

# **Practical Private Sewer Lateral Management in Montgomery, Alabama**



**Mike Grant, Maintenance Department Superintendent**

**The Water Works & Sanitary Sewer Board of the City of  
Montgomery**

**June 9, 2005**

# Practical Private Lateral Management Montgomery, Alabama

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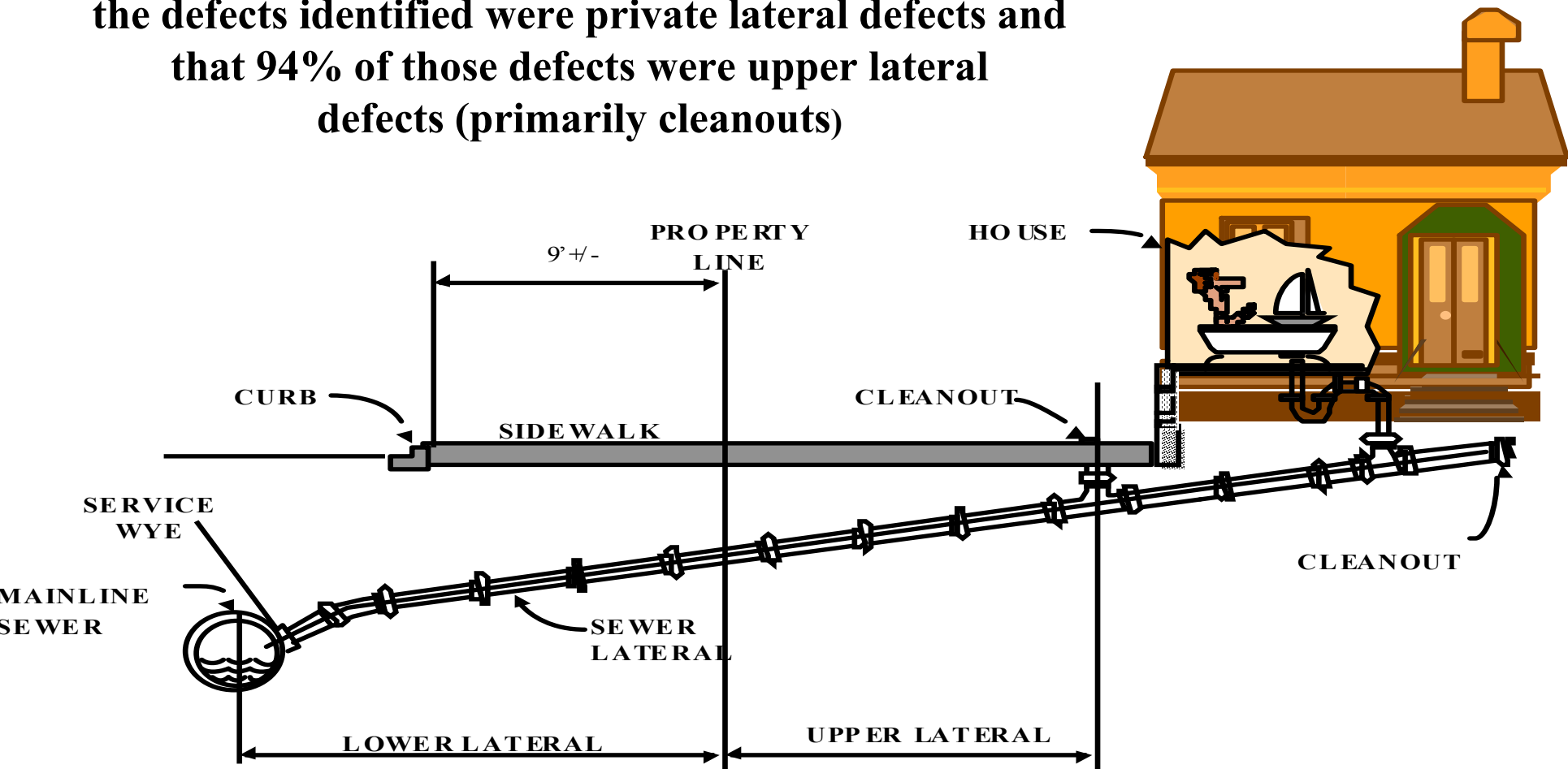
- A.) Why should the MWWSSB manage private sewer laterals?
- B.) Lateral ownership (upper & lower lateral, & connection)
- C.) Initial MWWSSB Policy
- D.) Outline of the Program
- E.) How is the program funded?
- F.) Enforcement!!!
- G.) Effectiveness of the Program
- H.) Program Changes

## **A.) Why Should the MWWSSB Manage Private Sewer Laterals**

- **Reduce wet weather maintenance issues, backups on public/private property, late night, after hour and weekend emergency work**
- **Protect the design capacity of the collection system for future development**
- **Eliminate public health concerns with sewer overflows/backups**
- **Private lateral maintenance impacts the rest of the community**
- **The majority of observed smoke defects are related to private laterals**
- **The impact of public defect repair (reduction in storm water inflow and infiltration) is minimized without repair of private defects**
- **Meet regulatory requirements**

# B.) Service Lateral Ownership & Boundaries

Montgomery's smoke testing program revealed that 84% of the defects identified were private lateral defects and that 94% of those defects were upper lateral defects (primarily cleanouts)



## **C.) Montgomery's MWWSSB Sewer Lateral Policy**

- It is the responsibility of the property owner to ... maintain sewer lateral lines from the Board's mains to the property owner's building...
- The Board will make necessary repairs ... at no expense to the Owner when it is ... documented ... that the wye fitting is broken or that the lateral connecting to the main has dropped into the main.
- Where the Board requires ... that a property owner make repairs ... under the street(within City street right-of-way) ... the Board will make the necessary repairs at no cost to the owner if the owner executes contract...City of Montgomery assumes cost of street paving.

## **D.) Outline of Private Lateral Management Procedures**

- ☞ Smoke test to identify lateral defects, classify & document**
- ☞ Send appropriate notices to owners - listing alternatives for repair or replacement of lateral**
- ☞ Monitor progress and thank those who comply - visual inspection and/or follow up smoke test**
- ☞ Send final notices to those who don't comply**
- ☞ Monitor progress and penalize those who don't comply**

# Smoke test, identify defects, classify and document

1.) Smoke testing begins with proper safety precautions

Pneumatic sewer plug



Specialized tools can limit confined space entry

2.) Isolating the sections of main to be tested offers concentrated smoke to locate defects

Traffic cones, reflective tape, vehicle beacon... protect the work site





**3.) Specialized blowers for smoke testing make the set up & test quick and easy**

**4.) Smoke products can be purchased in liquid form, dispensed with a garden sprayer attached to the blower & the amount produced controlled simply by hand**



**Garden sprayer (smoke dispenser)**

**Smoke blower**



**5.) Identify the defects and classify the type & location for the owner**



**6.) Document public defects on mains & manholes to produce work orders for Utility crews**

**Smoke defect identified in lawn on private service - marked with biodegradable paint and a wire flag stake**



**Specialized software allows for defect management with laptop PC in the field by the smoke test crew members - digital photos of the defect & building are attached to the defect record**

**7.) Document smoke test results and manage data as efficiently as possible**





**Defect Class #1  
“Defect in Yard”...  
Could include  
broken service pipe,  
illegal connections  
(downspouts or  
yard drains),  
damaged cleanout,  
etc.**

**Customer options  
include...**

- **make the repair**
- **hire a plumber to  
repair or replace**
- **consider trenchless  
alternatives**



**Defect Class #1**

**Repair or Replacement  
of Defective Lateral**

**on Property- Owner Assumes all Cost**



## **Defect Class #2 “Missing Cleanout Cap”**



**Most typical defect discovered - missing cleanout cap - easily remedied, but often removed again to provide yard drainage**

## Defect Class #3 “Repair Under the Street”





# CAMERA TRUCKS



# INSIDE THE CAMERA TRUCKS



## **D.) Outline of Private Lateral Management Procedures**

- ☞ Smoke test to identify lateral defects, classify & document
- ☞ **Send appropriate notices to owners - listing alternatives for repair or replacement of lateral**
- ☞ **Monitor progress and thank those who comply - visual inspection and/or follow up smoke test**
- ☞ **Send final notices to those who don't comply**
- ☞ **Monitor progress and penalize those who don't comply**

# DEFECT#1 LATERAL REPAIR IN YARD

## **W**ATER WORKS AND SANITARY SEWER BOARD *of the City of Montgomery*

22 BVM Street, P.O. Box 1431, Montgomery, Alabama 36101-1431

(334) 294-1400 (334) 832-4887 FAX

Thomas E. Morgan  
General Manager  
William R. Henderson,  
Asst. General Manager  
Charles F. Wicks,  
Asst. General Manager  
Board of Directors  
Richard E. Hahn  
Chairman  
Robert W. Bietzke  
Vice-Chairman  
Bertice Robertson  
Secretary  
Lode E.  
Rugh M. Cole  
Brentford M. Blanton  
Anthony V. Dunas  
Ray L. Robin  
Mildred J. Worley

04-Mar-05

CUSTOMER  
4193 GOODE ST  
MONTGOMERY AL 36105

Dear Customer,

Stormwater (rainfall runoff) has been entering the Water Works and Sanitary Sewer Board's sanitary sewers and overloading the existing system in your neighborhood. Surcharging of the sanitary sewers has created plumbing difficulties and, in some cases, caused property damage. During the last several weeks, the Board's personnel

and/or representatives have been smoke testing your area to identify the locations of the stormwater entering the sanitary sewer mains.

Smoke testing of your neighborhood indicated that there are one or more areas on your property that are allowing stormwater to enter the sanitary sewer mains. Outlined

below are the repair(s) required and the specific problems to be corrected. PLEASE MAKE ARRANGEMENTS TO COMPLETE THESE REPAIRS WITHIN THE NEXT SIXTY (60) DAYS. If you are renting the property or are not the responsible party, please forward this letter to the property owner or landlord. IF YOU DO NOT FORWARD OR RESPOND TO THIS LETTER, YOUR WATER SERVICE MAY BE DISCONNECTED.

**Repair Required: LATERAL REPAIR IN YARD**

**Defect Identified As: Smoke detected in yard**

Lateral repairs must be made to prevent the entrance of stormwater into the sewer system. Please do not fill the holes in your yard above the cracks in your lateral until repairs are made. Filling of these holes prior to the repairs may cause blockage of the lateral.

The attached pictures indicate the general location of the defect(s) on your property. Our crews have marked the locations with wire flags and orange biodegradable paint for your convenience.

The Board hopes that the community will realize that the stormwater in the sanitary sewer can cause a serious problem, and with everyone's cooperation, many problems may be eliminated. If you have any questions or want more information on the Board's Smoke Testing Program, please do not hesitate to call our Maintenance Department at 206-1757 or visit our website (<http://www.mwvssb.com>).

Sincerely,

Suzanne Smith  
Maintenance Database Coordinator

# Defect Class #2 - Missing Cleanout Cap

**WATER WORKS AND SANITARY SEWER BOARD**  
of the City of Montgomery  
22 Bank Street, P.O. Box 1411, Montgomery, Alabama 36102-1411

(204) 261-1400 (204) 621-4895 FAX

Thomas R. Morgan  
General Manager

William R. Henderson,  
Asst. General Manager

Charles F. Walsh,  
Asst. General Manager

Board of Directors  
Richard E. Hagan  
Chairman

Bobby W. Blalock  
Vice-Chairman

Bonnie Robertson  
Secretary

Leslie E. Blankenship  
Hugh M. Cole  
Reynold Al Dixon  
Anthony V. Dennis  
Ray L. Rouse  
Michael J. Worley

24-Jan-05

CUSTOMER  
964 RIDGECREST ST A  
MONTGOMERY AL 36105

Dear Customer,

Stormwater (rainfall runoff) has been entering the Water Works and Sanitary Sewer Board's sanitary sewers and overloading the existing system in your neighborhood. Surcharging of the sanitary sewers has created plumbing difficulties and, in some cases, caused property damage. During the last several weeks, the Board's personnel and/or representatives have been smoke testing your area to identify the locations of the stormwater entering the sanitary sewer mains.

Smoke testing of your neighborhood indicated that a cleanout cap was missing on your sanitary sewer lateral, which results in a source of stormwater entry into the collection system. THE WATER WORKS AND SANITARY SEWER BOARD IS OFFERING TO REPLACE THE CLEANOUT CAP AT A COST OF \$13.00 plus 4% UTILITY TAX, WHICH WILL BE APPLIED TO YOUR NEXT WATER BILL. Please note that the replacement of the cleanout cap by the Water Works and Sanitary Sewer Board does not indicate that other problems are not present. Also, replacement of the cleanout cap by the Water Works and Sanitary Sewer Board does not relieve you of your responsibility pursuant to the Board's Rules and Regulations Governing Service to Sanitary Sewer Users, to repair problems found during future smoke testing operations. If repairs other than the cleanout cap are required, another letter will be sent to you requesting that those repairs be made. If you are renting the property or are not the responsible party, please forward this letter to the property owner or landlord. IF YOU DO NOT FORWARD OR RESPOND TO THIS LETTER, YOUR WATER SERVICE MAY BE DISCONNECTED.

If you wish for the Water Works and Sanitary Sewer Board to replace your cleanout cap, please sign and date this letter and return it to the above address or you may fax it to 832-4895. IF YOU DO NOT WANT THE WATER WORKS AND SANITARY SEWER BOARD TO REPLACE YOUR CLEANOUT CAP, PLEASE MAKE ARRANGEMENTS TO REPLACE THE CLEANOUT CAP WITHIN THE NEXT 60 DAYS.

It is extremely important that the cleanout cap stay in place and NOT be removed except when the sanitary sewer lateral is being serviced. After service, the cap should IMMEDIATELY be replaced. IF THIS CAP IS REMOVED OR DESTROYED, OR IF THESE REPAIRS ARE NOT MADE WITHIN THE NEXT SIXTY (60) DAYS OF THE DATE OF THIS NOTICE, THE BOARD WILL DISCONTINUE WATER AND SEWER SERVICE TO YOUR RESIDENCE ACCORDING TO ITS RULES AND REGULATIONS. The attached pictures indicate the general location of the defect(s) on your property. Our crews have marked the location with a wire flag and orange biodegradable paint for your convenience.

24-Jan-05

The Board hopes that the community will realize that the stormwater in the sanitary sewer can cause a serious problem, and with everyone's cooperation, many problems may be eliminated. If you have any questions on this matter or want more information about the Board's Smoke Testing Program, please do not hesitate to call our Maintenance Department at 206-1757 or visit our website (<http://www.mwwsb.com>).

Sincerely,

Suzanne Smith  
Maintenance Database Coordinator

ENCLOSURE

I, \_\_\_\_\_, (please print)  
authorize the Water Works and Sanitary Sewer Board, of the City of Montgomery to replace my cleanout cap. For this work, I agree to pay \$13.00 plus 4% utility tax. I understand that the amount due will be added to my regular water bill.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date  
964 RIDGECREST ST A  
MONTGOMERY AL 36105

Property Owner pays \$13.52

Signature block for customer to authorize Board cleanout replacement

# Defect Class #3 - Contract For Repairs Under Street

**WATER**  
**WORKS AND SANITARY SEWER BOARD**  
of the City of Montgomery

2220A Street, P.O. Box 1431, Montgomery, Alabama 36102-1431

(334) 261-1400 (334) 832-1487 FAX

**Thomas R. Morgan**  
General Manager

**William R. Henderson,**  
Asst. General Manager

**Chadler F. Walsh**  
Asst. General Manager

**Board of Directors**  
**Richard E. Hanan**  
Chairman

**Hobby W. Blalock**  
Vice Chairman

**Ronnie Robertson**  
Secretary

**Lucie E. Blankenship**  
Hugh M. Cole  
Reverend Al Dixon  
Anthony V. Thomas  
Ray L. Foster  
Mildred J. Worley

11-May-05

CUSTOMER  
4259 SOUTHWOOD DR  
MONTGOMERY AL 36116

Dear Customer,

During the operation and maintenance of its sewer system, the Board from time to time utilizes investigative methods, i.e. smoke testing, to determine the location of sewer system defects that might allow storm water (rainfall runoff) into the sewer system or stormwater drains. Storm water can overload the sewer system when sewer mains and laterals are neglected.

Smoke testing in your neighborhood indicated that there are one or more areas on your sewer lateral, within City of Montgomery's street right-of-way, that are allowing storm water to enter the Board's sanitary sewer mains. This means that a portion of your sanitary sewer lateral located within the City of Montgomery's street right-of-way requires repair. It is the responsibility of the property owner to maintain sewer laterals that serve the owner's property in accordance with the Board's Rules and Regulations.

Outlined below are the repair(s) required and the specific problems to be corrected. In addition, the attached pictures indicate the general location of the defect(s) on your sewer lateral. Our crews have marked the locations with wire flags and orange biodegradable paint, where possible, for your convenience. **PLEASE MAKE ARRANGEMENTS TO COMPLETE THESE REPAIRS WITHIN THE NEXT SIXTY (60) DAYS.** If you are renting the property and are not the responsible party, please forward this letter to the property owner or landlord. **IF YOU DO NOT FORWARD OR RESPOND TO THIS LETTER, YOUR WATER SERVICE MAY BE DISCONNECTED.**

**Repair Required: REPAIR LATERAL DEFECT IN RIGHT-OF-WAY**

**Defect Identified as: Smoke detected at curb or back of curb**

You may either have a licensed plumber perform the repairs at your expense, or you may request that the Board perform the repairs. When requested to do so by the Owner, the Board will make necessary repairs to that part of the Owner's lateral located within the city of Montgomery's street right-of-way, at no cost to the property owner. The Owner must make the request by legal signature on the "SEWER LATERAL REPAIR REQUEST AND AGREEMENT" form enclosed with this letter, before the Board can make repairs on the Owner's sewer lateral. The Board does not make repairs on private property. Proof of ownership (copy of the deed, or other title information) must accompany the signed form. **IF YOU DO NOT REQUEST THAT THE BOARD PERFORM THE REPAIRS, PLEASE MAKE ARRANGEMENTS TO HAVE THE LATERAL REPAIRED WITHIN THE NEXT SIXTY (60) DAYS.** If the repairs are not completed within sixty (60) days, your water service may be disconnected.

The Board hopes that the community will realize that storm water in the sanitary sewer can cause a serious problem and higher sewer treatment costs. With everyone's cooperation, many problems and service costs may be eliminated. If you have any questions or want more information on the Board's Smoke Testing Program, please do not hesitate to call our Maintenance Department at 206-1757 or visit our website at <http://www.mwvssb.com>.

Sincerely,  
Suzanne Smith  
Maintenance Database Coordinator

## SEWER LATERAL REPAIR REQUEST FORM AND AGREEMENT

I, \_\_\_\_\_ (please print)  
certify that I am the owner of the property referred to below. I acknowledge that it is my responsibility to maintain sewer laterals that serve my property in accordance with the Board's Rules and Regulations. I request that the Water Works and Sanitary Sewer Board of the City of Montgomery repair the sanitary sewer lateral in the City of Montgomery's street right-of-way that serves the property referred to in this letter. I authorize the Board to make such repairs as it deems necessary. I understand that I will not be responsible for any of the costs associated with this repair. In exchange for the Board's repair of the sewer lateral in the City of Montgomery's street right-of-way at no cost to me, I agree to indemnify and hold the Board harmless for any damage, including personal injury and property damage, whether real or personal, which may occur during the course, or as a result, of any repairs performed by the Board pursuant to this request.

Signature

Date  
4259 SOUTHWOOD DR  
MONTGOMERY AL 36116

**Customer must sign and provide  
proof of ownership before  
MWWSSB will make the repair**



# HANDBILL

## *Wastewater Collection in the City of Montgomery*



The Montgomery Water Works and  
Sanitary Sewer Board

# www.mwwssb.com

Home | Montgomery Water Works - Microsoft Internet Explorer


File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail

Address <http://www.mwwssb.com/index.cfm> Go Links

Home Customer Care Awareness Water Quality **About Us**

**WATER WORKS & SANITARY SEWER BOARD OF THE CITY OF MONTGOMERY**



- Who We Are
- Departments
  - Customer Service
  - Engineering
  - Environmental Services
  - Maintenance
- Give
  - Collection System
  - How You Can Help
  - Private Sewer Laterals

**NEWS**


Check Out Our New Website!

**EMPLOYMENT**

MAINTENANCE UTILITY WORKER: 03/07/05

**QUICK PICKS**

- Where can I pay my bill?
- How do I read my meter?
- How do I get new service?
- Is my water safe?
- What forms do I need?
- Other questions? E-mail Webmaster



**PAY YOUR BILL**

**Clean Water Partnership Links** CWP Home Alabama-Tombigbee Tallapoosa

**VIEW THE LATEST WATER QUALITY REPORT**

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about\_engineering\_plms.cfm Internet

Start Microsoft PowerPoint - [M...] Home | Montgomery ...

8:53 AM

## **E.) How is the Program Funded?**

### **Program Cost (MWWSSB)**

- **Personnel - two to three member field crew**
- **Equipment - service truck, blower, smoke, hand tools, safety equipment, sewer plugs, CCTV, etc.**
- **Management - software, office staff, etc.**

### **Defect Repair Cost (Property Owner & MWWSSB)**

- **Defect Class #1 - Defect in Yard**
- **Defect Class #2 - Cleanout Cap Missing**
- **Defect Class #3 - Repair under the Street**

## F.) Enforcement

**The Montgomery  
Water Works &  
Sanitary Sewer Bd.  
disconnects  
water service to  
those customers  
who do not make  
adequate sewer  
lateral defect  
repairs in the time  
frame allowed  
by the Board.**



## G. Effectiveness of the Program

- High percentage of problem services repaired/replaced/rehabilitated - (94% over 10 years)
- Customer complaints reduced - fewer backups & overflows
- Treatment costs lowered - (reduced wet weather treatment flows)
- Administrative orders satisfied - Catoma Basin

## **G. Effectiveness of the Program...**

This program completes all other sewer rehabilitation programs...why address only mainline and manhole defects when the majority of defects found occur on private laterals?



## H.) Program Changes

Flexible, but true to program goals...

- Cleanout caps installed by the Board to save cost to owner
- Vacant Lots
  - Existing repaired by Board
  - Current repaired by Contractor
- Cost of repair under pavement (within City right-of-way)

## H.) Program Changes...

### Missing Cleanout Cap Replacement

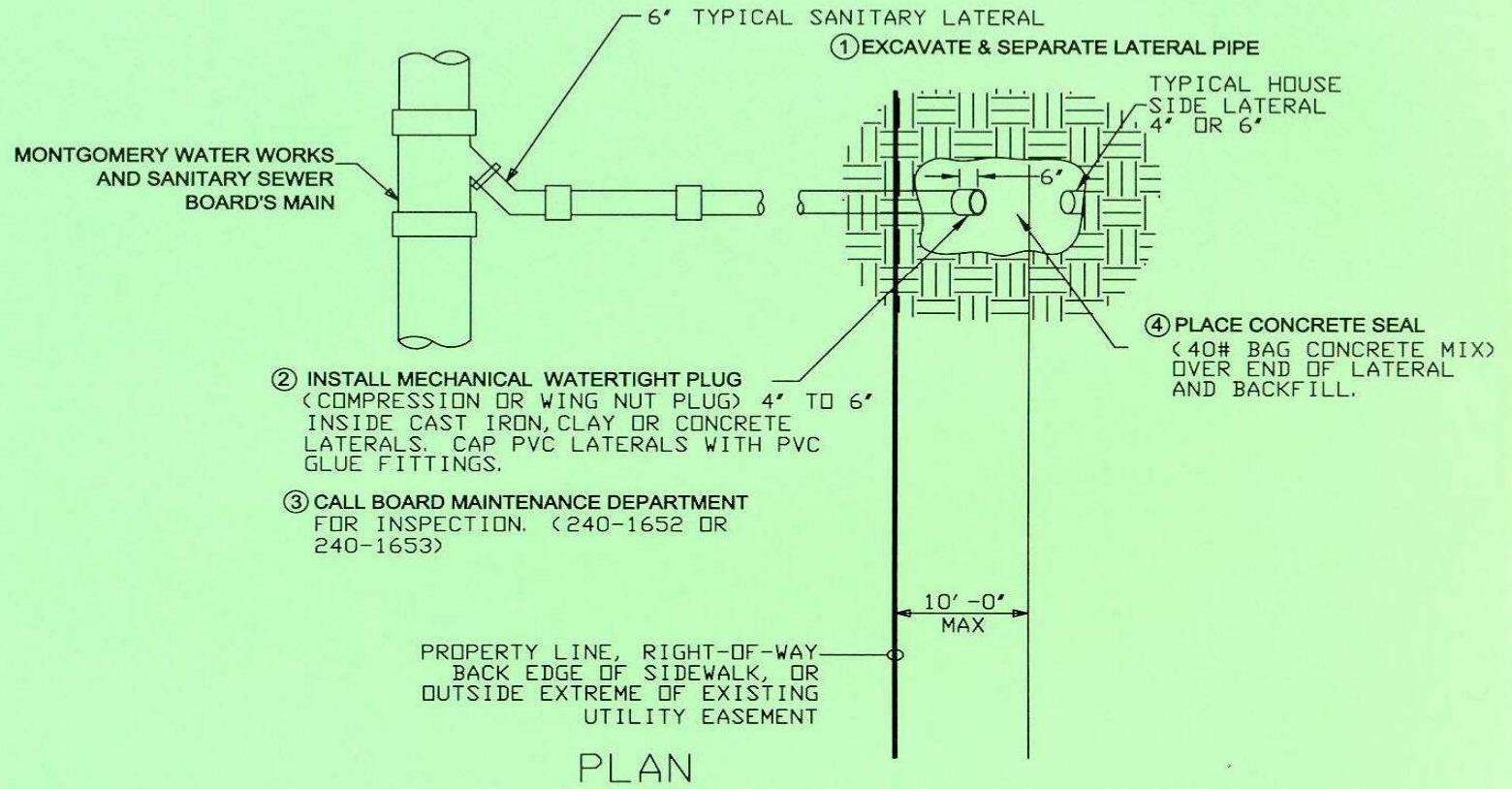
**Mechanical compression  
type cleanout cap (tightens  
with a hex-nut wrench) is  
inexpensive, quickly installed  
and more difficult for home  
owners to remove.**



# H.) Program Changes...by Contractor

Water and Sewer Board crews plug abandoned services as they are identified to quickly halt unwanted I/I from entering the sewer

## Abandon Services Correctly to prevent I/I



SANITARY SEWER LATERAL ABANDONMENT DETAIL

NTS

219

0021D.DWG

# H.) Program Changes...

## MWWSSB Existing Sewer Lateral Policy

- It is the responsibility of the property owner to ... maintain sewer lateral lines from the Board's mains to the property owner's building...
- The Board will make necessary repairs ... at no expense to the Owner when it is ... documented ... that the wye fitting is broken or that the lateral connecting to the main has dropped into the main.
- Where the Board requires ... that a property owner make repairs ... under the street (within City street right-of-way) ... the Board will make the necessary repairs at no cost to the owner if the owner executes contract...City of Montgomery assumes cost of street paving

# H.) Program Changes...

## Defect Class #3 - Contract For Repairs Under Street Property Owner Paid Maximum \$1,200 (under old policy)

SAMPLE

### CONTRACT FOR SEWER LATERAL REPAIR

This Agreement made, effective as of \_\_\_\_\_, 19\_\_\_\_, by and between NAME OF PROPERTY OWNER and NAME OF PROPERTY OWNER, husband and wife, whose address is, ADDRESS, hereinafter collectively referred to as "Owner," and the Water Works and Sanitary Sewer Board of the City of Montgomery, 22 Bibb Street, Montgomery, Alabama 36104, hereinafter referred to as "Board."

### SECTION ONE SCOPE AND DESCRIPTION OF WORK

The Board agrees to perform for Owner repairs and improvements necessary to bring Owner's sewer lateral into compliance with the Board's Rules and Regulations Governing Service to Sanitary Sewer Users and upon the property of Owner located at PROPERTY ADDRESS. The Board shall furnish all labor and materials for such work. The Board's Rules and Regulations Governing Service to Sanitary Sewer Users are expressly incorporated into this Agreement.

### SECTION TWO CONTRACT PRICE

Owner will reimburse the Board for all expenditures for labor and materials required to

**Contract:  
Owner's Name &  
Address**

Exhibit "B"

MORTGAGE NOTE

(\$ \_\_\_\_\_)

MONTGOMERY, ALABAMA

\_\_\_\_\_  
ABOVE SPACE RESERVED FOR RECORDING INFORMATION

This instrument was prepared by:  
The Water Works and Sanitary Sewer Board  
of the City of Montgomery  
P.O. Box 1631  
Montgomery, Alabama 36102-1631

REAL ESTATE MORTGAGE  
("SECURITY INSTRUMENT")

STATE OF ALABAMA )

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF MONTGOMERY )

THAT WHEREAS, NAME OF PROPERTY OWNER and NAME OF PROPERTY OWNER, husband and wife, (hereinafter collectively referred to as "Mortgagor") are justly indebted, to the Water Works and Sanitary Sewer Board of the City of Montgomery (hereinafter called "Mortgagee"), in the sum of \_\_\_\_\_ AND \_\_\_\_\_/100 DOLLARS (\$ \_\_\_\_\_), as evidenced by promissory note of even date herewith and payable as provided therein; and

WHEREAS, Mortgagor agreed, in incurring said indebtedness, that this Mortgage ("Security Instrument") should be given to secure the prompt payment thereof;

NOW, THEREFORE, in consideration of the premises, said Mortgagor, and all others executing this Mortgage ("Security Instrument"), does hereby grant, bargain, sell and convey unto the Mortgagee the following described real estate, situated in Montgomery County, State of Alabama, to-wit:

### LEGAL DESCRIPTION OF PROPERTY

Said property is warranted free from all encumbrances and against any adverse claims, except as may be stated herein.

TO HAVE AND TO HOLD the above granted property unto the said Mortgagee, Mortgagee's successors, heirs, and assigns forever.

**Mortgage  
Agreement:  
Property  
Description**

FOR VALUE RECEIVED, the undersigned, NAME OF PROPERTY OWNER and NAME OF PROPERTY OWNER, husband and wife, agree to pay to the order of the Water Works and Sanitary Sewer Board of the City of Montgomery, the principal sum of \_\_\_\_\_ and \_\_\_\_\_/DOLLARS, in legal tender of the United States of America. The principal shall be due and payable as follows: In 47 equal, consecutive, monthly installments of \$ \_\_\_\_\_ each, and one final installment of \$ \_\_\_\_\_, the first payable on the 1st day of \_\_\_\_\_, 19\_\_\_\_, and one on the 1st day of each successive month thereafter until paid in full.

It is expressly agreed that in default is made in the payment of any of the above installments of principal, that all of the principal sum above specified shall at the election of the holder hereof become at once due and payable without notice. In the event of default, the undersigned and all endorsers and guarantors also agree to pay the cost of collection, if any, including a reasonable attorney's fee.

If the holder of this note has not received the monthly payment by the end of ten (10) calendar days after the date it is due, the undersigned agree to pay a late charge which shall be five (5%) percent of the overdue payment of principal and interest.

The undersigned and all endorsers or guarantors hereof hereby waive demand, presentation, protest and notice of protest hereon. The parties to this instrument, whether maker, endorser, surety or guarantor, each for himself, hereby severally waive as to this debt or any renewal thereof, all right of exemption under the Constitution and laws of Alabama, as to personal property.

This note is secured by a real estate mortgage of even date, executed by the undersigned.

The undersigned reserve the right to prepay this debt or any portion thereof at any payment period without any penalty.

\_\_\_\_\_  
NAME OF PROPERTY OWNER

**Mortgage Note:  
Monthly Payment**

**Under new policy, owner  
pays only expenses for  
their plumber's expense**

