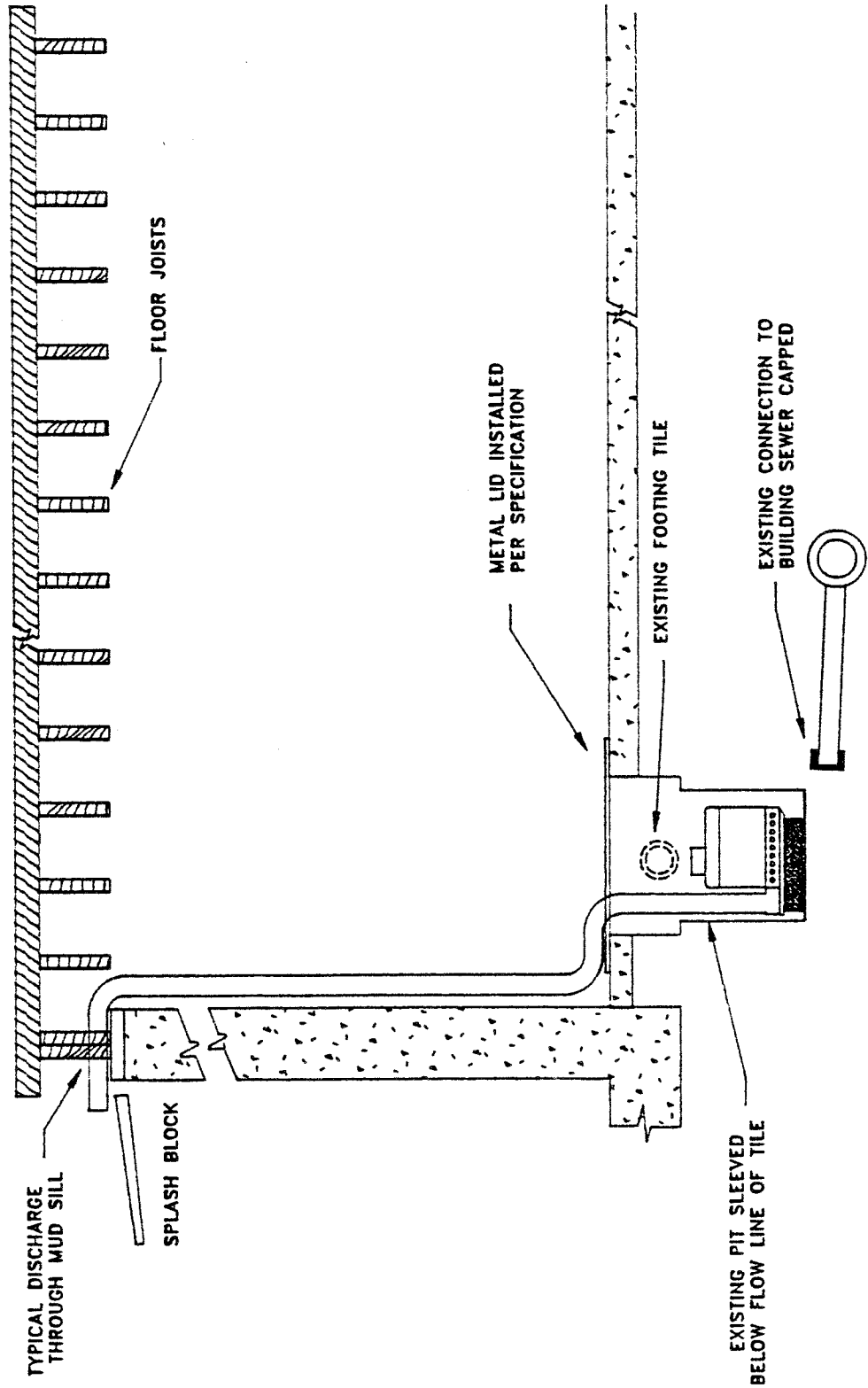
Prepared by Ron Thomann

FOUNDATION DRAIN SUMP PITS (Sleeve Existing Pit)

1. Remove existing pit drain casting and seal sanitary line with watertight cap. Fernco QC Series cap or equivalent to be used.
2. Line existing pit with minimum 15" diameter PVC sleeve to sufficient depth so that pump ON level will be a minimum of 2" below flow line of footing tiles. Sleeve bottom to remain unsealed. A layer of approximately 2" of 3/8" to 1/2" crushed rock to be placed in bottom of sleeve.
3. Furnish and install patio block or other suitable base in bottom of pit sleeve to support pump.
4. Furnish and install automatic submersible pump rated at minimum 2,000 GPH @ 10' TDH. Pump to be Zollar Model M-53, Wayne Model SSF33, Blue Angel BSF33, Stevens Model SS35 or approved equivalent. (Note: pump data to be submitted with estimate).
5. Furnish and install a swing type check valve in discharge line. Check valve to be installed below lid.
6. Furnish and install required discharge piping. Discharge piping to be minimum 1-1/2" I.D. PVC or ABS. Material used must conform to local codes.
7. Furnish and install metal cover for pit, minimum thickness .1875" (3/16") (No wooden covers). All covers must be painted or prime coated to prevent rust. (Note: covers to be constructed according to attached drawings.)
8. Secure discharge pipe with approved clamps (no strapping or suspended type pipe hangers). Clamps to be spaced a maximum 36" apart.
9. Furnish and install insulation to deaden sound between discharge pipe and floor joist where secured by a clamp.
10. Furnish and install dedicated electrical circuit with ground fault receptacle.
11. Furnish and install conduit for electrical wire from top of foundation to outlet box (for exposed installations).
12. Terminate discharge on splashblock. (Concrete, Fiberglass, or polystyrene may be used).
13. Remove all debris created from work, and cleanup work site.
14. Provide a minimum 1-year written warranty on all parts and labor.

Contractor shall be responsible for obtaining all permits required, cost of permits to be included in estimate. No additional payment will be made for permits.

TYPICAL FOUNDATION DRAIN SUMP PIT MODIFICATION (sleeve existing pit)

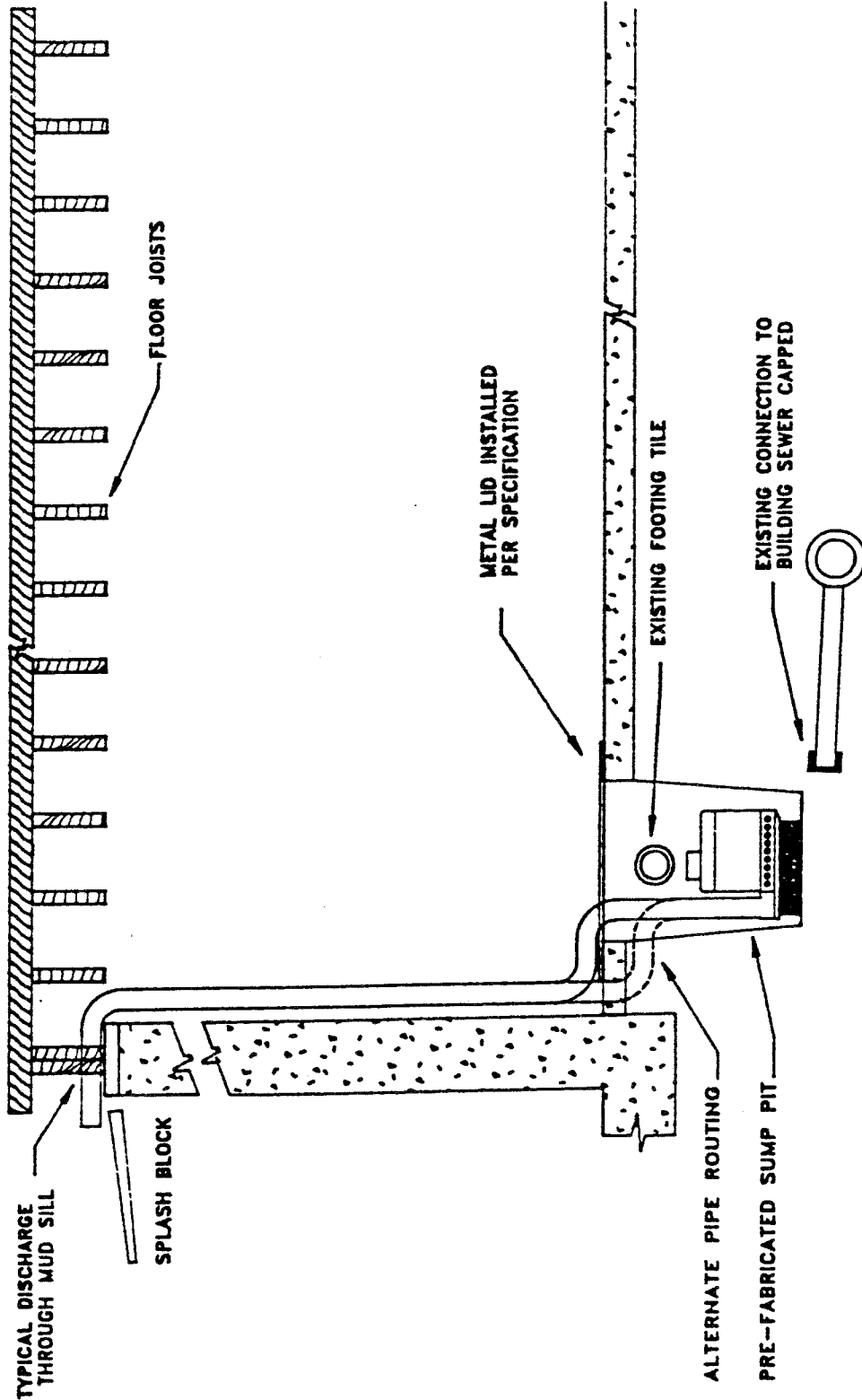


FOUNDATION DRAIN SUMP PITS (Replace Existing Pit)

1. Break-up floor surrounding pit to an approximate 24" x 24" area (measured from center of pit). Remove existing pit drain casting and seal sanitary line with watertight cap. Fernco QC Series cap or equivalent to be used.
2. Furnish and Install an 18" diameter x 22" deep pre-fabricated sump pit to replace existing. Pit to be a Jackel SF 22H or approved equivalent. Provide a minimum 3" of new concrete surrounding pit. Bottom and sides of pit to be perforated uniformly to a point approximately 8" from the pit bottom (optionally, footing tiles may be extended into new pit, however, perforations as described above are still required).
3. Furnish and install patio block or other suitable base in bottom of pit to support pump.
4. Furnish and install automatic submersible pump rated at minimum 2,000 GPH @ 10' TDH. Pump to be Zollar Model M-53, Wayne Model SSF33, Blue Angel BSF33, Stevens Model SS35 or approved equivalent. (Note: pump data to be submitted with estimate).
5. Furnish and install a swing type check valve in discharge line. Check valve to be installed below lid.
6. Furnish and install required discharge piping. Discharge piping to be minimum 1-1/2" I.D. PVC or ABS. Pipe routing may be either through lid or through pit side as shown on drawing. Material used must conform to local codes.
7. Furnish and install metal cover for pit, minimum thickness .1875" (3/16") (No wooden covers). All covers must be painted or prime coated to prevent rust. (Note: covers to be flush fitting with pit used.)
8. Secure discharge pipe with approved clamps (no strapping or suspended type pipe hangers). Clamps to be spaced a maximum 36" apart.
9. Furnish and install insulation to deaden sound between discharge pipe and floor joist where secured by a clamp.
10. Furnish and install dedicated electrical circuit with ground fault receptacle.
11. Furnish and install conduit for electrical wire from top of foundation to outlet box (for exposed installations).
12. Terminate discharge on splashblock. (Concrete, Fiberglass, or polystyrene may be used).
13. Remove all debris created from work, and cleanup work site.
14. Provide a minimum 1-year written warranty on all parts and labor.

Contractor shall be responsible for obtaining all permits required, cost of permits to be included in estimate. No additional payment will be made for permits.

TYPICAL FOUNDATION DRAIN SUMP PIT MODIFICATION (REPLACE EXISTING PIT)



EXISTING SUMP PUMP DISCHARGING TO SANITARY SEWER

1. Properly cap existing sump pump discharge line at point of connection to the sanitary sewer.
2. Existing sump basin must be a minimum of 15" diameter and 22" in depth or enlarged to meet pump manufacturers specifications.
3. Furnish and install patio block or other suitable base in bottom of sump basin to support pump.
4. Furnish and install automatic submersible pump rated at minimum 2,000 GPH @ 10' TDH. Pump to be Zollar Model M-53, Wayne Model SSF33, Blue Angel BSF33, Stevens Model SS35 or approved equivalent. (Note: pump data to be submitted with estimate).
5. Furnish and install a swing type check valve in discharge line. Check valve to be installed below lid.
6. Furnish and install required discharge piping. Discharge piping to be minimum 1-1/2" I.D. PVC or ABS. Material used must conform to local codes.
7. Furnish and install metal cover for pit, minimum thickness .1875" (3/16") (No wooden covers). All covers must be painted or prime coated to prevent rust. (Note: covers to be constructed according to attached drawings.)
8. Secure discharge pipe with approved clamps (no strapping or suspended type pipe hangers). Clamps to be spaced a maximum 36" apart.
9. Furnish and install insulation to deaden sound between discharge pipe and floor joist where secured by a clamp.
10. Furnish and install dedicated electrical circuit with ground fault receptacle.
11. Furnish and install conduit for electrical wire from top of foundation to outlet box (for exposed installations).
12. Terminate discharge on splashblock. (Concrete, Fiberglass, or polystyrene may be used).
13. Remove all debris created from work, and cleanup work site.
14. Provide a minimum 1-year written warranty on all parts and labor.

Contractor shall be responsible for obtaining all permits required, cost of permits to be included in estimate. No additional payment will be made for permits.

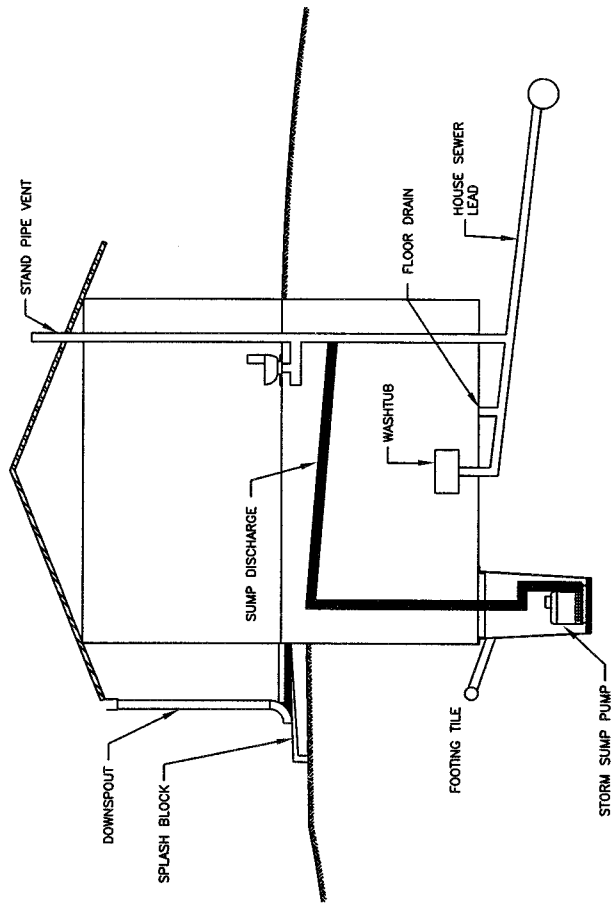
COMBINATION DRAIN SUMP PIT OR SUMP PUMP

1. Separation of the sanitary source(s) and storm water is required. The sanitary source (washing machine, sink drain, etc.) must be connected to the sanitary sewer according to City Plumbing Codes.
2. Storm water sump basin must be a minimum of 15" diameter and 22" in depth or meet pump manufacturers specifications.
3. Furnish and install patio block or other suitable base in bottom of sump basin to support pump.
4. Furnish and install automatic submersible pump rated at minimum 2,000 GPH @ 10' TDH. Pump to be Zollar Model M-53, Wayne Model SSF33, Blue Angel BSF33, Stevens Model SS35 or approved equivalent. (Note: pump data to be submitted with estimate).
5. Furnish and install a swing type check valve in discharge line. Check valve to be installed below lid.
6. Furnish and install required discharge piping. Discharge piping to be minimum 1-1/2" I.D. PVC or ABS. Material used must conform to local codes.
7. Furnish and install metal cover for pit, minimum thickness .1875" (3/16") (No wooden covers). All covers must be painted or prime coated to prevent rust. (Note: covers to be constructed according to attached drawings.)
8. Secure discharge pipe with approved clamps (no strapping or suspended type pipe hangers). Clamps to be spaced a maximum 36" apart.
9. Furnish and install insulation to deaden sound between discharge pipe and floor joist where secured by a clamp.
10. Furnish and install dedicated electrical circuit with ground fault receptacle.
11. Furnish and install conduit for electrical wire from top of foundation to outlet box (for exposed installations).
12. Terminate discharge on splashblock. (Concrete, Fiberglass, or polystyrene may be used).
13. Remove all debris created from work, and cleanup work site.
14. Provide a minimum 1-year written warranty on all parts and labor.

Contractor shall be responsible for obtaining all permits required, cost of permits to be included in estimate. No additional payment will be made for permits.

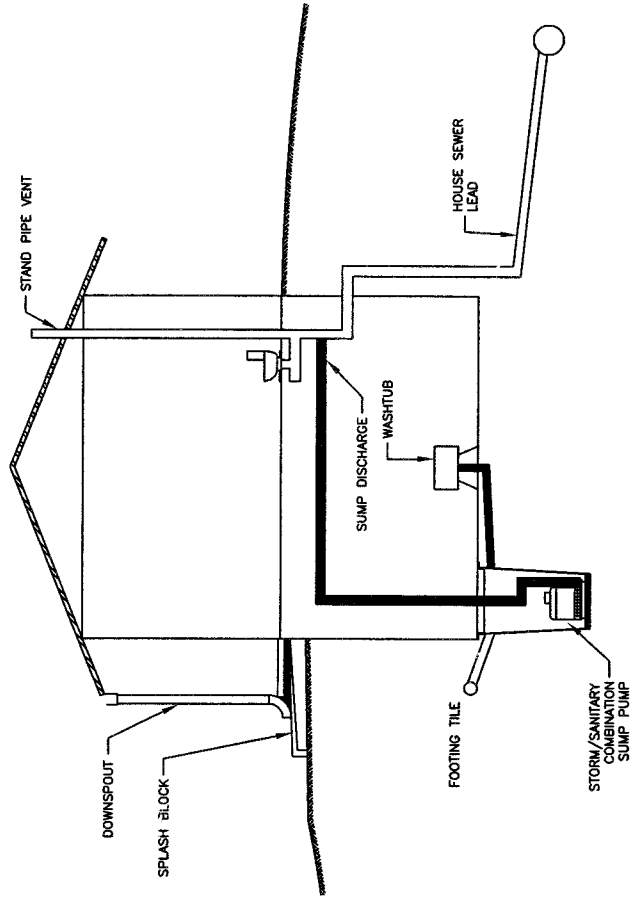
TYPICAL I/I SUMP CONNECTIONS

EXAMPLE A



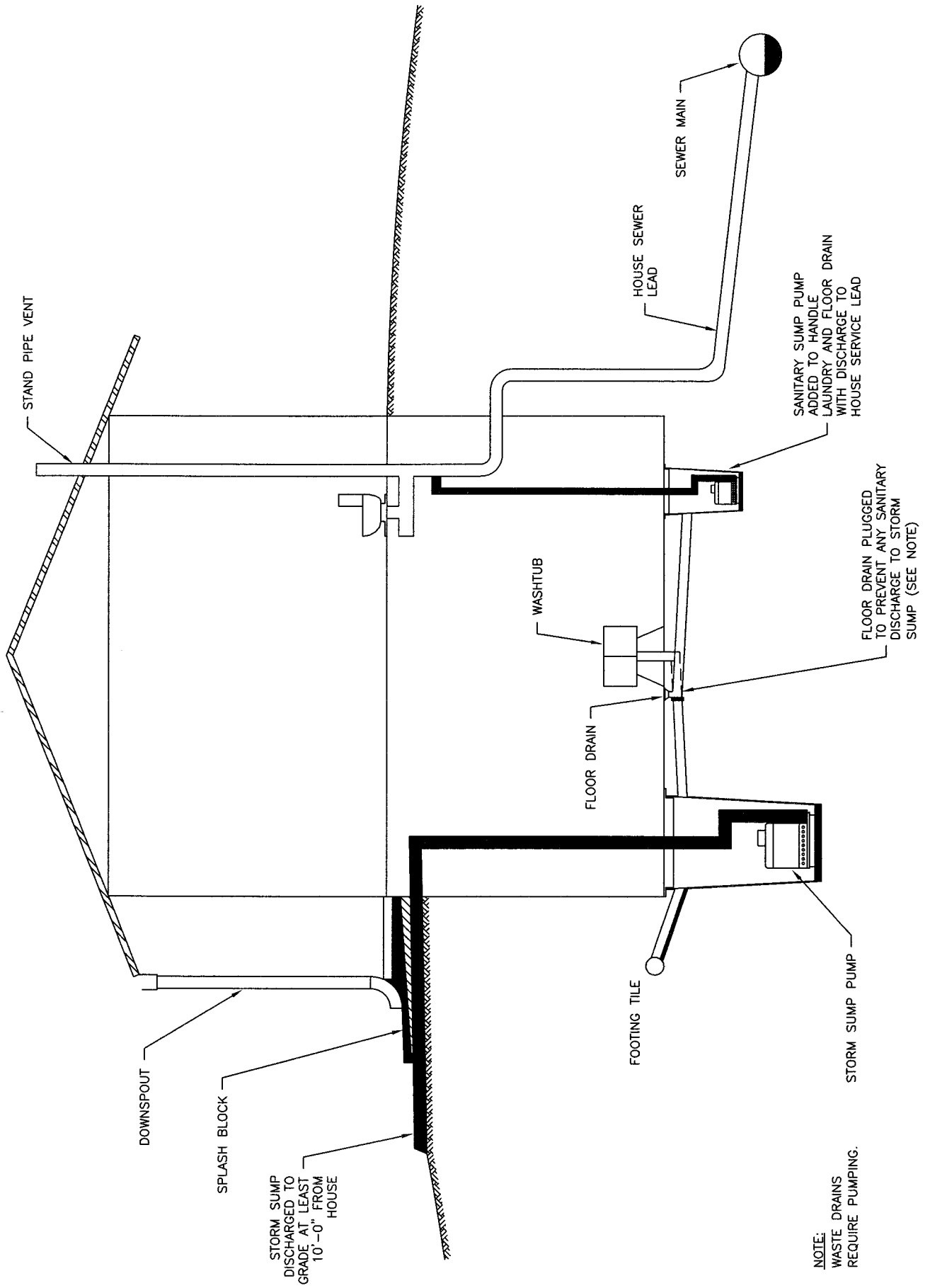
I/I CONNECTION NOT ALLOWED

EXAMPLE B



I/I CONNECTION NOT ALLOWED

TYPICAL SUMP PUMP AND PIPING CORRECTIONS



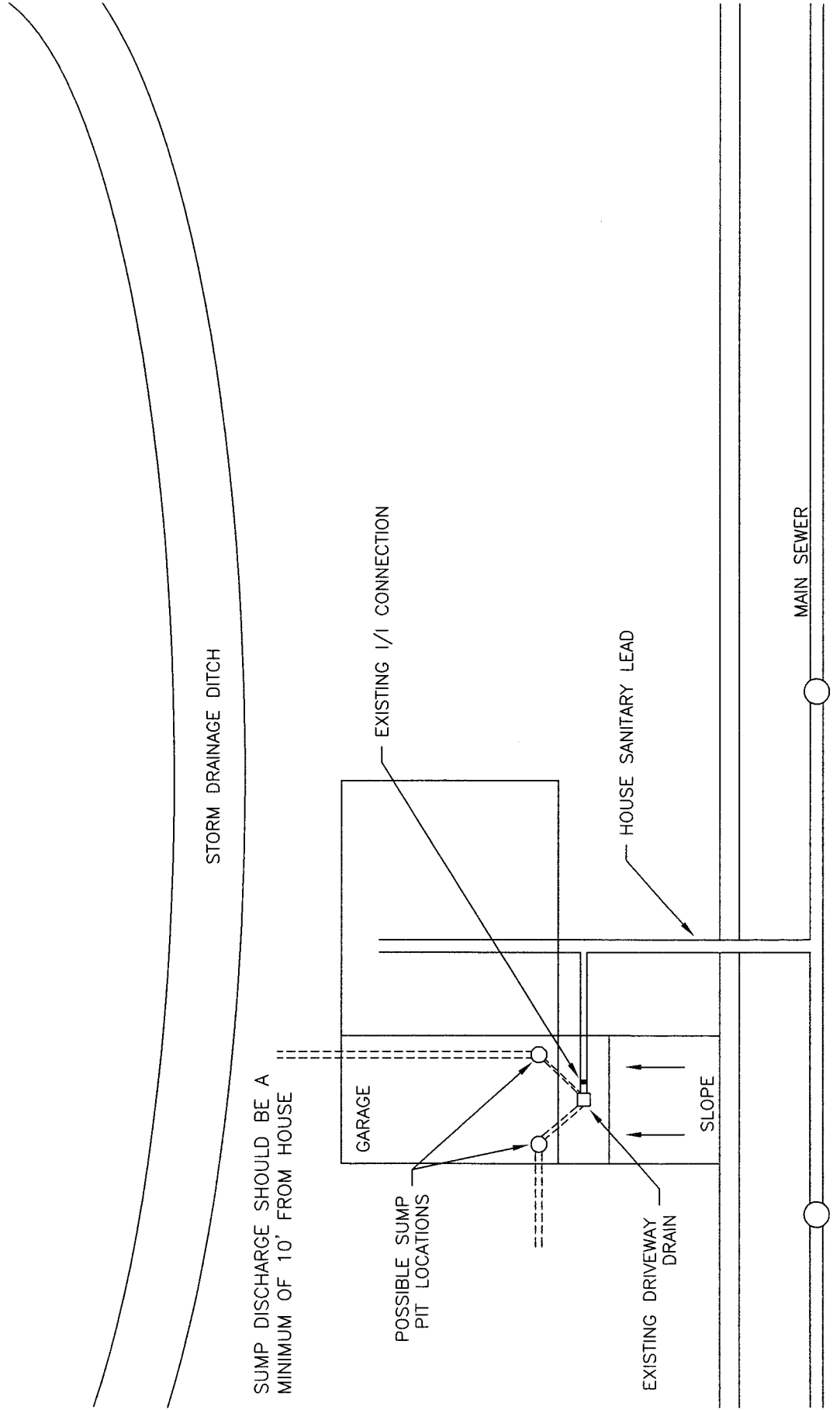
AREA DRAIN

(Ex: Driveway, Patio, Basement entry.)

1. Properly cap existing discharge line connected to the sanitary sewer.
2. Sump basins installed to handle driveways, patios, and outside area drains should be completely sealed and a minimum of 18" diameter and 30" in depth. Inside installations to handle basement entry drains must be sealed and a minimum of 18" diameter and 20" in depth.
3. Furnish and install patio block or other suitable base in bottom of sump basin to support pump.
4. Furnish and install automatic submersible pump rated at minimum 2,000 GPH @ 10' TDH. Pump to be Zollar Model M-53, Wayne Model SSF33, Blue Angel BSF33, Stevens Model SS35 or approved equivalent. Driveway drains will require at minimum 3,000 GPH @ 10' TDH.
5. Furnish and install a swing type check valve in discharge line. Check valve to be installed below lid. Check valve will not be required on outside installations.
6. Furnish and install required discharge piping. Discharge piping to be minimum 1-1/2" I.D. PVC or ABS. Material used must conform to local codes. Driveway drains will require minimum 2" I.D. piping.
7. Furnish and install metal cover for pit, minimum thickness .1875" (3/16") (No wooden covers). All covers must be painted or prime coated to prevent rust. (Note: covers to be constructed according to attached drawings.)
8. Secure discharge pipe with approved clamps (no strapping or suspended type pipe hangers). Clamps to be spaced a maximum 36" apart.
9. Furnish and install insulation to deaden sound between discharge pipe and floor joist where secured by a clamp.
10. Furnish and install dedicated electrical circuit with ground fault receptacle.
11. Furnish and install conduit for electrical wire from top of foundation to outlet box (for exposed installations). Outside installations must be in conduit with weather tight receptacle.
12. Terminate discharge on splashblock. (Concrete, Fiberglass, or polystyrene may be used).
13. Remove all debris created from work, and cleanup work site.
14. Provide a minimum 1-year written warranty on all parts and labor.

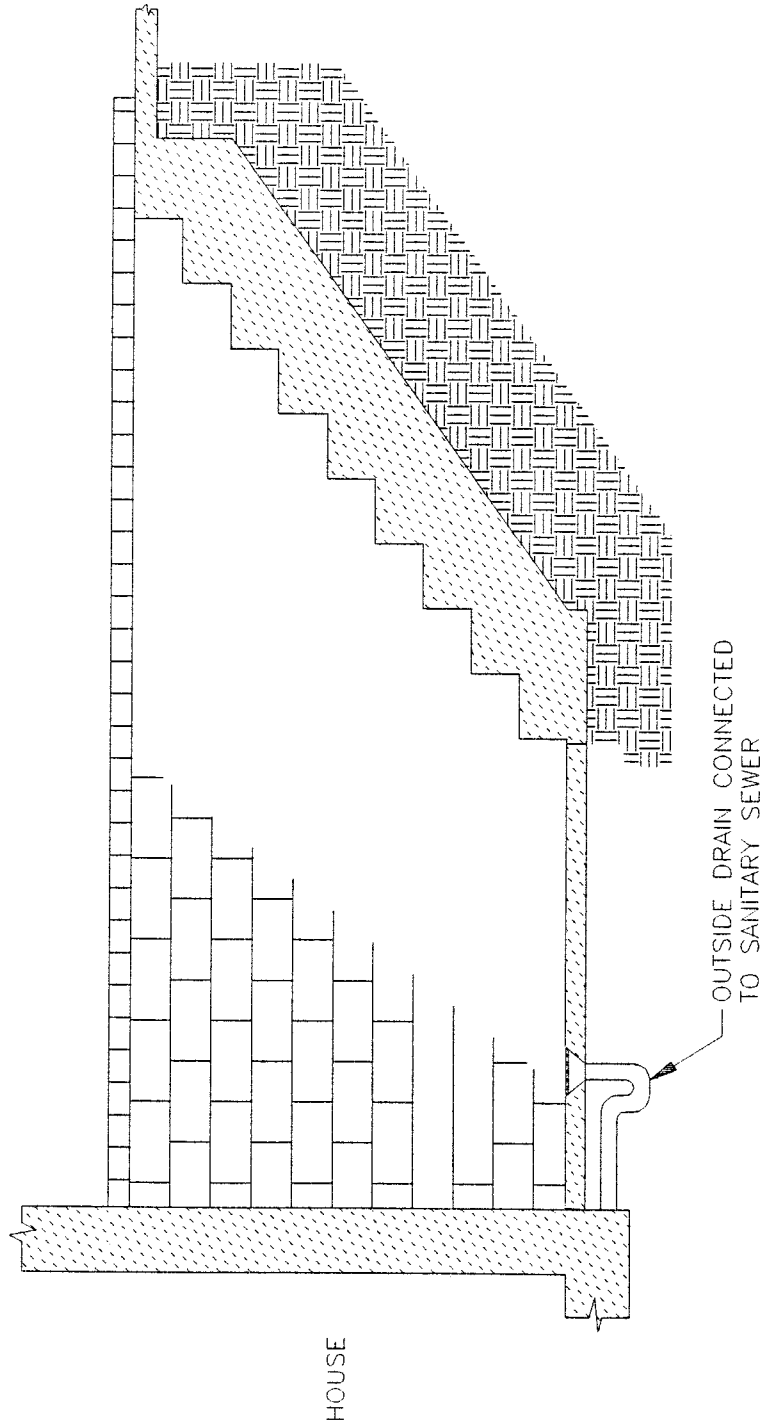
Contractor shall be responsible for obtaining all permits required, cost of permits to be included in estimate. No additional payment will be made for permits.

DRIVEWAY/AREA DRAIN DISCONNECTION

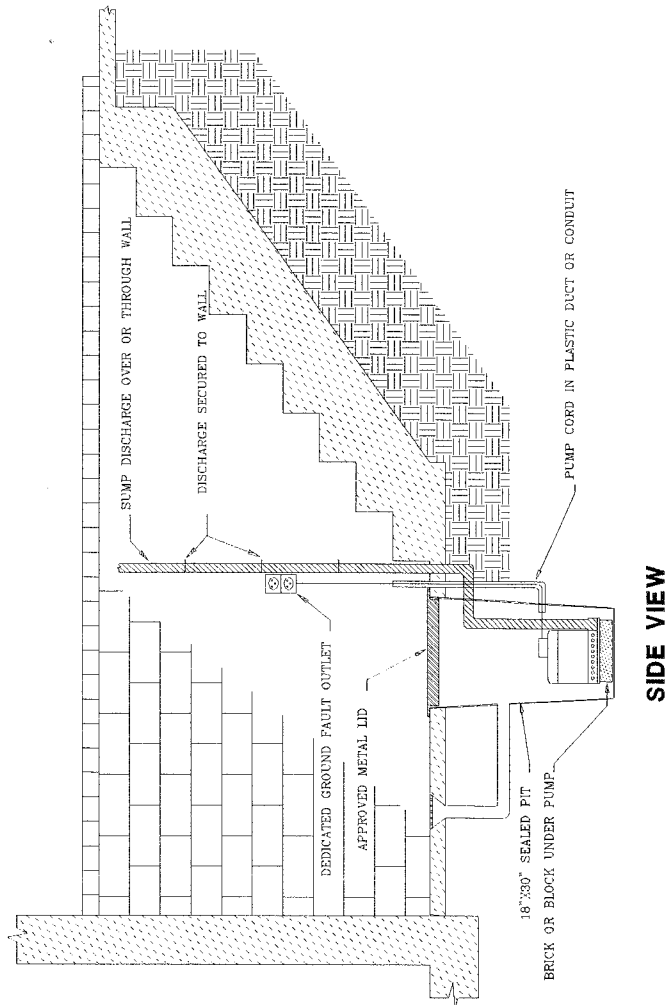
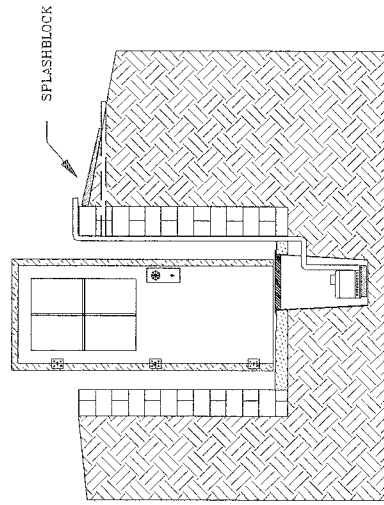


SUMP DISCHARGE SHOULD BE A MINIMUM OF 10' FROM HOUSE

TYPICAL OUTSIDE BASEMENT ENTRY DRAIN



SIDE VIEW



DOWNSPOUTS DISCHARGING TO SANITARY SEWER

Problem

Downspouts which are connected to the sanitary sewer results in extra loading on the sewer system for which it was not designed. This often results in sewer backups in basements throughout the neighborhood during wet weather.

Attached is a plan which shows how the downspout may be constructed and how it may be repaired. Please be aware that plumbing layout may vary from house to house.

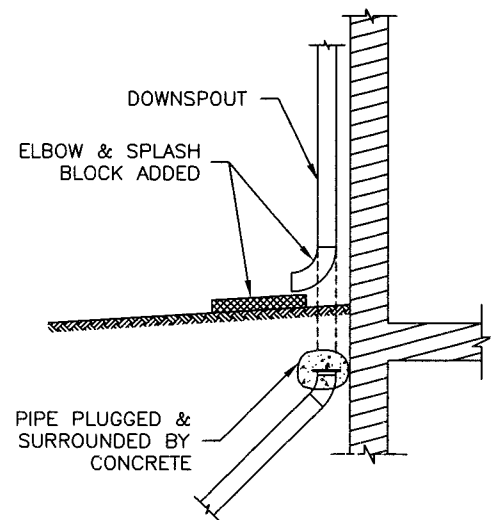
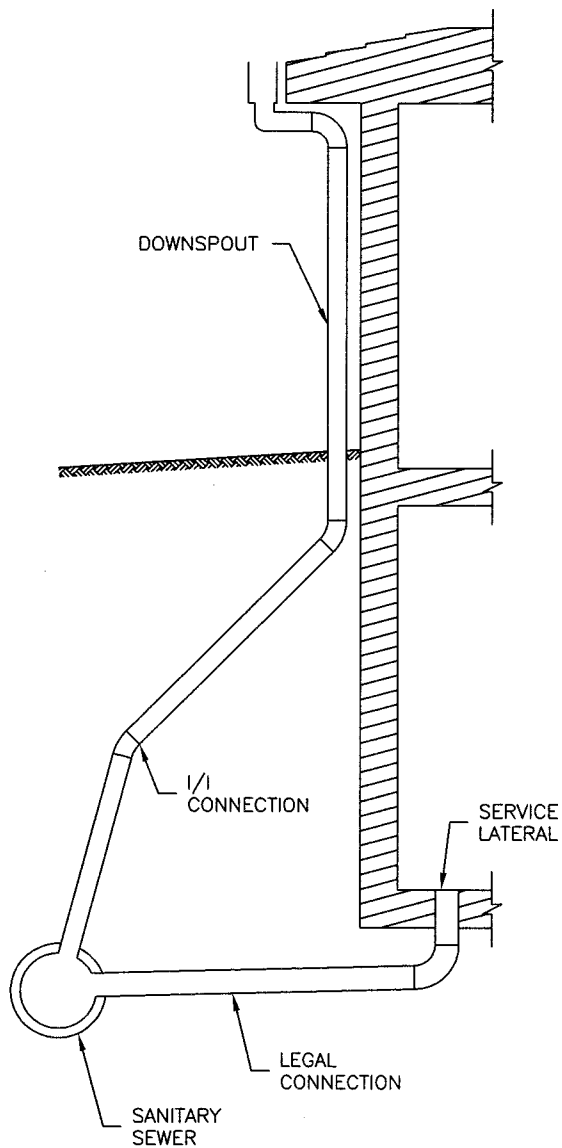
Remedial Work Required

1. If downspouts are directly connected to the sanitary sewer, they must be disconnected.
2. This may be done by cutting off the downspout approximately twelve (12) inches above ground level and ten (10) inches below ground level, install an expandable plug into the bell or barrel of the exposed pipe.
3. Have the Johnson County Unified Wastewater Districts inspect concrete forms and pipe plug prior to pouring concrete.
4.
 - a. Place concrete around and on top of pipe (refer to detail for specifications).
 - b. Place a concrete splash block (three(3) feet or longer) under the downspout. Point the splash block in the direction of the natural drainage. Anchor an elbow onto the downspout and line it up with the splash block.
5.
 - a. Extend the downsout out away from the building (above or under) the ground to a point of drainage.
 - b. Replace dirt so that it slopes from the house (one (1) inch of fall per foot) and place concrete splash block.

Sketches:

Downspout Disconnection Detail.

DOWNSPOUT DISCONNECTION PROCEDURE DETAIL



DEFECTIVE CLEANOUT REPAIRS

Problem

Storm water can enter the sanitary sewer system when cleanouts in the house sanitary lead are left unsealed and below grade, allowing water to pool and flow into the sanitary sewer system.

Solution #1

If the cleanout pipe to grade is sound, a water-tight plug may be installed in the bell or barrel of the pipe (see cleanout repair detail). This seals the cleanout against storm water inflow.

Solution #2

If the cleanout pipe at grade is cracked, broken or deteriorated, it should be exposed to a depth not to exceed three (3) feet, saw cut evenly and an approved coupler attached so the cleanout riser may be brought back to grade. An approved cleanout plug can then be installed in the new riser. New riser materials shall be those materials approved by the Johnson County Unified Wastewater Districts. Top of cleanout plug shall be flush with grade.

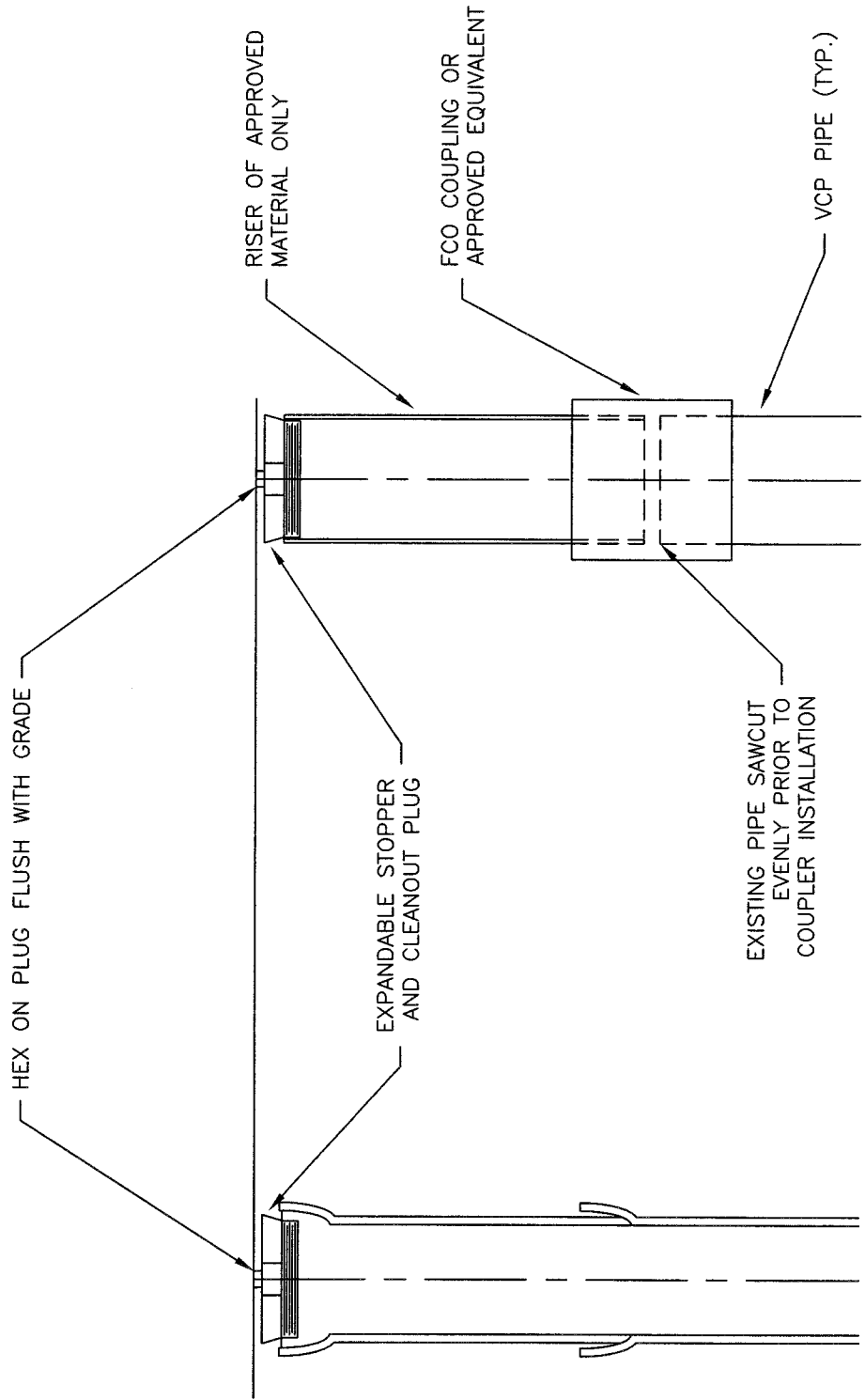
All work performed by other than approved contractors shall be inspected by the Johnson County Unified Wastewater Districts before it is covered. Johnson County Unified Wastewater Districts shall be notified a minimum of 24 hours prior to inspection.

Once the work has been inspected, the excavation shall be backfilled and sloped away from the cleanout to prevent storm water from pooling over the cleanout .

The Contractor shall be responsible for all necessary permits from local governing agencies.

CLEANOUT REPAIR DETAIL

SECTION VIEW



AUXILIARY BACK-UP SYSTEM

Furnish and Install Auxiliary "Back-up" pump to activate automatically in the event of power failure or failure of primary pump. Auxiliary Back-up System may be either battery or water powered meeting the following specifications:

Battery Powered:

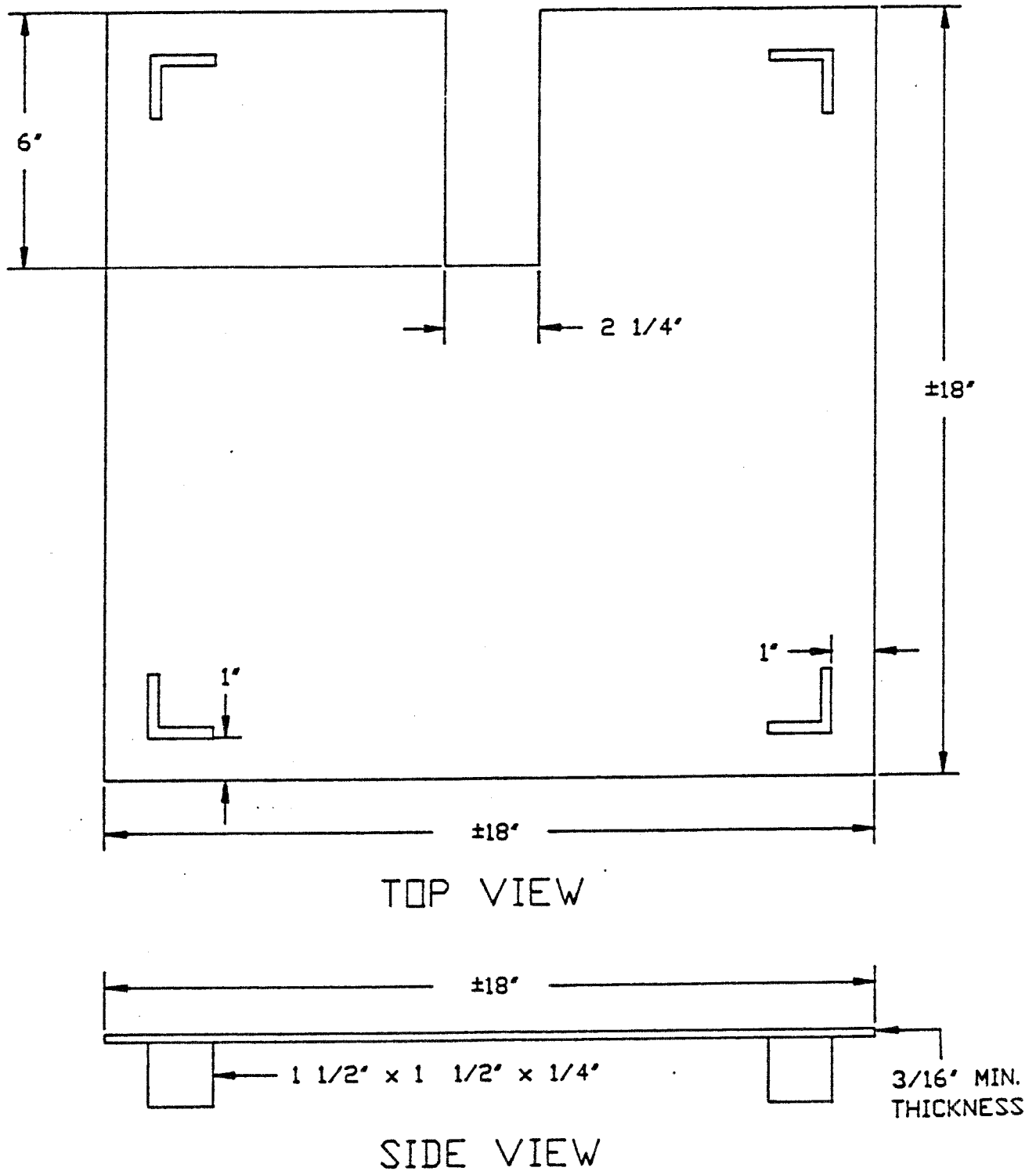
- a. Pump to be a Blue Angel Model BSP12, Wayne Model ESP12, Zollar Model 505, or approved equivalent.
- b. Furnish and install a minimum 105 amp hour deep cycle 12 volt battery.

Water Powered:

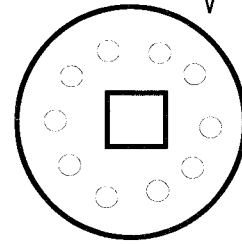
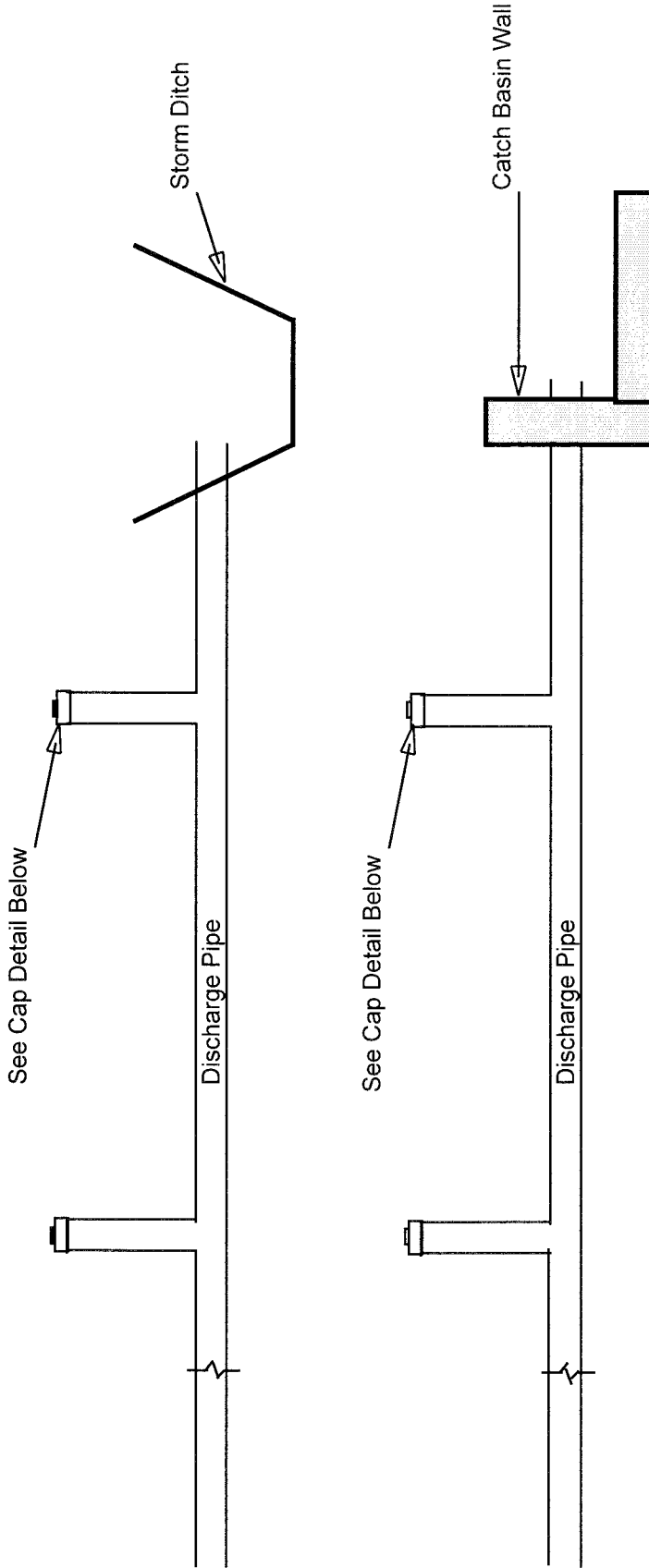
- a. Furnish and install a water powered automatic "back-up" pump. Pump to be a home Gaurd Model 14000 or approved equivalent. All water powered systems must include a dual check backflow preventer installed in the supply line. Valve to be a Watts #7 or approved equivalent. Installation must conform to local codes.

SMPMP.specs

TYPICAL SUMP PIT COVER



Sump Pump Discharge Extension Pressure Relief



Cleanout cap perforated to relieve pressure with check valve closed

NOTE: Pressure relief must be provided for all discharges to storm ditches, storm pipes, and catch basins.

CAP DETAIL

JOHNSON COUNTY UNIFIED WASTEWATER DISTRICTS
INFILTRATION/INFLOW REMOVAL STANDARDS

1. Electrical Specifications

- A. All new sump pump installations will require a dedicated ground fault interrupt circuit (must be specified on bid).
- B. All modifications to existing sump pump installations must be upgraded to comply with No. 1.A. above (must be specified on bid).

2. Outside Sump Pump Installations

- A. All outside pits will be sealed and a minimum of 30" in-depth.
- B. An approved flush fitting metal cover, minimum thickness of 1,875" (3/16") is required on all outside installations. Covers must be approved by the Districts before they are installed.

3. Inside Sumps

- A. Pits located immediately adjacent to doorways or traffic areas will be equipped with an approved metal cover.
- B. Pit style (sealed or unsealed) must be specified on bids.

4. Sump Pump Discharges

- A. All underground discharges will have a tee connection with a riser and cleanout cap installed at or near the exit point from the building (see discharge drawing).
- B. All underground discharges entering storm sewers or storm ditches will be equipped with backflow prevention and a pressure relief system to prevent backups (see discharge drawing).
- C. Sump pump discharge points must comply with local regulations. Check with the appropriate city if there are any questions.
- D. Where no storm drainage is available, i.e. storm pipe, inlet, or ditch, a perforated discharge pipe bedded in gravel and/or terminating in a lateral should be bid if no other alternatives exist.

5. Negative Grade Discharges
 - A. Weep hole size on discharge has been reduced to 1/16".
 - B. Minimum depth has been reduced from 42" to 36" deep.

6. Combination Sumps (Any existing sump pit with a sanitary source discharging to it, including floor drains, laundry, showers, etc.)
 - A. Floor drains discharging to sump pits must be permanently plugged or separate facilities provided to insure that no flow drain will discharge to daylight.

7. Maintenance of Systems
 - A. Homeowners should be provided operating and maintenance manuals for sump pumps, backup systems, etc.
 - B. Homeowners should be instructed that periodic maintenance is required of these systems, i.e. keeping leaves and other solids out of pits, and regularly operating backup systems to insure continuous operation.

8. Bids to Contain the Following
 - A. Point of exit (i.e., NE corner, SW corner, etc.)
 - B. Type of discharge (solid pipe, perforated pipe, etc.)
 - C. Point of discharge (splash block, catch basin, storm pipe, storm ditch, daylight, drywell, etc.)
 - D. Site sketch - a sketch showing exit point of discharge piping, length of discharge and discharge point, electrical routing and any other pertinent information should be submitted on a separate 8 1/2" X 11" sheet.

TESTING PROCEDURES

BASEMENT SUMP TEST PROCEDURES

1. Obtain permission to enter home and inspect.
2. Locate and visually inspect sump installation for any obvious storm-sanitary cross connections (discharge into sanitary pipe, etc.).
3. If cross connection is suspected, mix two (2) dye tablets with water into hand dispensing bottle, or fill bottle with pre-mixed dye.
4. Fill sump with water, or use water standing in sump if possible (try to fill sump with water from homeowner's source if possible to avoid dragging hose into homeowner's house).
5. With sump as full as possible, dispense dye into sump and activate sump pump until all dyed water has been discharged from sump. Continue to pump water into sump for about five minutes; or longer if excessive line length is evident.
6. Shut off water source and allow sump to pump until it shuts down on its own.
7. Note sump type, discharge type, connections and any other pertinent information on building inspection form.
8. Observe downstream manhole for dye (average travel time for dye to travel has been 10 to 12 minutes).
9. Record results on inspection form.
10. Shut down trailer and equipment according to manual procedure.

AREA DRAIN AND BASEMENT ENTRY DRAIN PROCEDURES

1. Obtain homeowners permission or leave explanatory door hanger.
2. Assemble appropriate dispensing equipment.
3. Fill small plastic container with pre-mixed dye (some dye colors stain, use caution and care when near any private property).
4. Follow operations manual procedures for trailer start up and operation.
5. Assemble proper water dispensing equipment and dispense water into suspect source for approximately two to three minutes.
6. Pour dye from dispensing container into suspect source.
7. After dye has been dispensed, continue to dispense water for an additional five minutes.
8. Shut off water dispenser and observe downstream manhole for dye. Average time for dye travel has been 10 or 12 minutes.
9. Shut down trailer and store equipment according to manual procedures.
10. Record results and building data on appropriate form.

DOWN SPOUT TEST PROCEDURE

1. Obtain homeowner's permission or leave door hanger, if not home.
2. Assemble "Bo-Peep" head to dispensing unit if necessary. Best results may be obtained by injecting directly into down spout discharge, if available.
3. Place one fluorescent green* tablet into the dispensing container or dye pot, add water and mix until tablet is dissolved, or use pre-mixed dye in small plastic container if downspout discharge is accessible.
4. Follow operating instructions for dye trailer start up and operation.
5. Dispense water into suspect downspout for 2-3 minutes prior to injecting dye. If water surfaces in yard or at street, discontinue tests, and record findings on inspection form.
6. If dye pot is being used, open needle valve and dispense one full pot of dye into suspect source; or pour dye directly into discharge.
7. When dye pot has emptied itself (about 30 seconds) close valve and continue to dispense water for approximately five (5) minutes. If dispensing container is used, pour dye directly into source and continue to dispense water for approximately five (5) minutes.
8. Shut off water dispenser and observe down stream manhole for dye. Average time for dye travel has been 10 to 12 minutes.
9. If more than one source is to be tested, the line must be thoroughly flushed with clear water or additional dye colors used.
10. Shut down trailer and store equipment according to manual procedures.
11. Record results and building data on appropriate form.

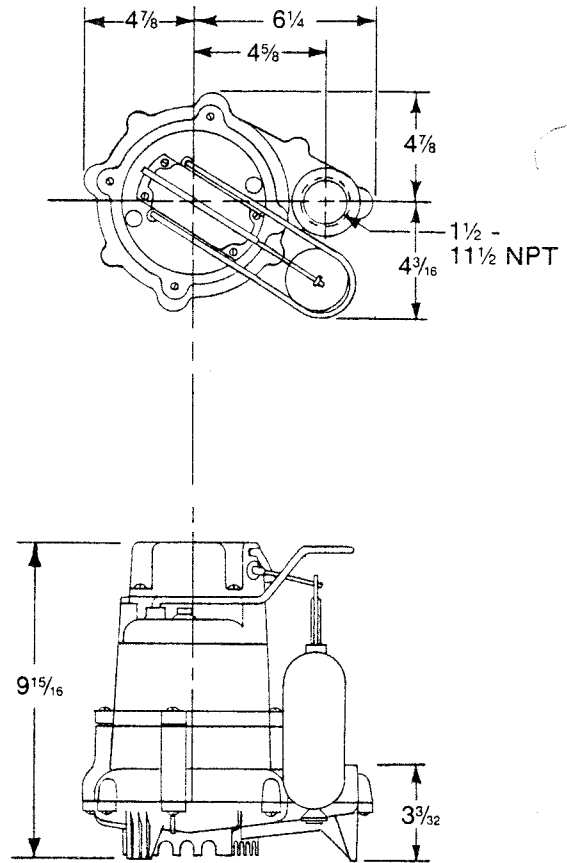
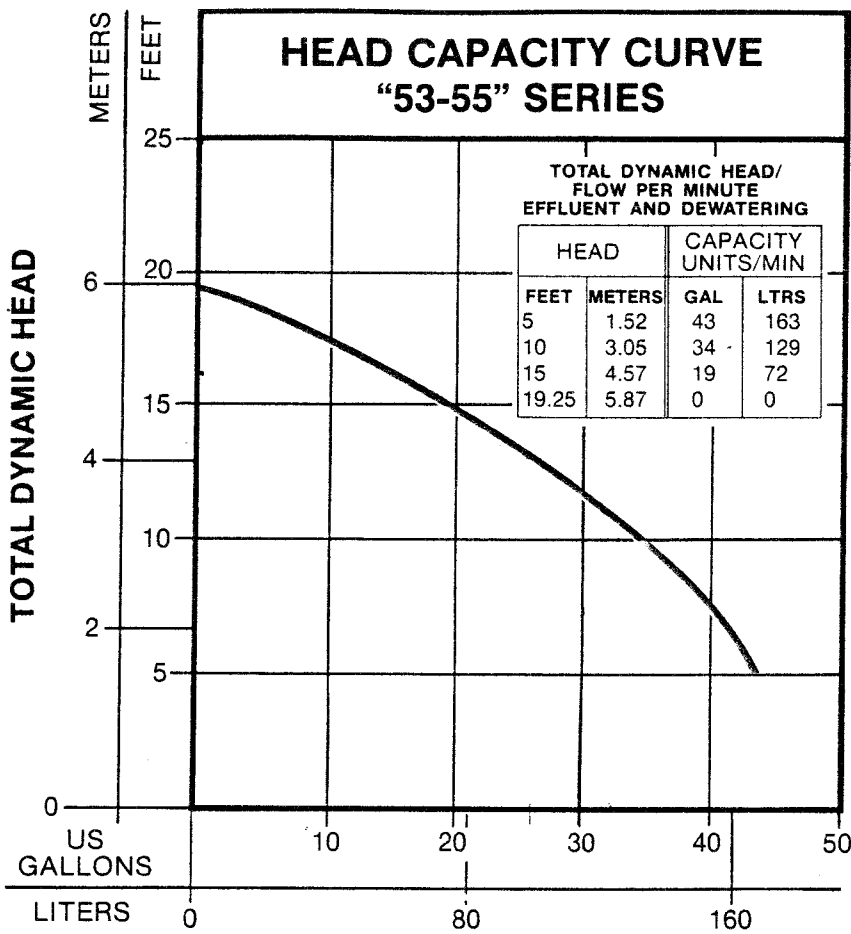
*Use non staining dye tablets only on down spout test. Some colors will stain permanently and others rinse clean.

MATERIALS

CONSTRUCTION MATERIAL STANDARDS

The materials and manufactures listed in this section are a representative sample of types and sizes available through area plumbing distributors. The Johnson County Unified Wastewater Districts neither endorses or recommends any brand name or source for materials used in this manual. They are included only to establish a minimum standard for construction materials.

RDT/jm
4293P187



CONSULT FACTORY FOR SPECIAL APPLICATIONS

- Piggyback Mercury Float Switches available.
- Variable level long cycle systems available.
- Available with special cord lengths of 15', 25', 35' and 50'.
- Alarm systems available.
- Duplex systems available.

Standard cord length - automatic 9 ft.
Standard cord length - non-automatic 15 ft.

M53/55 SERIES				Control Selection	
Model	Volts-Ph	Mode	Amps	Simplex	Duplex
M53/55	115	1	Auto 8.0	1 or 1 & 7	—
N53/55	115	1	Non 8.0	2 or 2 & 6	3 or 4 & 5
D53/55	230	1	Auto 4.0	1 or 1 & 7	—
E53/55	230	1	Non 4.0	2 or 2 & 6	3 or 4 & 5

53 Series - Wt. 23 lbs. - .3 H.P. 55 Series - Wt. 25 lbs. - .3 H.P.

SELECTION GUIDE

1. Integral float operated mechanical switch, no external control required.
2. Single piggyback wide angle mercury float switch or double piggyback mercury float switch. Refer to FM0477.
3. Mechanical alternator 10-0072 or 10-0075.
4. See FM-712 for correct model of Electrical Alternator, "E-Pak".
5. Sensor mercury float switch 10-0225 used as a control activator, with E-Pak (3) or (4) float system.
6. Four (4) hole "J-Pak", junction box, for watertight connection or wired-in simplex or duplex operation. P/N 10-0002.
7. Two (2) hole "J-Pak", junction box, for watertight connection or splice, P/N 10-0003.

For information on additional Zoeller products refer to catalog on Combination Starter, FM0514; Piggyback Mercury Float Switches, FM0477; Electrical Alternator, FM0486; Mechanical Alternator, FM0495; Alarm Package, FM0513; Sump/Sewage Basins, FM0487; and Simplex Control Box, FM0732.

CAUTION

All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed in addition to the most recent National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA).

RESERVE POWERED DESIGN

For unusual conditions a reserve safety factor is engineered into the design of every Zoeller pump.



ZOELLER CO.

3280 Old Millers Lane
P.O. Box 16347 • Louisville, Kentucky 40216
(502) 778-2731 • FAX (502) 774-3624

Manufacturers of . . .

"QUALITY PUMPS SINCE 1939"

"QUALITY PUMPS SINCE 1939"

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

ZOELLER



FM0493
0488
Supersedes
1187

3280 Old Millers Lane
P.O. Box 16347 • Louisville, Kentucky 40216
(502) 778-2731 • FAX (502) 774-3624

COMPARE THESE FEATURES

- Non-clogging vortex impeller.
- Float operated, submersible (NEMA 6) 2 pole mechanical switch.
- UL-listed 3-wire cord and plug. 9 ft. standard for automatic. 15 ft. standard for non-automatic.
- Cast iron or bronze motor and pump housing. No sheet metal parts to rust or corrode.
- Cast iron or bronze switch case
- Glass filled polypropylene base and strainer plate.
- Engineered, glass-filled impeller with metal insert.
- Stainless steel screws and switch arm.
- Model "55" stainless steel guard and handle.
- No screens to clog.
- Water tight neoprene "□" ring between motor and pump housing.
- Automatic reset thermal overload protection.
- Oil filled motor—hermetically sealed.
- Entire unit pressure tested after assembly.
- Carbon and ceramic shaft seal.
- Maximum temperature for effluent or dewatering—130° F. - 54° C.
- Passes 1/2" solids (sphere).
- 1 1/2" NPT discharge.
- RPM 1550, 60 cycles.
- On point—7 1/2".
- Off point—3".
- Major width—10 1/4".
- Height—9 3/4".

COMPLETELY SUBMERSIBLE HERMETICALLY SEALED

Water tight — dust tight. Permanently oiled bearings.

VARIABLE LEVEL CONTROL SYSTEMS AVAILABLE

ZOELLER

3280 Old Millers Lane
P.O. Box 16347 • Louisville, Kentucky 40216
(502) 778-2731 • FAX (502) 774-3624



Manufacturers of . . .

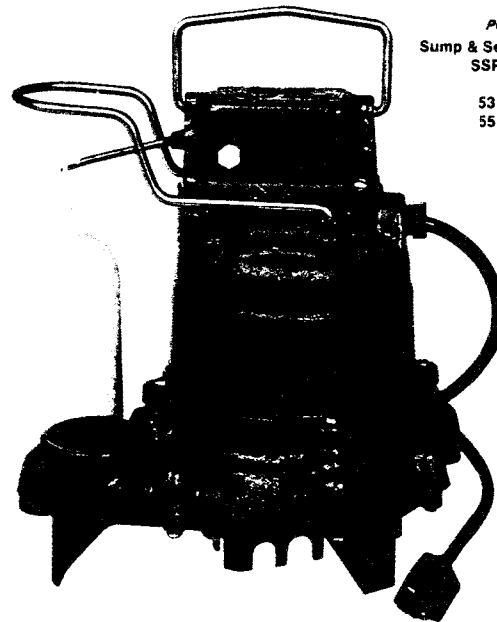
"QUALITY PUMPS SINCE 1939"

"53" Cast Iron Series "55" Bronze Series

"MIGHTY-MATE"


DEWATERING OR EFFLUENT PUMP

SUBMERSIBLE
PASSES 1/2" SOLIDS
1 1/2" NPT DISCHARGE



Sump & Sewage Pump Mfg. Assoc.
SSPMA Specification
Numbers
53 Series #SC 4425
55 Series #SB 4415

MODELS AVAILABLE

- Automatic or Non-Automatic
- "53" - .3 HP, 115V or 230V
- "55" - .3 HP, 115V only
-  Canadian Standards Assoc. Approval available
- N53 available packaged with Piggyback Mercury Float Switch.



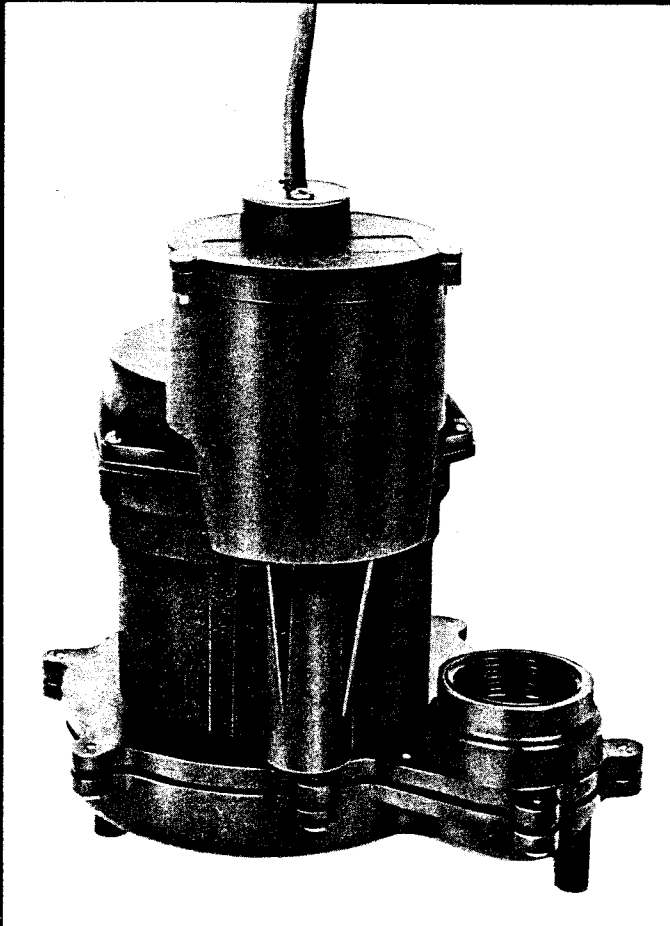
LISTED

MODEL SS35F
STEVENS SUBMERSIBLE EFFLUENT SUMP PUMP

A completely assembled unit – ready to install.
An uncomplicated reliable switch system.
Will pass up to 1/4" solids.

Setting a New Standard of Perfection...

- **Highly Engineered Quality Standards**
- **Dependable switch system** has proven reliable in 25 years of testing
- **NEW! High-tech**, state-of-the-art plastic cover employed for light weight and cool operation
- **Corrosion inhibitors** used to protect switch and electrical connections.
- **Quiet, dependable 1/3 hp oil filled, shaded pole motor** designed for reliability and long life
- **Overload protector** Positive protection against motor burnout
- **High capacity pumps** more than any other pump of comparable class
- **Cast iron construction**
- **Limited 1 year warranty**



STEVENS PUMP COMPANY pumps are guaranteed to be free from defects in material and workmanship under normal usage for a period of 12 months after it is sold to you, provided that the installation of the pump was made in accordance with the recommended written instructions of STEVENS PUMP COMPANY.

If the defect occurs within the warranty period you should write to STEVENS PUMP COMPANY, 987 PAULY DRIVE, ELK GROVE VILLAGE, IL. 60007 prior to the beginning of any repair work. STEVENS PUMP COMPANY reserves the right to inspect the alleged defect.

Upon verification, STEVENS PUMP COMPANY will repair, or at its election, furnish a new pump to replace any pump in which such defect appears without cost to the purchaser. But in no event will STEVENS PUMP COMPANY install or incur installation charges.

STEVENS PUMP COMPANY accepts no responsibility for defects or damages resulting from or connected with misuse, abuse, improper installation or other causes beyond the manufacturer's control.

UNDER NO CIRCUMSTANCES WILL THE RETAIL CUSTOMER OR ANY USER OR OTHER PERSON OR ENTITY BE ENTITLED TO INCIDENTAL OR CONSEQUENTIAL DAMAGES, FOR BREACH OF CONTRACT, TORT OR OTHERWISE.

THERE ARE NO OTHER WARRANTIES FROM STEVENS PUMP COMPANY WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS WARRANTY. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED.

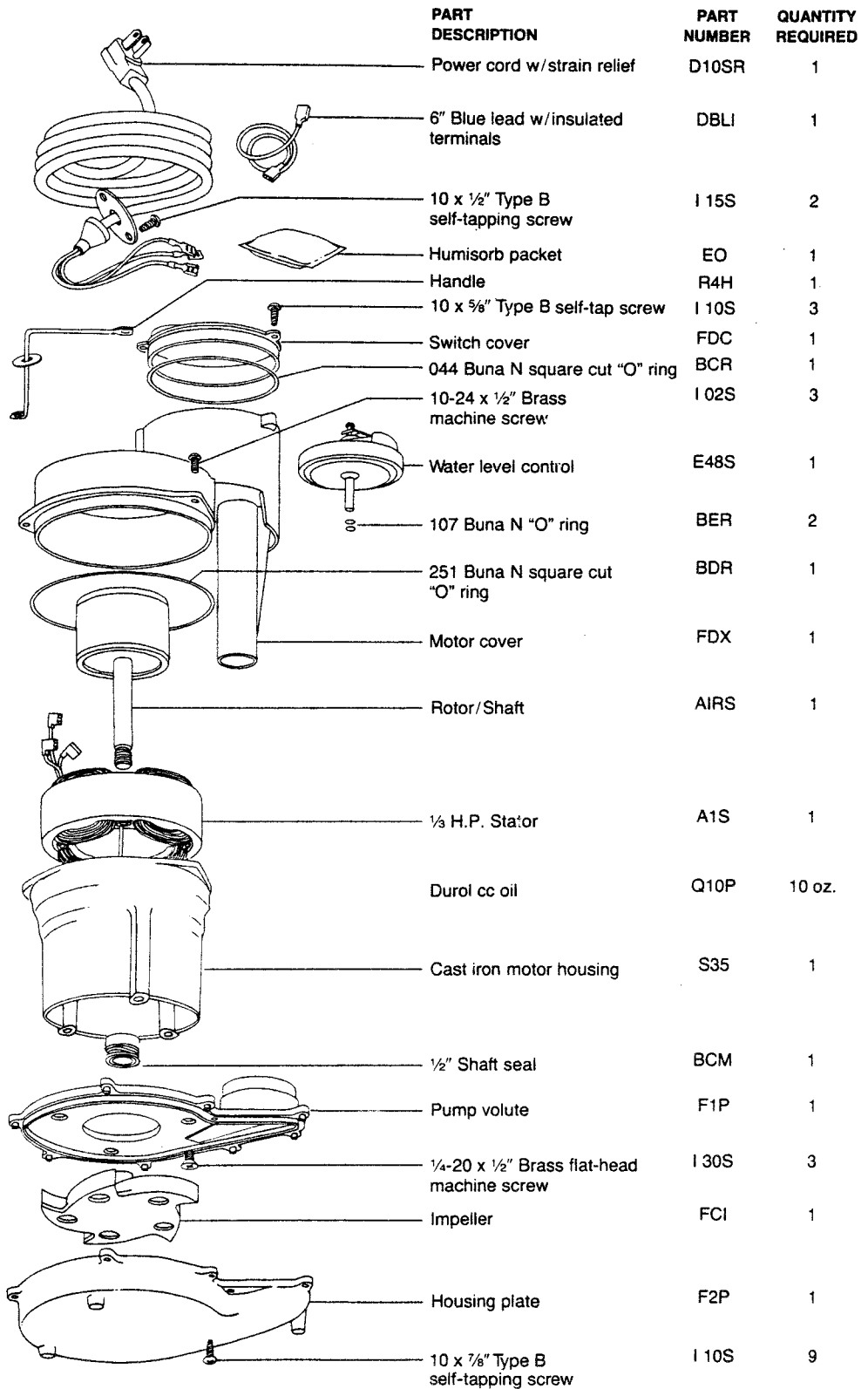
No STEVENS PUMP COMPANY dealer and no person other than an officer of STEVENS PUMP COMPANY may extend this warranty, nor may they modify it in any respect, unless such extension or modification is in writing by an officer of STEVENS PUMP COMPANY.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Stevens Pump Company
987 PAULY DRIVE
ELK GROVE VILLAGE, IL. 60007
312/981-1116

Stevens Pump Company
987 Pauly Drive • Elk Grove Village, IL. 60007 • 708/981-1116
Continental U.S.A. 1-800-443-6533

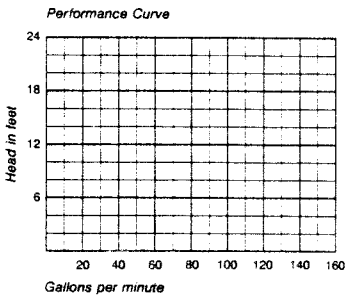
- **Simple Design** A Factory Repair Kit with easy-to-understand instructions is available, allowing the user to service the pump in emergencies



Pump Specifications

Model SS35F
 Type Submersible
 Motor H.P. 1/3
 Weight 14 Pounds
 Height 10"
 Capacity 3300 G.P.H. @ 5'
 Discharge 1 1/2" I.P.S.

Water Level Control
 Pump starts at: 9 1/2"
 Pump shuts off at: 2 1/2"



Stevens Pump Company
 987 Pauly Drive • Elk Grove Village, IL 60007 • 708/981-1116
 Continental U.S.A. 1-800-443-6533

SPC/6-90



Thermoplastic Mechanical Float Switch Models:

SSF33, 1/3 HP

SSF50, 1/2 HP



The compact design of these pumps allows installation in an 11" or wider sump basin. The UL Listed SSF series provides consumers with these benefits.

- Two pole mechanical float switch: Offers positive on-off action for many years of safe, reliable service. Turns on at 8" and off at 3".
- Thermoplastic volute and top assembly: Resists impact and safeguards electrical components. 1 1/4" vertical discharge.
- Automatic overload protection: Protects motor from overload damage.

3-prong grounding type cord provides safe operation.

Permanently lubricated, never needs oiling.

Protects electric motor and wiring from moisture damage.

Stops foreign particles before they can clog the pump.

SSF CAPACITIES

Discharge Head	HP	5 Ft.	10 Ft.	15 Ft.	20 Ft.	25 Ft.
Gallons/Hour	1/3	2800	2270	1640	530	—
Gallons/Hour	1/2	3720	3240	2700	1980	600

THERMOPLASTIC MECHANICAL FLOAT

SWITCH MODELS:

BSF33, 1/3 HP

BSF50, 1/2 HP



CAPACITIES — Models BSF33 and BSF50

Discharge Head	HP	5 Ft.	10 Ft.	15 Ft.	20 Ft.	25 Ft.
Gallons/Hour	1/3	2800	2270	1640	530	—
Gallons/Hour	1/2	3720	3240	2700	1980	600

The compact design of these pumps allows installation in an 11" or wider sump basin. The BSF series provides these benefits.

- UL Listed.
- Two pole mechanical float switch: Offers positive on-off action for many years of safe, reliable service.
- Thermoplastic volute and top assembly: Resists impact and safeguards electrical components. 1 1/4" discharge.
- Automatic overload protection: Protects motor from overload damage.
- UL Listed cord: 3-prong grounding type cord provides safe operation.
- Ball bearing: Permanently lubricated, never needs oiling.
- Carbon-ceramic seal: Protects electric motor and wiring from water damage.
- Top suction and removable screen: Stops foreign particles before they can clog the pump. Easy to clean.

Quality Pumps Since 1939

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

ZOELLER CO.



SECTION: 3.10.090

FM0861

0792

Supersedes

1291

MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347
SHIP TO: 3280 Old Millers Lane • Louisville, KY 40216
(502) 778-2731 • 1 (800) 928-PUMP • FAX (502) 774-3624

THE BASEMENT SENTRY & *SUPER SENTRY 12 VOLT BACK-UP SUMP PUMP SYSTEMS MODEL 505 & MODEL 510 "TAKES OVER WHERE OTHER SYSTEMS QUIT"

Application

For clearwater, emergency back-up usage when power is off or the primary pump(s) fail.

Extra Protection

When the primary AC pump fails due to power outages.

- Storms
- Brownouts
- Wiring or electrical problems

No other system provides the battery case, charger, and control protection & reliability as the Zoeller Systems.

Extra Protection

When the primary pump fails due to damage, mechanical malfunction or obstructions in the pit.

Extra Protection

When the primary pump fails to keep up with excessive water due to rain or overloading.

High Capacity Protection & Recovery

The Model 510 provides high capacity capabilities for dewatering in critical installations. (See performance data)

- High capacity residential locations
- Communication vaults
- Commercial locations
- Computer vaults
- Basement storage facilities

Features:

Zoeller's time tested design experience gives you the needed performance and reliability.

PUMPS- 12 volt highly efficient with non-corrosive pump construction. Model 505 - 8 Amp; Model 510 - 16 Amp

WALL TRANSFORMERS: Used with Model 505 for battery recharge. Rated at 120V, 60HZ, 2 amps.

CONTROL BOXES - Models 505 & 510 contain battery burnout and overcharge protection. Model 510 has self contained 10 amp battery recharger. Both systems are fully solid state automatic controllers with alarm, light indicators, and a complete warning system.

LIGHT INDICATORS:

(Long Lasting LED)

- Power supply "on"
- Run light
- Battery partially charged
- Battery fully charged
- Pump alarm "off"

ALARMS:

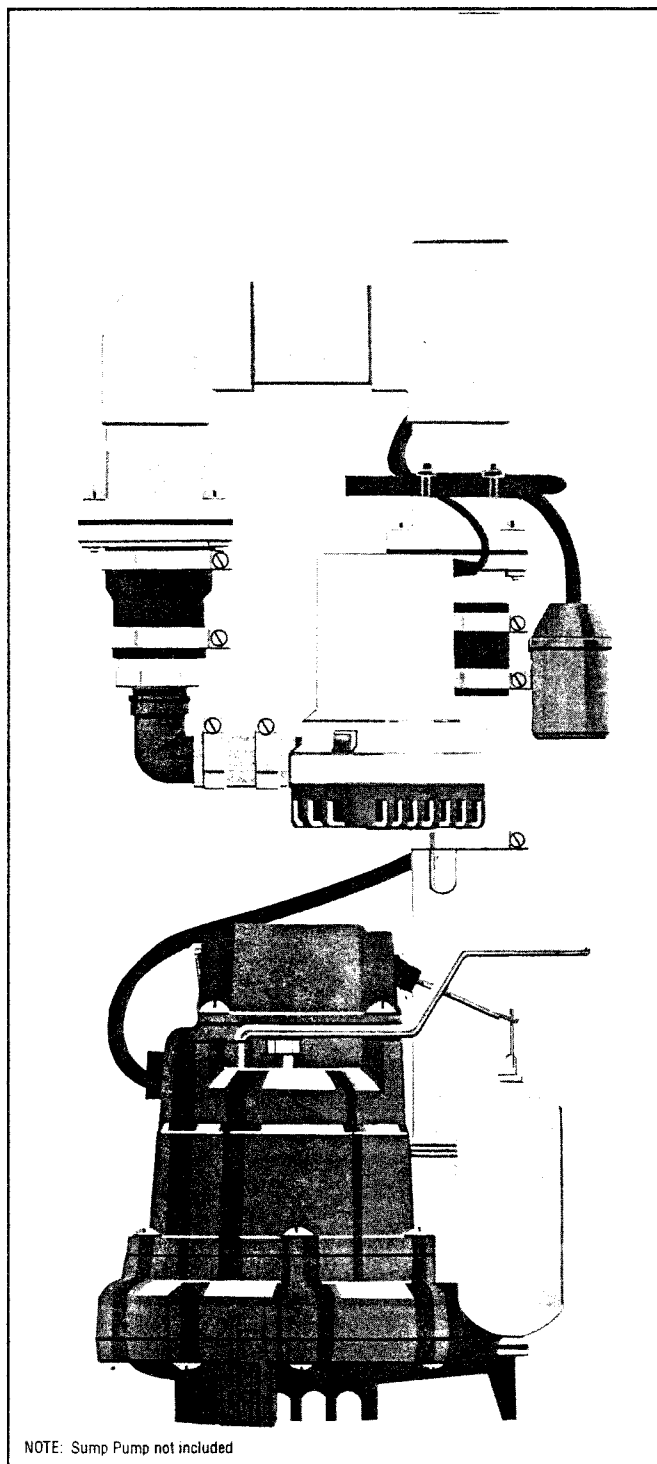
- Continuous steady beep - "low battery"
 - Slow interrupted beep - "partially discharged battery"
- (Model 510 only)

CONTROL DEVICE - Reliable low voltage float switch.

BATTERY CASE - 12½"(L) x 7"(W) x 7¾"(H).

Fits 105 or 130 amp-hour deep cycle batteries. Made from non-corrosive polyethylene. Contains lock strap. Model 510 can be used with multiple batteries. Order extra battery case with hook-up wire. (PN 007861)

FITTINGS - Furnished with all fittings required and heavy duty check valves to install with pedestal/column or submersible pumps. Adaptable to 1¼" or 1½" pipe.



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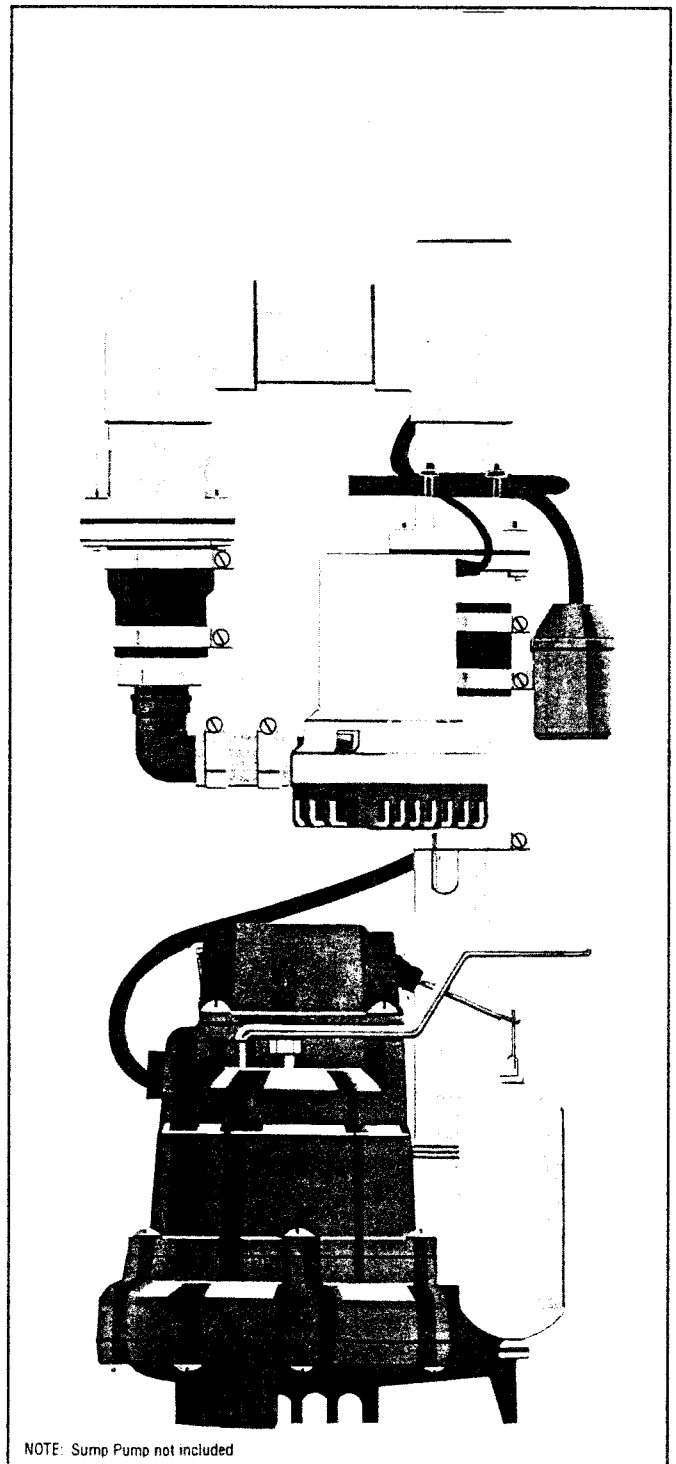
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FITTINGS - Furnished with all fittings required and heavy duty check valves to install with pedestal/column or submersible pumps. Adaptable to 1¼" or 1½" pipe.



NOTE: Sump Pump not included

Every homeowner with a sump pump needs extra protection in case of power failure, especially homeowners with finished basements. Power failures occur most often when it's raining, and the need for a sump pump is greatest.

To meet this need, Wayne offers a backup sump pump that takes over automatically when the electric pump quits. This system operates off of an automotive battery, and is self charging. It comes complete with 12V pump, mercury switch, battery case, control panel and battery charger.

Emergency Sump Pump Model:
ESP12, 12V

Emergency Sump Pump Model:
ESP12, 12V



ESP12 CAPACITIES

Discharge Head	0	2	4	6	8	10
Gallons/Hour	1750	1668	1512	1302	948	720

WAYNE[®]

a Scott Fetzer company

801 Glasgow Avenue
P.O. Box 2257
Fort Wayne, IN 46801-2257
(219) 426-4000

Every homeowner with a sump pump needs extra protection in case of power failure, especially homeowners with finished basements. Power failures occur most often during a storm, when the need for a sump pump is greatest.

To meet this need, Blue Angel offers a stand-by sump pump that takes over automatically when the electric pump fails. This system operates off of a marine or automotive battery, and is self charging. It comes complete with 12V pump, mercury switch, battery case, control panel and battery charger.

**EMERGENCY SUMP PUMP MODEL:
BSP12, 12V**



CAPACITIES — Model BSP 12

Discharge Head	0	2	4	6	8	10
Gallons/Hour	1750	1668	1512	1302	948	720



HOME-GUARD®

THE SUMP PUMP THAT WORKS EVEN DURING POWER FAILURES!

Operates on city water pressure!

Easy to install, no special tools needed. Connect water supply to 3/4" Automatic water valve. Use steel, copper or plastic piping. The 1-1/4" discharge line can be of same materials. Float controlled valve operates automatically when water level in sump reaches a pre-determined level. Built for reliability with corrosion-resistant material.

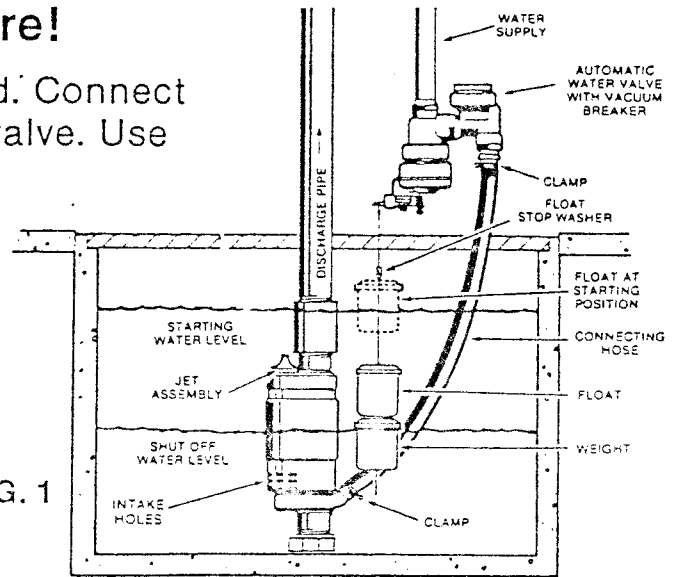
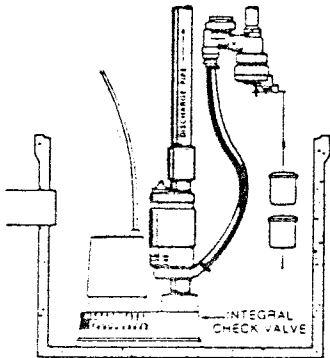
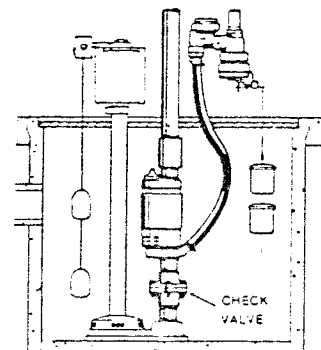


FIG. 1



The HOME-GUARD pump can also be used with most electric sump pumps with built in Check Valve, by screwing it directly to the pump discharge. This is standby protection during power failures.

FIG. 2



The same applies to vertical sump pumps. In some cases, however, a separate check valve may be needed. A check valve *must always* be present between the electric pump and the HOME-GUARD.

FIG. 3

JET ASSEMBLY	House Water Flow Rate (Gallons per minute)	House Water Pressure at Flow Rate (Pounds per Square Inch)	Amount of Water Pumped at Various Discharge Heights* (Gallons per hour)			
			5 Feet	8 Feet	10 Feet	15 Feet
Factory Installed (Normal Pressure)	4.0	30	264	198	168	66
	4.65	40	354	318	288	210
Identification "B"	5.2	50	426	396	378	312
	5.7	60	510	480	468	384
Alternate (Low Pressure)	1.8	20	138	102	84	0
	2.3	30	198	168	150	102
Identification "A-012"	2.7	40	240	204	198	156

The HOME-GUARD pump with its factory installed jet will work with normal water pressures. Extra jet assembly for low pressure operation, three-foot length of reinforced rubber hose, and stainless steel clamps are also included.

*15 feet maximum. (4.5m)

Multiple units may be used in parallel for higher capacities.

DISTRIBUTED BY:

INSTALLATION

Shut off city water supply. Use galvanized, copper or plastic pipe with TEFLON tape on the threads. DO NOT USE A WRENCH ON THE HOME-GUARD.

Connect Housing to the 1-1/4" dia. vertical drain pipe. Grasp the pipe and lower Housing into sump. Secure pipe to maintain the assembly in position. Next, connect drain pipe to the drain, with a Maximum Discharge Height of 15 feet. (4.5m)

Connect and Secure a 3/4" supply pipe to within 40 inches (1m) above the bottom of the sump, then screw the Automatic Water Valve to the end of the pipe.

Connect the hose to tail-pieces on the Housing and the Automatic Water Valve and secure with the stainless steel clamps. If a longer hose is needed, use 5/8" diameter 150 psi working pressure rubber hose and, lengthen the wire for weight and float ass'y below.

Place the weight and float assembly on the valve hook, and secure in place by spreading cotter pin ends. Adjust the weight stop washer so the weight bottom will be just above the HOME-GUARD intake. Adjust the top float stop for the valve to open before the water level reaches the sump top.

Thoroughly test your installation for leaks and proper operation.

ALTERNATE JET ASSEMBLY (Identification "A-012").

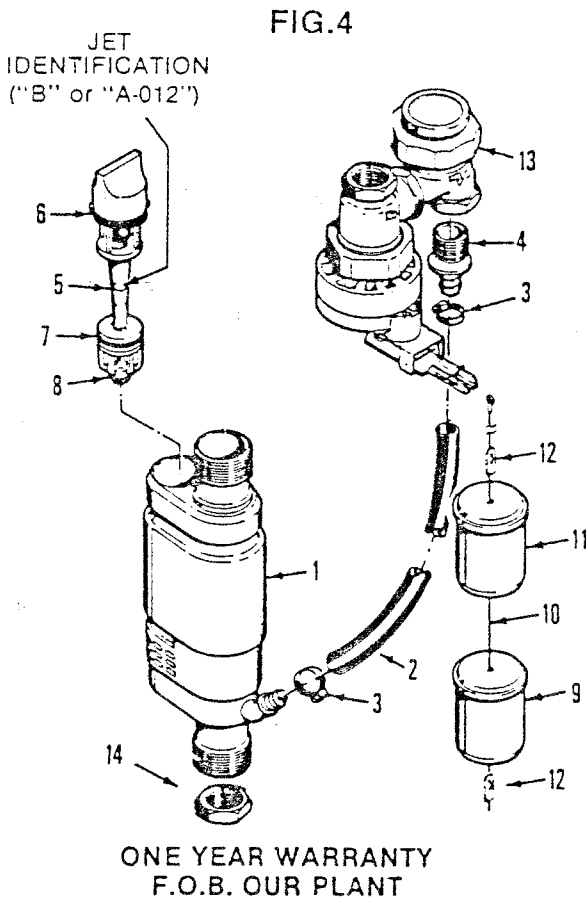
The jet assembly already installed in the HOME-GUARD is the most efficient for most installations. In cases of extreme low water pressure the HOME-GUARD will not remove water. In this case you should change the jet assembly.

1. Shut off water supply to HOME-GUARD valve.
2. Turn jet counterclockwise about 1/4 turn allowing it to climb out partially. Then pull straight out to remove from housing.
3. Insert alternate jet and push down as far as you can. Turn jet clockwise until it stops. Be sure you push jet down as far as you can and then turn.
4. Turn on water supply.
5. Thoroughly test your installation for leaks and proper Operation.

CHECK VALVE — This applies when a HOME-GUARD is installed as "Standby" protection in the discharge line of an electric sump pump. Most sump pumps have a check valve built-in but some models do not have one. Make sure you have a check valve between the electric pump and the HOME-GUARD.

NOTE: DO NOT attempt any adjustment on valve screw. Correct setting was determined at factory.
DO NOT put unit in service until you have tested it thoroughly.

HOME-GUARD® COMPONENTS



KEY NO.	DESCRIPTION
1	Housing
2	Connecting Hose (.625 x 1.00 x 36")
3	Hose Clamp (2 req'd)
4	Hose Adapter
5B	Standard Jet "B" (factory installed) (Inc. Keys 6, 7 and 8)
5A	Alternate Jet "A-012" (Inc. Keys 6, 7 and 8)
6	Large "O" Ring (2 req'd) (1.449 OD x 3/32 Wall)
7	Medium "O" Ring (1.199 OD x 3/32 Wall)
8	Small "O" Ring (.637 OD x 3/32 Wall)
9	Weight
10	Wire
11	Float
12	Stop (2 req'd)
13	Valve
14	1-1/4" ABS cap and gasket

MADE IN CANADA BY



HAMLET & GARNEAU INC.

1985 MONTEREY, LAVAL, QUE. H7L 3T6
OR.

35 GUARDSMAN RD., THORNHILL, ONT. L3T 2A1

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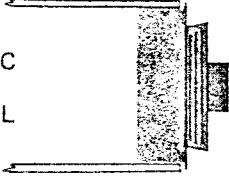
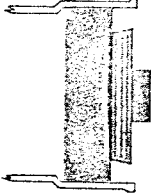
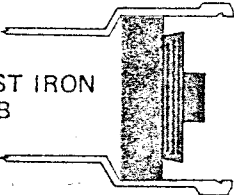
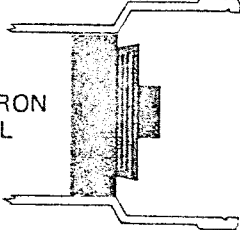
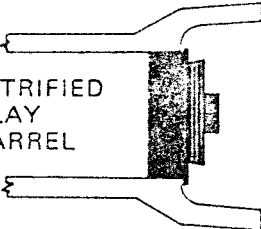
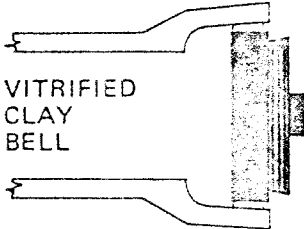
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REFERENCE CHART

"T" CONE EXPANDABLE STOPPER AND CLEANOUT PLUG (Patent Pending)

APPLICATION	NOMINAL SIZE	PART NO.	DESCRIPTION	SOCKET OR PIPE I.D.
 <p>PLASTIC PIPE BARREL</p>	1½"	S-152	PLASTIC DWV (SCH 40)	1.610"
	2"	S-202	PLASTIC DWV (SCH 40)	2.067"
	3"	S-302	PLASTIC DWV (SCH 40)	3.068"
	4"	S-402	PLASTIC DWV (SCH 40)	4.026"
	4"	S-402	PLASTIC SEWER & DRAIN	3.975"
	6"	S-601	PVC-PSM (SDR 35)	5.915"
	6"	S-602	PVC SCH 40	6.065"
	8"	S-802	PVC-PSM (SRD 35)	7.920"
8"	S-802	PVC SCH 40	7.981"	
 <p>PLASTIC DRAINAGE SOCKET</p>	3"	S-300	PLASTIC DWV (SCH 40)	3.500"
	4"	S-400	PLASTIC SEWER & DRAIN	4.215"
	6"	S-600	PVC-PSM SOCKET	6.275"
 <p>CAST IRON HUB</p>	2"	S-302	CAST IRON HUB (SW)	2.94"
	3"	S-402	CAST IRON HUB (SW)	3.94"
 <p>CAST IRON BARREL</p>	3"	S-302	CAST IRON BARREL (SW)	2.96"
	4"	S-402	CAST IRON BARREL (SW)	3.94"
	6"	S-601	CAST IRON BARREL (SW)	5.94"
	6"	S-602	CAST IRON BARREL (EH)	6.09"
	6"	S-600	LINED D.I. PIPE	6.25"
 <p>VITRIFIED CLAY BARREL</p>	4"	S-401	VCP BARREL	3.70 to 4.0"
	4"	S-402	VCP BARREL	3.875 to 4.125"
	6"	S-601	VCP BARREL	5.80 to 6.10"
	8"	S-802	VCP BARREL	7.65 to 8.0"
 <p>VITRIFIED CLAY BELL</p>	4"	S-404	VCP (FACTORY JOINT) BELL	5.60"