

12-31-99  
washing out Big Tank  
looks like an air  
line is broke - bubbling  
Sludge up over weirs  
Stayed 1 1/2 hrs - it is  
clear now. Settlemeter  
was 500 in 5 mins  
does not look like  
a settling problem  
changed timer for  
once per hour until  
I can have it fixed

1-1-2000  
Came over 11:30  
Clarifier covered with  
Sludge - air line stopped  
up. I hand dipped  
Sludge off top of  
Clarifier & adjusted  
air line after for  
it restarted  
Set plant to run 45 on  
& 45 off added Chlorine  
tab. Hope this is not  
sign of how the year  
will go here

1-3-2000

Checked everything  
Still has sludge on top  
of clarifier - Dipped  
it again - Called Joe  
told them the problem  
He is going to send  
maintenance crew to  
fix it.

1-4-2000 Sent bill out

Talked to Barbara Risk  
Told her I had called  
Joe Ewalt Aquasource  
He had said he would  
get maintenance crew  
out to fix plant -  
Talked to Ted Fouse  
he is going to sample  
today said fast test,  
Came off ok - Go figure!

Ted called said  
plant was BAD. Washing  
out sludge -

I called Thornton to  
pump out -  
I went over  
to check it - plant  
was about to wash out  
pump cannot keep up  
with F+I it was a  
mess but can't do anything

1-5-2000

Went to plant checked  
everything  
Thornton pumped  
out 2000 gallons  
eff looked good  
added Clarin Tabs

1-6-2000

Joe Ewalt Aqua Source  
Worked on middle  
Skimmer - blew it  
out & cut it down  
Effluent looked good

1-10-2000

checked everything  
took over an hour  
to get sludge off top  
of clarifier  
added 30 Clarin Tabs  
cleaned screen  
washed down  
effluent looks good

1-12-2000

checked plant

Scraped clarifier

dipped scum out

added chlorine tabs

Effluent looks good

1-13-2000

got hour meter

installed

76.9 reading on meter,

added 2 tabs chlorine

washed down

Scraped clarifier

dipped sludge off top

1-15-2000

checked everything

added chlorine Tab

washed down

Clarifier looks good

return seems a little

high

85.3 hour meter

1-17-2000

checked plant

added 2 chlorine Tabs

95.5 hour meter

1-19-2000

checked everything  
scraped walls of clarifier  
dipped screen and  
trash out  
added 1 chlorine tab  
effluent looks good  
105.2 hour meter

1-23-2000

checked everything  
scraped clarifier  
added chlorine  
128.4 hour meter

1-25-00 sent bill out

checked plant  
added chlorine  
effluent looked good  
139.2 hour meter

1-27-00

checked everything  
added 2 chlorine tabs  
effluent looks good  
148.8 hour meter

1-31-2000 1 hour  
checked everything  
added chlorine 1 Tab.  
eff. looks good  
168.4 hour meter

2-1-2000 2 hours  
checked plant  
water was froze  
added chlorine  
had to go back second  
trip to shut off water  
172.7 hour meter

2-3-2000 1 hr.  
checked plant  
Scraped wet well (sum)  
clarifier  
adjusted PMS  
added chlorine  
185.2 hour meter

2-7-2000 1hr  
206.7 hour meter  
cleaned plant  
Scraped clarifier  
dipped screen box  
added chlorine

2-9-00 1 1/2 hr  
Had Thornton Lake  
approx. 2000 gallons  
out (Sludge)  
Scraped clarifier  
eff looks good  
(need to fix hydrant)

2-10-00 2 hrs  
233.9 hour meter  
checked plant  
added chlorine tabs  
Scraped Clarifier  
did draw down on  
pump at cl<sub>2</sub> basin

Pump pit

$$12 \times 2 \times 1 \times 7.48 = \frac{179.52 \text{ gal}}{12 \text{ inches}}$$

14.96 gal/inch

5 inches in 2.5 minutes

14.96 gal/inch  $\times$  5 inches

74.8 gal/inch = 4986 gal/sec  $\times$  60

150 sec

30 gpm

15-16 = 9180 gpd

17-18 = 8730 gpd

19-22 = 10,440 gpd

23-26 = 8640 gpd

27-30 = 8820 gpd

reported to Joe Ewalt

2-11-2000 1 hr  
checked plant  
added chlorine  
all looks good.

2-15-2000 1 hr  
plant full of water  
too much rain  
Solids in aeration  
basin washed away  
We need 2 pumps at  
effluent discharge  
We had 2 inches rain  
over weekend  
286.0 hr. meter  
Called D.O.W.

2-18-00 1 hr  
checked plant  
still washing out  
still raining  
1-2 inches in 4 hrs

2-21-00 1 hr  
rain  
washing out  
called D.O.W.

~~2-21-00~~

2-24-2000 2 hrs  
 387.8 hr meter  
 Checked everything  
 Washed down  
 Scraped walls  
 cleaned up all the  
 sludge off of gravel that  
 had overflowed it was  
 dried.  
 added chlorine  
 No sludge in aeration  
 Sludge in creek.

2-28-2000 398.4 hr meter  
 checked plant  
 Washed down 1 hr  
 Scraped clarifier  
 added chlorine  
 called about no pay

### February Flow

1-2	11,250
3-6	9684
7-9	16308
10-14	18720
15-18	9360
19-23	22,230
24-25	17,370
26-27	9540
Total for month 406170	

March 5, 2000 1.5hr  
425.4 hr. Meter  
washed down  
low solids in aeration  
basin - some are starting  
to build back -  
very light tan  
Scraped clarifier.

March 7, 2000  
I called about not  
receiving pay for  
January  
Also told them we  
need garbage pickup  
talked to Heidi

March 9, 2000 1 hr  
Scraped clarifier  
washed down  
added chlorine 2 Tabs  
aeration basin still  
light on solids

3-13-00 1hr  
 sprayed all of plant  
 added chlorine  
 scraped clarifier

3-14-00 1-5 hr  
 low meter 464.7  
 added chlorine  
 scraped clarifier  
 washed down  
 Solids still low but  
 getting better

3-17-00 2 hrs  
 washed down  
 scraped walls of clarifier  
 then used brush  
 added chlorine  
 starting to look better  
 cleaned bar screen

3-21-00 2 hrs  
 546.8 hr. meter  
 Wash down  
 cleaned bar screen  
 scraped walls  
 dipped screen  
 added 5 chlorine Tabs

3-22-00 1.5 hr  
554.4 hour meter  
cleaned bar screen  
had to scrape walls  
of clarifier several times  
washed down  
grabbed fecal coliform  
sample for Fouser

3-27-00 2 hours  
572.1 hour meter  
cleaned bar screen  
scraped walls & cleaned  
with brush  
washed down  
solids still low in  
aeration basin  
some heavy sludge coming  
to top of clarifier

3-28-00 1.5 hr  
584.9 hour meter  
cleaned bar screen  
washed down  
scraped clarifier  
added 4 chlorine tabs  
dipped scum  
effluent hazy

March 31, 2000 2 hrs  
 cleaned bar screen  
 Scraped clarifier 3 times  
 washed down  
 dipped screen  
 added chlorine  
 592.1 hour meter

Went back in the  
 afternoon  
 collected a Fecal Sample  
 took to Fousers  
 drive time + sample 2 hrs  
 delivery  
 sample collection 1 hr

April 2, 2000  
 checked plant Raining

4-5-00  
 620.6 hour meter  
 cleaned bar screen  
 scraped clarifier  
 washed down  
 dipped screen  
 added 10 chlorine tabs  
 the chlorine tablets  
 dissolve too fast

4-14-00

670.1 hour meter  
added 5 chlorine tabs  
cleaned bar screen  
scraped wet well  
washed down

4-16-00

cleaned bar screen  
washed down  
added chlorine  
effluent OK

4-18-00

washed down  
added chlorine  
all OK

4-20-00 698.6 hr. meter  
Added 5 chlorine tablets  
cleaned bar screen  
washed down  
Effluent looks better  
Sample is out up

4-24-00

715.1 hour meter  
added 8 chlorine tabs  
put five in the tube  
dipped screen

4-27-00

hour meter 729.4

added 12 chlorine tabs

Ellen Fouser called said

we were out on BOD.

NH<sub>3</sub>N not done yet

stopped again to check chlorine

4-28-00

734.1 hour meter

added 12 tabs

dipped scum

washed down

Fouser picked up another  
sample

4-30-2000

742.6 hour meter

all the chlorine tablets

have dissolved. These

are not any good will

not last

added 20 tablets

wee-eat + sprayed

weed killer

dipped scum

washed down

scraped Clarifier

May 1, 2000

Talked to Barbara Risk she said

Joe Grenville was

turning Cedarbrook

over to legal services

I called Joe Ewalt let

him know also asked

him to order more

chlorine tablets specifically

for a WTP.

Asked for my pay

again.

I called Fouser -

the fiscal of 4-28-00

was less than 10

April Flow

3-31 / 4-4 10260

4-5 / 4-9 10188

4-10 / 4-13 9540

4-14 / 4-19 8550

4-20 / 4-23 7434

4-24 / 4-26 8586

4-27 8460

4-28 / 4-29 7650

5-2-2000

752.8 hour meter  
added chlorine  
washed down  
dipped screen

5-4-00

762.1 hour meter  
added chlorine  
washed down  
dipped screen

May 6, 2000

771.4 hour meter  
added chlorine  
Scraped clarifier  
washed down

May 8, 2000

780.1 hour meter  
Washed down  
added chlorine

May 10, 2000

788.6 hour meter  
washed down  
Scraped clarifier  
added chlorine

May 12, 2000  
798.0 hour meter  
scraped chlorine walls  
added 14 chlorine tabs  
dipped scum out  
used brush on walls  
called about not  
getting pay again

May 14, 2000  
807.8 hour meter  
No chlorine in trough  
Added 12 tablets  
washed down

May 15, 2000  
814.3 hour meter  
washed down  
added 8 chlorine tablets

Barbara Risk called  
said they had received  
complaints of odor  
I covered all waste  
~~containers~~ containers  
with plastic -  
I called Joe Ewalt  
told him of the problem  
I changed the timer  
Set it up to run  
A constantly

I could not smell  
any thing -

5-17-2000

819.0 hour meter

washed down

Scraped clarifier  
added chlorine tabs

Called about pay again

5-18-00

820.9 hour meter

went over to check on

odor again - I could

not smell anything

got different chlorine  
tablets

washed down

dipped scum

May 20, 2000

826.9 hour meter

washed down

added chlorine

dipped scum out

changed timer again

Called about check again

5-22-00

845.0 hour meter  
washed down  
dipped screen  
added chlorine

May 24, 2000.

added chlorine  
grabbed a sample  
for fecal  
washed down

May 25, 2000

Called about pay  
check AGAIN.

May 26, 2000

864.0 hour meter  
added chlorine  
washed down  
Scraped clarifier  
dipped screen  
adjusted RAS a little

May 29, 2000

875.0 hour meter  
washed down.  
added chlorine

5-31-00

washed down  
added 12 chlorine tabs

## May Flow

1 -	9180
2-3	8370
4-5	8370
6-7	7830
8-9	7650
10-11	8460
12-13	8820
14	11170
15-16	4230
17	3420
18-19	7110
20-21	16290
22-25	8550
26-28	7139
29-30	7200

June 1, 2000

889.0 hour meter

Washed down

added chlorine

6-2-00

893.1 hour meter

Washed down

Added chlorine

Had Thornton clean

out Cl<sub>2</sub> Basin, Scum

basin, took out approx.

2000 gals.

6-5-00

Washed down

added chlorine

I think something

is wrong with meter

or pump too many

hours Pentine

float could be stuck

or sticking

6-8-00

966.3 Hour meter

Washed down

Scraped clarifier  
added chlorine

6-12-00

Washed down

added chlorine

pulled weeds

6-14-00

993.9 Hour meter

Washed down

added chlorine

6-16-00

Washed down

Scraped clarifier

added chlorine

6-19-00

Washed down

Scraped clarifier

added chlorine

1018.0 Hour meter

6-22-00  
1032.2 hour meter  
washed down  
added chlorine tabs  
looks ok

6-25-00  
1044.8 hour meter  
washed down  
cleaned screen  
added chlorine  
will need to pump  
out soon

6-28-00  
1062.1 hour meter  
washed down  
added 12 chlorine tablets  
scraped walls

6-30-00  
1066.5 hour meter  
washed down  
added chlorine  
dipped screen

7-3-2000

1075.6 hour meter  
added 8 chlorine tablets  
Washed down  
Scraped clarifier

7-5-00

Heavy Rain  
1083.0 hour meter

7-7-00

Washed down  
added chlorine  
Will set up to pump  
sludge Monday

7-10-00

1090.5 hour meter  
added chlorine  
Washed down  
Cleaned bar screen  
Had Thornton pump  
out scum area  
chlorine contact basin  
took out approx 200gals

7-13-00

1122.0 four meter

Washed down

added chlorine

cleaned bar screen

7-17-00

1132.1 four meter

Washed down

Added chlorine

Scraped clarifier

pulled weeds

7-19-00

Washed down

dipped screen

added chlorine

eff looks good

7-21-00

Washed down

Added chlorine tablets

Scraped walls

dipped screen

7-24-00

1156.4 hour meter  
 added chlorine tablets (8)  
 dipped scum  
 washed down  
 got dead frog out of  
 chlorine contact basin  
 called about check again

7-26-00

washed down  
 added 8 chlorine tablets  
 scraped clarifier walls  
 dipped scum

7-28-00

1161.3 hour meter  
 washed down  
 dipped scum  
 added 12 chlorine tabs

7-31-00

1163.8 hour meter  
 washed down  
 added 6 chlorine tabs  
 scraped clarifier

August 1

Washed down

Cleaned Screen

Dipped Scum out

Added Chlorine tabs

effluent looked good

August 4

Washed down

Cleaned screen

dipped Scum

added Chlorine

Called Joe

Sampler was set up

11 93.7 hours meter

August 7

Checked plant - Sampler

was still set up

Called Joe - Joe

Said Sampler was set

upon Sunday still

did not was down because

of sampler - Added chlorine

August 9

Washed down

Scraped clarifier walls

dipped scum

Cleaned bar screen

August 11  
 Washed down  
 cleaned screen  
 added chlorine tablets  
 Sprayed weed killer  
 need to get more to  
 finish  
 Dipped scum out

August 14  
 1225.6 hour meter  
 Washed down  
 dipped scum  
 added 3 tabs.  
 called Thornton to  
 pump out plant.  
 He will do it tomorrow

August 15 -  
 Had Thornton clean  
 out scum - cleaned out  
 chlorine contact basin  
 all together took out  
 approx 2000 gallons  
 Washed down  
 cleaned bar screen  
 added chlorine tabs  
 Sprayed weed killer  
 all around fence  
 1230.1 hour meter



**AquaSource**

A DQE Company

1601 Greentree Court  
Clarksville, IN 47129

Facsimile **RECEIVED**

OCT 03 2000

R.A. WILLIAMS CO., INC.

Date 10/2/00  
TO DARREN HENRY

Company R.A. Williams Const.  
Telephone  
Facsimile 859-263-5065  
Total Pages 5

From JOE F EWALT  
Telephone (812) 284-0090  
812-285-6978  
Fax (812) 284-0095

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added chlorine tabs

we  
se  
a

Fri 9-1-00

checked plant  
washed down  
added chlorine

Mon  
Ch  
fu  
C  
it

Sun 9-3-00

washed down  
added chlorine  
pump does not seem  
to be right  
will call Joe

9-  
fu  
Fi  
to

9-4-00 ??

Thornton look out 200 gals

wed

Ch  
at  
Wat  
D  
con

9-6-00 - - 9-7-00

wed

pump not working  
called Joe  
he called back on  
9-7 told me they sent  
someone over to fix it  
& there was nothing wrong  
with it I reported it  
to D.O.W

thur 9-  
got  
it  
to

Jan 7-10-00

Checked plant  
Washed down  
Scraped walls  
added chlorine tabs

Mon 9-11-00

Checked plant  
pump messing up again  
could not wash down  
it is a mess

9-4-00

pumped out cl<sub>2</sub> basin  
& scum, cleaned off  
top of clarifier

seen

wed 9-13-00

Checked plant  
at 7:00 pm full of  
water over weir  
I tried to call Joe  
could not reach him

2000 gals

Thur 9-14-00

got hold of Joe  
He called Barbara Risk  
to report problem

on  
and  
it  
long  
it

Fri

9-15-00

checked plant  
still full over weirs  
I have called Joe  
again about this  
nothing can be done  
I called Barbara Risk  
again.

9-20-00 15413

pump has finally  
been replaced  
washed down  
Scraped side of clarifier  
added chlorine

9-21-00

looks good  
washed down  
added chlorine

9-24-00

washed down  
added chlorine

9-25-00 1551.6

raining -  
eff looks good  
add chlorine  
I question the hour meter  
reading

9-26-00 1554.9

line between manhole  
& commutor stopped up  
could not unstop -  
By passing onto ground  
Called Joe Ewalt to  
inform him. Notified  
D.O. w of Bypass - Barbara  
Risk was not in. Talked  
to Debra  
Effluent not going out.

9-30-00 1565.1

Effluent ok  
Swell may be stopped  
up some - does not  
look completely clear  
added chlorine

ave flow 13845 gal  
I question hour meter

KENTUCKY CLIMATE CENTER  
DEPARTMENT OF GEOGRAPHY AND GEOLOGY  
WESTERN KENTUCKY UNIVERSITY

STATION: CYNTHIANA\_2, KY (Station ID: 151998)

Year	Mo	Dy	Precip- itation (in)	Low (F)	High (F)	Mean (F)
2000	01	01	0.00	25	56	41
2000	01	02	0.50	33	61	47
2000	01	03	1.95	53	65	59
2000	01	04	0.54	47	69	58
2000	01	05	0.00	25	47	36
2000	01	06	0.00	22	34	28
2000	01	07	0.00	22	48	35
2000	01	08	0.04	20	47	34
2000	01	09	0.05	36	42	39
2000	01	10	T	38	49	44
2000	01	11	T	32	54	43
2000	01	12	0.00	23	51	37
2000	01	13	0.13	28	59	44
2000	01	14	0.00	18	44	31
2000	01	15	0.00	22	33	28
2000	01	16	0.00	19	52	41
2000	01	17	T	19	56	38
2000	01	18	M	23	33	20
2000	01	19	T	22	30	26
2000	01	20	0.10	16	33	25
2000	01	21	0.00	3	34	19
2000	01	22	M	7	22	15
2000	01	23	0.00	27	27	27
2000	01	24	0.00	8	34	21
2000	01	25	M	2	29	16
2000	01	26	0.00	2	24	13
2000	01	27	0.00	5	25	15
2000	01	28	0.00	3	23	13
2000	01	29	M	4	30	17
2000	01	30	0.00	25	32	29
2000	01	31	0.00	22	34	28
2000	02	01	0.00	22	34	28
2000	02	02	0.00	20	32	26
2000	02	03	0.00	27	40	34
2000	02	04	M	29	35	32
2000	02	05	0.00	18	37	28
2000	02	06	0.00	17	40	29
2000	02	07	0.00	26	51	39
2000	02	08	0.00	20	40	34
2000	02	09	0.00	22	57	40
2000	02	10	T	31	63	47
2000	02	11	0.00	34	56	45
2000	02	12	0.00	34	47	41
2000	02	13	2.00	32	53	43
2000	02	14	0.38	34	52	43
2000	02	15	0.00	33	42	38
2000	02	16	0.00	33	55	44
2000	02	17	0.19	27	45	36
2000	02	18	4.41	36	59	48

2000 02 19	0.00	33	49	41
2000 02 20	0.00	29	43	36
2000 02 21	0.00	35	54	40
2000 02 22	0.17	28	57	43
2000 02 23	T	45	70	58
2000 02 24	0.23	49	69	59
2000 02 25	0.00	48	73	61
2000 02 26	0.00	51	76	64
2000 02 27	0.15	52	66	59
2000 02 28	0.00	29	59	44
2000 03 01	T	39	64	52
2000 03 02	0.00	34	65	50
2000 03 03	0.06	31	53	42
2000 03 04	0.00	34	45	40
2000 03 05	0.00	31	58	45
2000 03 06	0.00	34	68	51
2000 03 07	0.00	36	70	53
2000 03 08	0.00	43	77	60
2000 03 09	T	47	78	63
2000 03 10	0.00	34	75	55
2000 03 11	0.46	30	61	46
2000 03 12	0.00	26	44	35
2000 03 13	0.00	23	45	34
2000 03 14	0.00	31	43	40
2000 03 15	0.00	36	62	49
2000 03 16	1.18	36	70	53
2000 03 17	0.00	30	59	45
2000 03 18	0.00	26	44	35
2000 03 19	1.07	28	55	42
2000 03 20	0.30	41	53	50
2000 03 21	T	43	56	50
2000 03 22	0.00	36	56	46
2000 03 23	0.00	37	63	50
2000 03 24	T	37	68	53
2000 03 25	0.00	54	77	66
2000 03 26	0.00	37	74	56
2000 03 27	0.00	42	68	55
2000 03 28	0.15	34	60	47
2000 03 29	0.00	35	48	42
2000 03 30	0.00	30	57	44
2000 03 31	0.00	23	38	44
2000 04 01	0.00	32	66	49
2000 04 02	0.35	29	74	52
2000 04 03	0.04	56	65	61
2000 04 04	0.61	43	60	52
2000 04 05	T	43	49	46
2000 04 06	0.00	32	59	45
2000 04 07	0.00	40	71	59
2000 04 08	1.19	46	71	59
2000 04 09	0.00	27	48	38
2000 04 10	0.00	27	67	47
2000 04 11	0.25	40	67	54
2000 04 12	0.00	40	58	49
2000 04 13	0.00	35	52	44
2000 04 14	0.00	38	73	56
2000 04 15	0.00	36	71	54
2000 04 16	0.00	46	70	58
2000 04 17	0.32	52	75	64

2000 04 18	0.00	46	62	54
2000 04 19	0.00	46	58	52
2000 04 20	T	53	69	61
2000 04 21	0.09	45	79	62
2000 04 22	T	42	45	44
2000 04 23	0.00	34	61	48
2000 04 24	0.07	34	67	51
2000 04 25	0.00	50	56	53
2000 04 26	0.00	36	68	52
2000 04 27	0.00	14	64	47
2000 04 28	0.00	35	70	53
2000 04 29	0.00	38	71	55
2000 04 30	0.00	39	72	56
2000 05 01	0.10	43	77	60
2000 05 02	0.00	45	77	61
2000 05 03	0.00	44	77	61
2000 05 04	0.00	45	82	64
2000 05 05	0.00	57	82	70
2000 05 06	0.00	57	83	70
2000 05 07	0.00	57	85	71
2000 05 08	T	68	85	77
2000 05 09	0.00	58	85	72
2000 05 10	0.00	48	83	66
2000 05 11	0.00	48	83	66
2000 05 12	0.25	50	86	68
2000 05 13	0.16	65	86	76
2000 05 14	0.00	45	76	61
2000 05 15	T	41	73	57
2000 05 16	0.18	42	75	59
2000 05 17	T	56	80	68
2000 05 18	0.64	57	87	72
2000 05 19	T	57	86	72
2000 05 20	0.00	49	79	64
2000 05 21	0.00	49	70	60
2000 05 22	0.15	50	71	61
2000 05 23	0.05	48	76	62
2000 05 24	0.00	62	75	69
2000 05 25	0.00	67	87	76
2000 05 26	0.00	48	78	63
2000 05 27	1.32	48	78	63
2000 05 28	0.23	64	81	73
2000 05 29	0.00	57	72	65
2000 05 30	0.00	52	76	64
2000 05 31	0.00	52	77	65
2000 06 01	0.00	50	80	73
2000 06 02	0.18	63	89	76
2000 06 03	0.00	58	89	74
2000 06 04	0.07	52	75	64
2000 06 05	0.00	53	79	66
2000 06 06	0.00	46	72	59
2000 06 07	0.00	48	79	63
2000 06 08	0.00	51	84	70
2000 06 09	0.00	52	84	70
2000 06 10	0.00	57	89	73
2000 06 11	0.00	60	90	75
2000 06 12	0.00	61	91	76
2000 06 13	0.00	67	93	80
2000 06 14	0.18	60	91	78
2000 06 15	0.49	67	94	81

2000 06 16	0.00	68	80	74
2000 06 17	1.25	71	87	79
2000 06 18	0.84	70	87	79
2000 06 19	T	63	74	69
2000 06 20	0.07	62	78	70
2000 06 21	0.04	63	86	75
2000 06 22	0.00	67	85	76
2000 06 23	0.00	66	86	76
2000 06 24	0.00	66	86	76
2000 06 25	0.00	67	90	79
2000 06 26	0.30	66	86	76
2000 06 27	0.54	68	86	77
2000 06 28	0.00	67	90	79
2000 06 29	0.00	61	77	69
2000 07 01	0.00	57	80	69
2000 07 02	0.00	58	84	71
2000 07 03	0.21	61	87	74
2000 07 04	0.05	70	89	80
2000 07 05	0.50	71	89	80
2000 07 06	0.06	69	82	76
2000 07 07	0.00	68	86	77
2000 07 08	0.00	58	86	72
2000 07 09	0.00	57	85	71
2000 07 10	1.20	70	90	80
2000 07 11	0.15	72	90	81
2000 07 12	0.00	72	84	78
2000 07 13	0.00	71	84	78
2000 07 14	0.10	65	87	76
2000 07 15	0.00	64	88	76
2000 07 16	0.00	60	90	80
2000 07 17	0.00	62	82	72
2000 07 18	0.03	62	86	74
2000 07 19	1.25	67	84	76
2000 07 20	0.00	58	75	67
2000 07 21	0.04	58	78	68
2000 07 22	0.00	59	80	70
2000 07 23	0.00	58	80	69
2000 07 24	0.00	59	81	70
2000 07 25	0.00	59	81	70
2000 07 26	0.05	60	83	72
2000 07 27	T	65	84	75
2000 07 28	0.38	65	85	75
2000 07 29	0.04	66	85	75
2000 07 30	0.11	66	73	70
2000 07 31	0.00	68	79	74
2000 08 01	M	M	M	M
2000 08 02	M	M	M	M
2000 08 03	M	M	M	M
2000 08 04	M	M	M	M
2000 08 05	M	M	M	M
2000 08 06	M	M	M	M
2000 08 07	M	M	M	M
2000 08 08	M	M	M	M
2000 08 09	M	M	M	M
2000 08 10	M	M	M	M
2000 08 11	M	M	M	M
2000 08 12	M	M	M	M
2000 08 13	M	M	M	M

2000 08 14	M	M	M	M
2000 08 15	M	M	M	M
2000 08 16	M	M	M	M
2000 08 17	M	M	M	M
2000 08 18	M	M	M	M
2000 08 19	M	M	M	M
2000 08 20	M	M	M	M
2000 08 21	M	M	M	M
2000 08 22	M	M	M	M
2000 08 23	M	M	M	M
2000 08 24	M	M	M	M
2000 08 25	M	M	M	M
2000 08 26	M	M	M	M
2000 08 27	M	M	M	M
2000 08 28	M	M	M	M
2000 08 29	M	M	M	M
2000 08 30	M	M	M	M
2000 08 31	M	M	M	M
2000 09 01	M	M	M	M
2000 09 02	M	M	M	M
2000 09 03	M	M	M	M
2000 09 04	M	M	M	M
2000 09 05	M	M	M	M
2000 09 06	M	M	M	M
2000 09 07	M	M	M	M
2000 09 08	M	M	M	M
2000 09 09	M	M	M	M
2000 09 10	M	M	M	M
2000 09 11	M	M	M	M
2000 09 12	M	M	M	M
2000 09 13	M	M	M	M
2000 09 14	M	M	M	M
2000 09 15	M	M	M	M
2000 09 16	M	M	M	M
2000 09 17	M	M	M	M
2000 09 18	M	M	M	M
2000 09 19	M	M	M	M
2000 09 20	M	M	M	M
2000 09 21	M	M	M	M
2000 09 22	M	M	M	M
2000 09 23	M	M	M	M
2000 09 24	M	65	83	74
2000 09 25	M	M	M	M
2000 09 26	M	M	M	M
2000 09 27	M	M	M	M
2000 09 28	M	M	M	M
2000 09 29	M	M	M	M
2000 09 30	M	M	M	M
2000 10 01	M	M	M	M
2000 10 02	M	M	M	M
2000 10 03	M	M	M	M
2000 10 04	M	M	M	M
2000 10 05	M	M	M	M
2000 10 06	M	M	M	M
2000 10 07	M	M	M	M
2000 10 08	M	M	M	M
2000 10 09	M	M	M	M
2000 10 10	M	M	M	M
2000 10 11	M	M	M	M

2000 10 12	M	M	M	M
2000 10 13	M	M	M	M
2000 10 14	M	M	M	M
2000 10 15	M	M	M	M
2000 10 16	M	M	M	M
2000 10 17	M	M	M	M
2000 10 18	M	M	M	M
Sum	M			
Average		43.7	66.7	55.4

M = missing, e = estimated, T = trace  
P - preliminary data, F final data from NCDC





# SHIELD Environmental Associates, Inc.

## Manhole Inspection Checklist

### Cedarbrook Subdivision

Subsystem: Maple Court Manhole Number: Manhole #1  
 Size: (4') 6' 8' 10' Inspector: KM Regan  
 Date: 10/19/00 Time: 0930  
 Weather Conditions: Sunny & dry Temperature: Mid-60s (F)

Cover:  Solid  
 Ventilated  
 Lock  
 Bolted

Frame:  Low  
 Shifted  
 Crooked  
 Loose

Riser:  Precast  
 Block  
 Brick  
 Poor Joints  
 Leaking

Corbel and Barrel:  Precast  
 Block  
 Brick  
 Poor Joints  
 Leaking

Bench:  Poured  
 Brick  
 Other  
 Poor  
 Missing  
 Dirty (Explain)

Channel:  Poured  
 Brick  
 Other  
 Poor  
 Missing  
 Dirty (Explain)  
4.76' Depth to invert from top of ring

Main Line Up Stream to MH ###: NA Size  
 Depth of Flow  
 Material  
 Crooked  
 Obstructed  
 Dirty (Explain)

Main Line Down Stream to MH 8: 8" Size  
1/3 Depth of Flow  
 Material  
 Crooked  
 Obstructed  
 Dirty (Explain)

## SHIELD Environmental Associates, Inc.

### Manhole Inspection Checklist

#### Cedarbrook Subdivision

Subsystem: Maple Court Manhole Number: Manhole #1

Side Line Up Stream to MH ### <u>NA</u> Size _____ _____ Depth of Flow _____ _____ Material _____ _____ Crooked _____ _____ Obstructed _____ _____ Dirty (Explain) _____	Side Line Down Stream to MH ### <u>NA</u> Size _____ _____ Depth of Flow _____ _____ Material _____ _____ Crooked _____ _____ Obstructed _____ _____ Dirty (Explain) _____
--	--

Manholes: 96.34' Top of Ring Elevation  
91.58' Invert Elevation

Steps: \_\_\_\_\_ Broken  
X Missing  
 \_\_\_\_\_ Worn

Comments: There are no visible cracks or other failures; ring and lid paved over slightly and somewhat loosely fitting; Slight sedimentation located on the bottom of the manhole out of the channel. Top of manhole ring recessed in pavement forming a depression around the manhole lid.

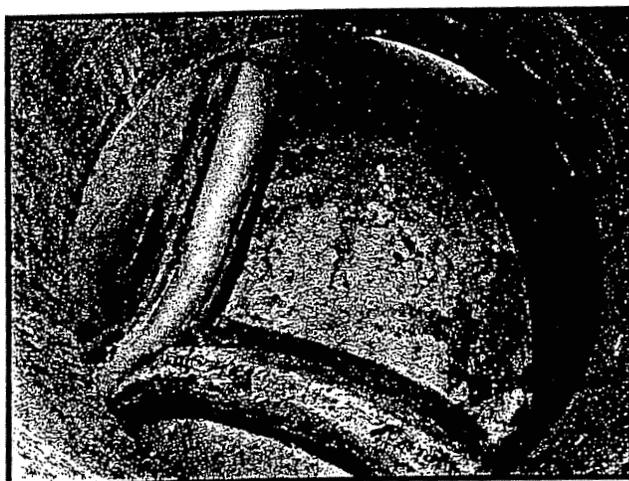
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**SHIELD Environmental Associates, Inc.**  
**Manhole Inspection Checklist**  
**Cedarbrook Subdivision**

Subsystem: Elm Court Manhole Number: Manhole #2  
 Size: (4) 6' 8' 10' Inspector: KM Regan  
 Date: 10/19/00 Time: 1000  
 Weather Conditions: Sunny & dry Temperature: Mid-60s (F)

Cover:	<u>X</u> Solid	Frame:	<u>X</u> Low
	<u>      </u> Ventilated		<u>      </u> Shifted
	<u>      </u> Lock		<u>      </u> Crooked
	<u>      </u> Bolted		<u>X</u> Loose
Riser:	<u>X</u> Precast	Corbel and Barrel:	<u>X</u> Precast
	<u>      </u> Block		<u>      </u> Block
	<u>      </u> Brick		<u>      </u> Brick
	<u>      </u> Poor Joints		<u>      </u> Poor Joints
	<u>      </u> Leaking		<u>      </u> Leaking
Bench:	<u>X</u> Poured	Channel:	<u>X</u> Poured
	<u>      </u> Brick		<u>      </u> Brick
	<u>      </u> Other		<u>      </u> Other
	<u>      </u> Poor		<u>      </u> Poor
	<u>      </u> Missing		<u>      </u> Missing
	<u>X</u> Dirty (Explain)		<u>      </u> Dirty (Explain)
			<u>5.24'</u> Depth to invert from top of ring
Main Line Up Stream to MH ###	<u>NA</u> Size	Main Line Down Stream to MH 9	<u>8"</u> Size
	<u>      </u> Depth of Flow		<u>NA</u> Depth of Flow
	<u>      </u> Material		<u>VC</u> Material
	<u>      </u> Crooked		<u>NA</u> Crooked
	<u>      </u> Obstructed		<u>NO</u> Obstructed
	<u>      </u> Dirty (Explain)		<u>      </u> Dirty (Explain)

## SHIELD Environmental Associates, Inc.

### Manhole Inspection Checklist

### Cedarbrook Subdivision

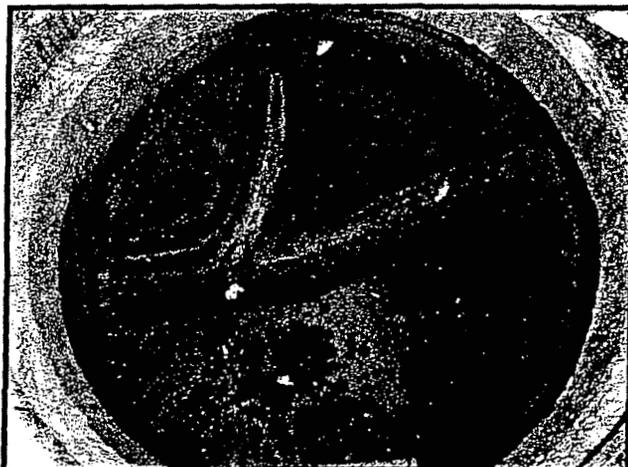
Subsystem: Elm Court Manhole Number: Manhole #2

Side Line Up <u>NA</u> Size Stream to _____ MH ### _____ _____ _____ _____ _____ _____	Side Line <u>NA</u> Size Down Stream _____ to MH ### _____ _____ _____ _____ _____ _____
Depth of Flow	Depth of Flow
Material	Material
Crooked	Crooked
Obstructed	Obstructed
Dirty (Explain)	Dirty (Explain)

Manholes: 107.65' Top of Ring Elevation  
102.41' Invert Elevation

Steps: \_\_\_\_\_ Broken  
 \_\_\_\_\_ Missing  
 \_\_\_\_\_ Worn

Comments: There are no visible cracks or other failures; ring and lid paved over slightly and somewhat loosely fitting;  
Slight sedimentation located on the bottom of the manhole out of the channel. Top of manhole ring recessed in pavement  
forming a depression around the manhole lid.





# SHIELD Environmental Associates, Inc.

## Manhole Inspection Checklist

### Cedarbrook Subdivision

Subsystem: Pine Road Court Manhole Number: Manhole #3  
 Size: (4') 6' 8' 10' Inspector: KM Regan  
 Date: 10/19/00 Time: 1102  
 Weather Conditions: Sunny & dry Temperature: Mid-60s (F)

Cover:	<u>X</u> Solid	Frame:	<u>X</u> Low
	<u>      </u> Ventilated		<u>      </u> Shifted
	<u>      </u> Lock		<u>      </u> Crooked
	<u>      </u> Bolted		<u>X</u> Loose
Riser:	<u>X</u> Precast	Corbel and Barrel:	<u>X</u> Precast
	<u>      </u> Block		<u>      </u> Block
	<u>      </u> Brick		<u>      </u> Brick
	<u>      </u> Poor Joints		<u>      </u> Poor Joints
	<u>      </u> Leaking		<u>      </u> Leaking
Bench:	<u>X</u> Poured	Channel:	<u>X</u> Poured
	<u>      </u> Brick		<u>      </u> Brick
	<u>      </u> Other		<u>      </u> Other
	<u>      </u> Poor		<u>      </u> Poor
	<u>      </u> Missing		<u>      </u> Missing
	<u>      </u> Dirty (Explain)		<u>      </u> Dirty (Explain)
Main Line Up Stream to MH ###	<u>NA</u> Size	Main Line Down Stream to MH 4	<u>8"</u> Size
	<u>      </u> Depth of Flow		<u>NA</u> Depth of Flow
	<u>      </u> Material		<u>VC</u> Material
	<u>      </u> Crooked		<u>NA</u> Crooked
	<u>      </u> Obstructed		<u>NO</u> Obstructed
	<u>      </u> Dirty (Explain)		<u>      </u> Dirty (Explain)

# SHIELD Environmental Associates, Inc.

## Manhole Inspection Checklist

### Cedarbrook Subdivision

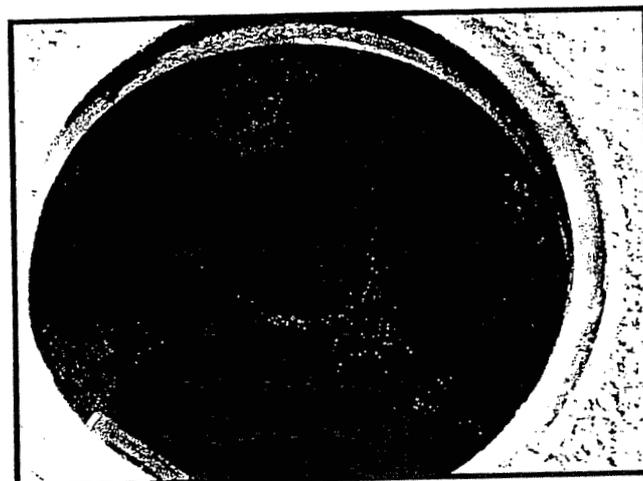
Subsystem:           Pine Road Court           Manhole Number:           Manhole #3          

Side Line Up Stream to MH ###	NA	Size  Depth of Flow  Material  Crooked  Obstructed  Dirty (Explain)		Side Line Down Stream to MH ###	NA	Size  Depth of Flow  Material  Crooked  Obstructed  Dirty (Explain)
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Manholes:           113.22'           Top of Ring Elevation  
          108.32'           Invert Elevation

Steps:            Broken  
           Missing  
           Worn

Comments:           There are no visible cracks or other failures; ring and lid paved over slightly and somewhat loosely fitting;  
Top of manhole ring recessed in pavement forming a depression around the manhole cover.





# SHIELD Environmental Associates, Inc.

## Manhole Inspection Checklist

### Cedarbrook Subdivision

Subsystem: Evergreen and Pine Road Manhole Number: Manhole #4  
 Size: (4') 6' 8' 10' Inspector: KM Regan  
 Date: 10/19/00 Time: 1038  
 Weather Conditions: Sunny & dry Temperature: Mid-60s (F)

Cover: X Solid  
 \_\_\_\_\_ Ventilated  
 \_\_\_\_\_ Lock  
 \_\_\_\_\_ Bolted

Frame: \_\_\_\_\_ Low  
 \_\_\_\_\_ Shifted  
 \_\_\_\_\_ Crooked  
X Loose

Riser: X Precast  
 \_\_\_\_\_ Block  
 \_\_\_\_\_ Brick  
 \_\_\_\_\_ Poor Joints  
 \_\_\_\_\_ Leaking

Corbel and Barrel: X Precast  
 \_\_\_\_\_ Block  
 \_\_\_\_\_ Brick  
 \_\_\_\_\_ Poor Joints  
 \_\_\_\_\_ Leaking

Bench: X Poured  
 \_\_\_\_\_ Brick  
 \_\_\_\_\_ Other  
 \_\_\_\_\_ Poor  
 \_\_\_\_\_ Missing  
X Dirty (Explain)

Channel: X Poured  
 \_\_\_\_\_ Brick  
 \_\_\_\_\_ Other  
 \_\_\_\_\_ Poor  
 \_\_\_\_\_ Missing  
 \_\_\_\_\_ Dirty (Explain)  
3.53' Depth to invert from top of ring

Main Line Up Stream to MH ###: NA Size  
 \_\_\_\_\_ Depth of Flow  
 \_\_\_\_\_ Material  
 \_\_\_\_\_ Crooked  
 \_\_\_\_\_ Obstructed  
 \_\_\_\_\_ Dirty (Explain)

Main Line Down Stream to MH 9: 8" Size  
1/3 Depth of Flow  
VC Material  
NA Crooked  
NO Obstructed  
 \_\_\_\_\_ Dirty (Explain)

**SHIELD Environmental Associates, Inc.**  
 Manhole Inspection Checklist  
 Cedarbrook Subdivision



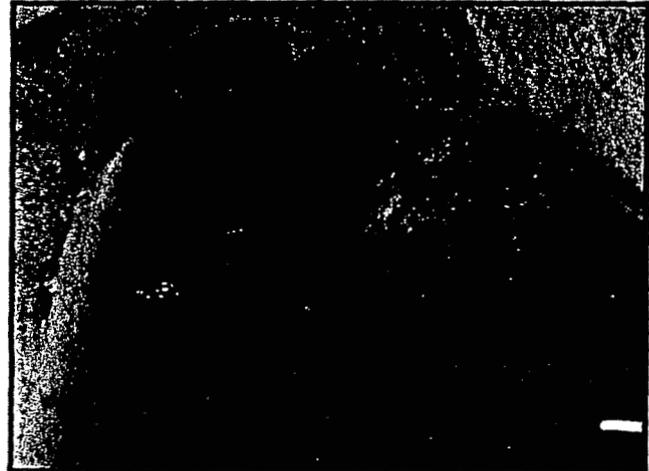
Subsystem: Evergreen and Pine Road Manhole Number: Manhole #4

Side Line Up	<u>NA</u>	Size	Side Line	<u>NA</u>	Size
Stream to		Depth of Flow	Down Stream		Depth of Flow
MH ###			to MH ###		
		Material			Material
		Crooked			Crooked
		Obstructed			Obstructed
		Dirty (Explain)			Dirty (Explain)

Manholes: 110.51' Top of Ring Elevation  
106.98' Invert Elevation

Steps:        Broken  
  X   Missing  
       Worn

Comments: There are no visible cracks or other failures; slight corrosion of ring and lid; slight sedimentation located on the bottom of the manhole out of the channel.





SHIELD Environmental Associates, Inc.
Manhole Inspection Checklist
Cedarbrook Subdivision

Subsystem: End of Pine Road Manhole Number: Manhole #5
Size: (4') 6' 8' 10' Inspector: KM Regan
Date: 10/19/00 Time: 1300
Weather Conditions: Sunny & dry Temperature: Mid-60s (F)

Cover: [X] Solid Frame: [ ] Low
[ ] Ventilated [ ] Shifted
[ ] Lock [ ] Crooked
[ ] Bolted [X] Loose
Riser: [X] Precast Corbel and Barrel: [X] Precast
[ ] Block [ ] Block
[ ] Brick [ ] Brick
[ ] Poor Joints [ ] Poor Joints
[ ] Leaking [ ] Leaking
Bench: [X] Poured Channel: [X] Poured
[ ] Brick [ ] Brick
[ ] Other [ ] Other
[ ] Poor [ ] Poor
[ ] Missing [ ] Missing
[X] Dirty (Explain) [ ] Dirty (Explain)
5.35' Depth to invert from top of ring
Main Line Up Stream to MH 10: 8" Size, 2/3 Depth of Flow, VC Material, NA Crooked, NO Obstructed, [ ] Dirty (Explain)
Main Line Down Stream to PS: 8" Size, 2/3 Depth of Flow, VC Material, NA Crooked, NO Obstructed, [ ] Dirty (Explain)

**SHIELD Environmental Associates, Inc.**  
 Manhole Inspection Checklist  
 Cedarbrook Subdivision

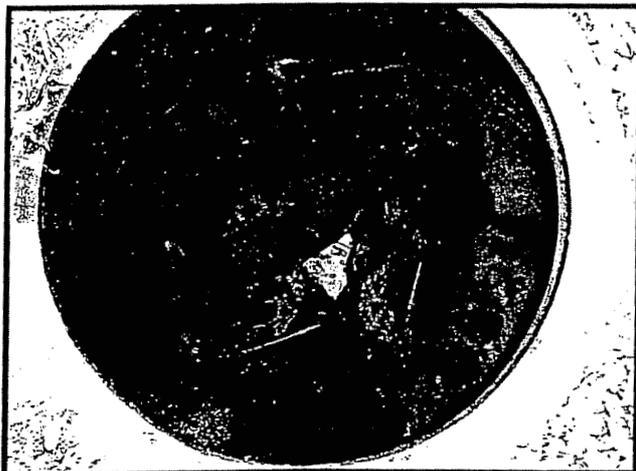
Subsystem: End of Pine Road Manhole Number: Manhole #5

Side Line Up	<u>NA</u>	Size	Side Line	<u>NA</u>	Size
Stream to		Depth of Flow	Down Stream		Depth of Flow
MH ###		Material	to MH ###		Material
		Crooked			Crooked
		Obstructed			Obstructed
		Dirty (Explain)			Dirty (Explain)

Manholes: 96.34' Top of Ring Elevation  
90.99' Invert Elevation

Steps:        Broken  
       Missing  
       Worn

Comments: There are no visible cracks or other failures; slight corrosion of ring and lid; heavy sedimentation located on the bottom of the manhole out of the channel; sticks and non-organic debris is located in the manhole; there is standing water in the channel





# SHIELD Environmental Associates, Inc.

## Manhole Inspection Checklist

### Cedarbrook Subdivision

Subsystem: Entrance to WWTP Manhole Number: Manhole #6  
 Size: (4') 6' 8' 10' Inspector: KM Regan  
 Date: 10/19/00 Time: 1300  
 Weather Conditions: Sunny & dry Temperature: Mid-60s (F)

Cover: X Solid Frame:          Low  
         Ventilated X Shifted  
         Lock X Crooked  
         Bolted X Loose

Riser: X Precast Corbel and Barrel: X Precast  
         Block          Block  
         Brick          Brick  
         Poor Joints          Poor Joints  
         Leaking          Leaking

Bench: X Poured Channel: X Poured  
         Brick          Brick  
         Other          Other  
         Poor          Poor  
         Missing          Missing  
X Dirty (Explain) X Dirty (Explain)  
         2.45' Depth to invert from top of ring

Main Line Up Stream to MH 7	<u>8"</u> Size	Main Line Down Stream to WWTP	<u>8"</u> Size
	<u>2/3</u> Depth of Flow		<u>2/3</u> Depth of Flow
	<u>DI</u> Material		<u>DI</u> Material
	<u>NA</u> Crooked		<u>NA</u> Crooked
	<u>NO</u> Obstructed		<u>NO</u> Obstructed
	<u>        </u> Dirty (Explain)		<u>        </u> Dirty (Explain)

## SHIELD Environmental Associates, Inc.

### Manhole Inspection Checklist

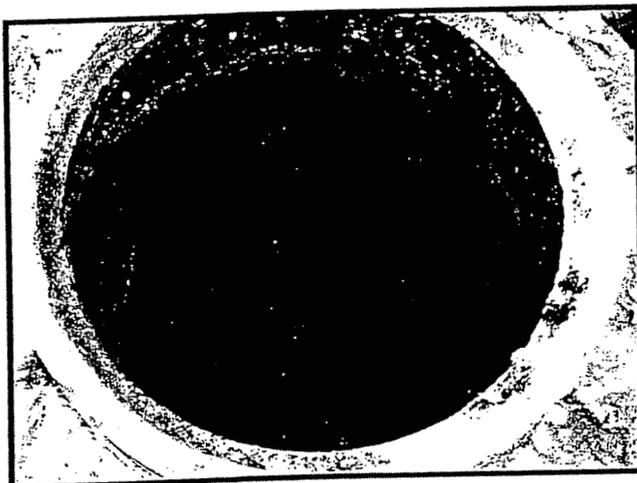
### Cedarbrook Subdivision

Subsystem:	Entrance to WWTP	Manhole Number:	Manhole #6
Side Line Up	<u>NA</u>	Size	Side Line
Stream to		Depth of Flow	Down Stream
MH ###		Material	to MH ###
		Crooked	<u>NA</u>
		Obstructed	
		Dirty (Explain)	

Manholes: 88.63' Top of Ring Elevation  
86.18' Invert Elevation

Steps:        Broken  
  X   Missing  
       Worn

Comments: There are no visible cracks or other failures; slight corrosion of ring and lid; heavy sedimentation located on the bottom of the manhole out of the channel; evidence of surcharge located on ground surrounding manhole



NO PHOTO AVAILABLE



# SHIELD Environmental Associates, Inc.

## Manhole Inspection Checklist

### Cedarbrook Subdivision

Subsystem: Turn Toward WWTP Manhole Number: Manhole #7  
 Size: (4') 6' 8' 10' Inspector: KM Regan  
 Date: 10/19/00 Time: 1328  
 Weather Conditions: Sunny & dry Temperature: Mid-60s (F)

Cover: X Solid Frame:        Low  
       Ventilated        Shifted  
       Lock        Crooked  
       Bolted X Loose

Riser: X Precast Corbel and Barrel: X Precast  
       Block        Block  
       Brick        Brick  
       Poor Joints        Poor Joints  
       Leaking        Leaking

Bench: X Poured Channel: X Poured  
       Brick        Brick  
       Other        Other  
       Poor        Poor  
       Missing        Missing  
X Dirty (Explain) X Dirty (Explain)  
       2.39' Depth to invert from top of ring

Main Line Up Stream to MH 9 8" Size  
1/3 Depth of Flow  
VC Material  
NA Crooked  
NO Obstructed  
       Dirty (Explain)

Main Line Down Stream to 6 8" Size  
1/3 Depth of Flow  
DI Material  
NA Crooked  
NO Obstructed  
       Dirty (Explain)

## SHIELD Environmental Associates, Inc.

### Manhole Inspection Checklist

#### Cedarbrook Subdivision

Subsystem:	Turn Toward WWTP	Manhole Number:	Manhole #7
Side Line Up Stream to MH ###	NA	Size	NA
		Depth of Flow	
		Material	
		Crooked	
		Obstructed	
		Dirty (Explain)	
		Side Line Down Stream to MH ###	
			Depth of Flow
			Material
			Crooked
			Obstructed
			Dirty (Explain)

Manholes: 88.80' Top of Ring Elevation  
86.41' Invert Elevation

Steps:        Broken  
  X   Missing  
       Worn

Comments: There are no visible cracks or other failures; slight corrosion of ring and lid; heavy sedimentation located on the bottom of the manhole out of the channel

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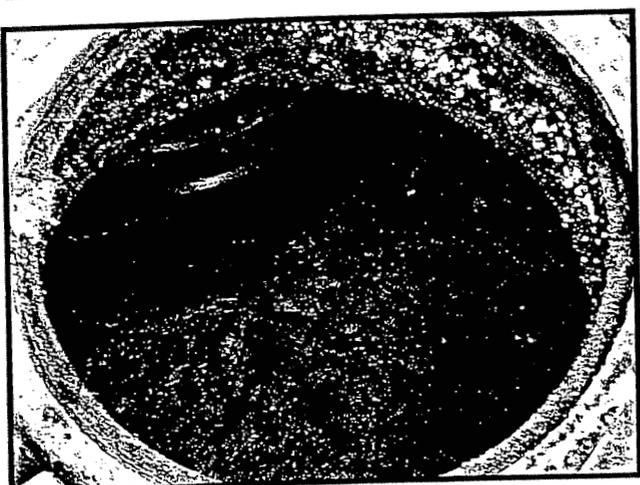
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NO PHOTO AVAILABLE



**SHIELD Environmental Associates, Inc.**  
**Manhole Inspection Checklist**  
**Cedarbrook Subdivision**

Subsystem: Backyard of Lot 4 Manhole Number: Manhole #8  
 Size: (4') 6' 8' 10' Inspector: KM Regan  
 Date: 10/19/00 Time: 1435  
 Weather Conditions: Sunny & dry Temperature: Mid-60s (F)

Cover: X Solid Frame:          Low  
         Ventilated          Shifted  
         Lock          Crooked  
         Bolted X Loose

Riser: X Precast Corbel and Barrel: X Precast  
         Block          Block  
         Brick          Brick  
         Poor Joints          Poor Joints  
         Leaking          Leaking

Bench: X Poured Channel: X Poured  
         Brick          Brick  
         Other          Other  
         Poor          Poor  
         Missing          Missing  
X Dirty (Explain) X Dirty (Explain)  
         4.81' Depth to invert from top of ring

Main Line Up Stream to MH 9	<u>8"</u> Size	Main Line Down Stream to 7	<u>8"</u> Size
	<u>1/3</u> Depth of Flow		<u>1/3</u> Depth of Flow
	<u>VC</u> Material		<u>VC</u> Material
	<u>NA</u> Crooked		<u>NA</u> Crooked
	<u>NO</u> Obstructed		<u>NO</u> Obstructed
	<u>        </u> Dirty (Explain)		<u>        </u> Dirty (Explain)

## SHIELD Environmental Associates, Inc.

### Manhole Inspection Checklist

### Cedarbrook Subdivision

Subsystem:	Backyard of Lot 4	Manhole Number:	Manhole #8
Side Line Up Stream to MH ###	<input type="checkbox"/> NA Size <input type="checkbox"/> Depth of Flow <input type="checkbox"/> Material <input type="checkbox"/> Crooked <input type="checkbox"/> Obstructed <input type="checkbox"/> Dirty (Explain)	Side Line Down Stream to MH ###	<input type="checkbox"/> NA Size <input type="checkbox"/> Depth of Flow <input type="checkbox"/> Material <input type="checkbox"/> Crooked <input type="checkbox"/> Obstructed <input type="checkbox"/> Dirty (Explain)

Manholes:     92.19' Top of Ring Elevation  
                   87.38' Invert Elevation

Steps:          Broken  
                    Missing  
                    Worn

Comments: There are no visible cracks or other failures; slight corrosion of ring and lid; heavy sedimentation located on the bottom of the manhole out of the channel; manhole is in a naturally occurring depression; lid is very poorly seating.

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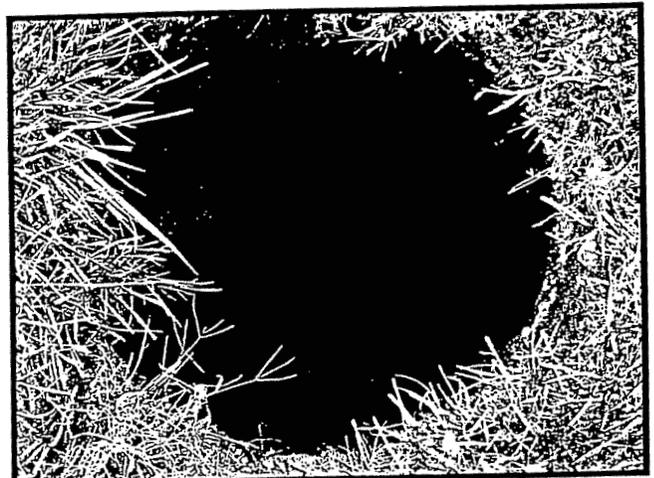
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# SHIELD Environmental Associates, Inc.

## Manhole Inspection Checklist

### Cedarbrook Subdivision

Subsystem: Backyard Lot 8 Manhole Number: Manhole #9  
 Size: (4') 6' 8' 10' Inspector: KM Regan  
 Date: 10/19/00 Time: 1510  
 Weather Conditions: Sunny & dry Temperature: Mid-60s (F)

Cover:	<u>X</u> Solid	Frame:	<u>      </u> Low
	<u>      </u> Ventilated		<u>      </u> Shifted
	<u>      </u> Lock		<u>      </u> Crooked
	<u>      </u> Bolted		<u>X</u> Loose
Riser:	<u>X</u> Precast	Corbel and Barrel:	<u>X</u> Precast
	<u>      </u> Block		<u>      </u> Block
	<u>      </u> Brick		<u>      </u> Brick
	<u>      </u> Poor Joints		<u>      </u> Poor Joints
	<u>      </u> Leaking		<u>      </u> Leaking
Bench:	<u>X</u> Poured	Channel:	<u>X</u> Poured
	<u>      </u> Brick		<u>      </u> Brick
	<u>      </u> Other		<u>      </u> Other
	<u>      </u> Poor		<u>      </u> Poor
	<u>      </u> Missing		<u>      </u> Missing
	<u>X</u> Dirty (Explain)		<u>X</u> Dirty (Explain)
			<u>5.94'</u> Depth to invert from top of ring
Main Line Up Stream to MH 4	<u>8"</u> Size	Main Line Down Stream to 8	<u>8"</u> Size
	<u>1/3</u> Depth of Flow		<u>1/3</u> Depth of Flow
	<u>VC</u> Material		<u>VC</u> Material
	<u>NA</u> Crooked		<u>NA</u> Crooked
	<u>NO</u> Obstructed		<u>NO</u> Obstructed
	<u>      </u> Dirty (Explain)		<u>      </u> Dirty (Explain)

# SHIELD Environmental Associates, Inc.

## Manhole Inspection Checklist

### Cedarbrook Subdivision

Subsystem:	Backyard Lot#8	Manhole Number:	Manhole #9
Side Line Up Stream to MH ###	<input type="checkbox"/> NA Size <input type="checkbox"/> Depth of Flow <input type="checkbox"/> Material <input type="checkbox"/> Crooked <input type="checkbox"/> Obstructed <input type="checkbox"/> Dirty (Explain)	Side Line Down Stream to MH ###	<input type="checkbox"/> NA Size <input type="checkbox"/> Depth of Flow <input type="checkbox"/> Material <input type="checkbox"/> Crooked <input type="checkbox"/> Obstructed <input type="checkbox"/> Dirty (Explain)

Manholes: 94.56' Top of Ring Elevation  
88.62' Invert Elevation

Steps:  Broken  
 Missing  
 Worn

Comments: There are no visible cracks or other failures; slight corrosion of ring and lid; slight sedimentation located on the bottom of the manhole out of the channel

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SHIELD Environmental Associates, Inc.
Manhole Inspection Checklist
Cedarbrook Subdivision

Subsystem: End of Evergreen Road Manhole Number: Manhole #10
Size: (4') 6' 8' 10' Inspector: KM Regan
Date: 10/19/00 Time: 1600
Weather Conditions: Sunny & dry Temperature: Mid-60s (F)

Cover: [X] Solid [ ] Ventilated [ ] Lock [ ] Bolted
Frame: [ ] Low [ ] Shifted [ ] Crooked [X] Loose

Riser: [X] Precast [ ] Block [ ] Brick [ ] Poor Joints [ ] Leaking
Corbel and Barrel: [X] Precast [ ] Block [ ] Brick [ ] Poor Joints [X] Leaking

Bench: [X] Poured [ ] Brick [ ] Other [ ] Poor [X] Missing [X] Dirty (Explain)
Channel: [X] Poured [ ] Brick [ ] Other [ ] Poor [ ] Missing [X] Dirty (Explain)
4.89' Depth to invert from top of ring

Main Line Up Stream to MH ###: [NA] Size [ ] Depth of Flow [ ] Material [ ] Crooked [ ] Obstructed [ ] Dirty (Explain)
Main Line Down Stream to 5: [8"] Size [2/3] Depth of Flow [VC] Material [NA] Crooked [NO] Obstructed [ ] Dirty (Explain)

**SHIELD Environmental Associates, Inc.**  
 Manhole Inspection Checklist  
 Cedarbrook Subdivision

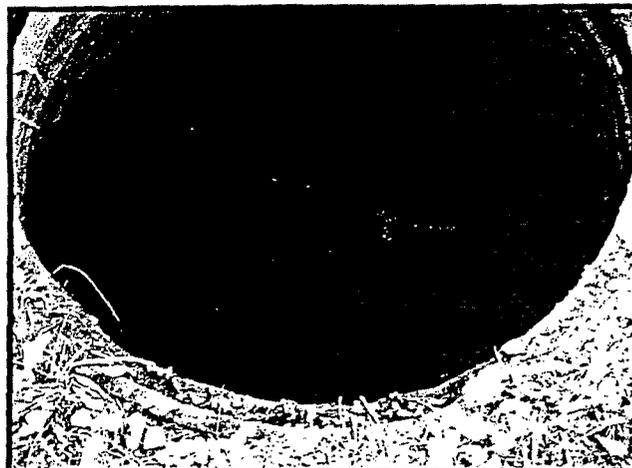
Subsystem: End of Evergreen Road Manhole Number: Manhole #10

Side Line Up	<u>NA</u>	Size	Side Line	<u>NA</u>	Size
Stream to		Depth of Flow	Down Stream		Depth of Flow
MH ###		Material	to MH ###		Material
		Crooked			Crooked
		Obstructed			Obstructed
		Dirty (Explain)			Dirty (Explain)

Manholes: 96.62' Top of Ring Elevation  
91.73' Invert Elevation

Steps:        Broken  
  X   Missing  
       Worn

Comments: Large crack on south side of barrel; slight corrosion of ring and lid; heavy sedimentation located on the bottom of the manhole out of the channel; sticks, roots and non-organic debris is located in the manhole; there is stand-water in the channel







SHIELD Environmental Associates, Inc.

Sheet 1 of 2

Smoke Testing Data Sheet  
Cedarbrook Subdivision

General Information:

Subsystem: Line 8 Date Tested: 11/16/00

Time of Day: 1006

Inspected by: KM Regan/KG Mills

Present Weather Conditions: Windy and cold/Mid-20s/Dry

Previous Weather Conditions: Windy and cold/Mid-20s/Dry

Access to Manhole: Good X Poor \_\_\_\_\_

Access for Cleaning/TV: Good X Poor \_\_\_\_\_

Number of Manhole Reaches Tested: 1

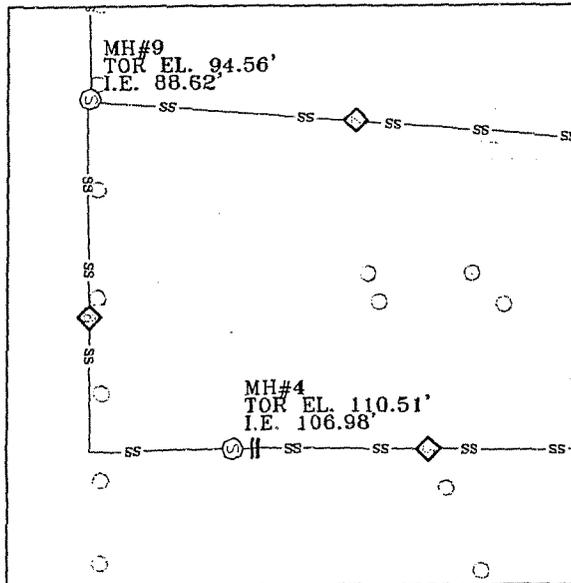
Total Footage Inspected: 356'

Location of Smoke Blower: MH Manhole #4

Special Problems/Comments:

Smoke issuance from ground on southeast side of manhole 4; smoke issuance from ground approx. 150 feet from manhole 4 near telephone pole. See photos page C-3

Note: Draw the location of each applicable manhole and the location of each sewer plug installed.





Smoke Testing Data Sheet, Cont.

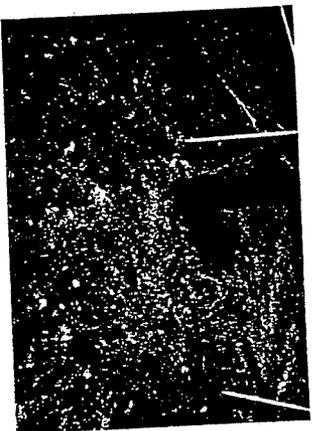
Leak Location/Description

- 1) Smoke Intensity
  - a) Light
  - b) Medium
  - c) Heavy
- 2) Trunk Line
  - a) Between Manhole
  - b) Catch Basin
  - c) Storm Sewer X-Connection
  - d) Other (below)
- 3) Manhole
  - a) Manhole Ring
  - b) Manhole Cover
  - c) Crack in Wall
  - d) Other (below)
- 4) Service Connection
  - a) Faulty Connection
  - b) Service from Trunk/House
  - c) Faulty Cleanout
  - d) Area/Yard Drain
  - e) Roof Leader
  - f) Smoke in Building
  - g) No Smoke from Vent
  - h) Other (below)

DESCRIPTION	SMOKE		TRUNK LINE		MH		SERVICE CONNECTION		ADDRESS
	LOCATION DESCRIPTION	INTENSITY	FEET FROM MH	TO MH	MANHOLE NUMBER	FEET FROM TRUNK LINE			
Manhole # 4 – Smoke from ground southeast side	A	N/A			4	N/A		Backyard lot #9	
Smoke from ground near telephone pole	A	150'	4		NA	NA			



Smoke Issuance Near Manhole 4



Smoke Issuance From Ground  
Backyard Lot 9



SHIELD Environmental Associates, Inc.

Sheet 1 of 2

Smoke Testing Data Sheet  
Cedarbrook Subdivision

General Information:

Subsystem: Line 4 Date Tested: 11/16/00

Time of Day: 1108

Inspected by: KM Regan/KG Mills

Present Weather Conditions: Windy and cold/Mid-20s/Dry

Previous Weather Conditions: Windy and cold/Mid-20s/Dry

Access to Manhole: Good X Poor     

Access for Cleaning/TV: Good X Poor     

Number of Manhole Reaches Tested: 1

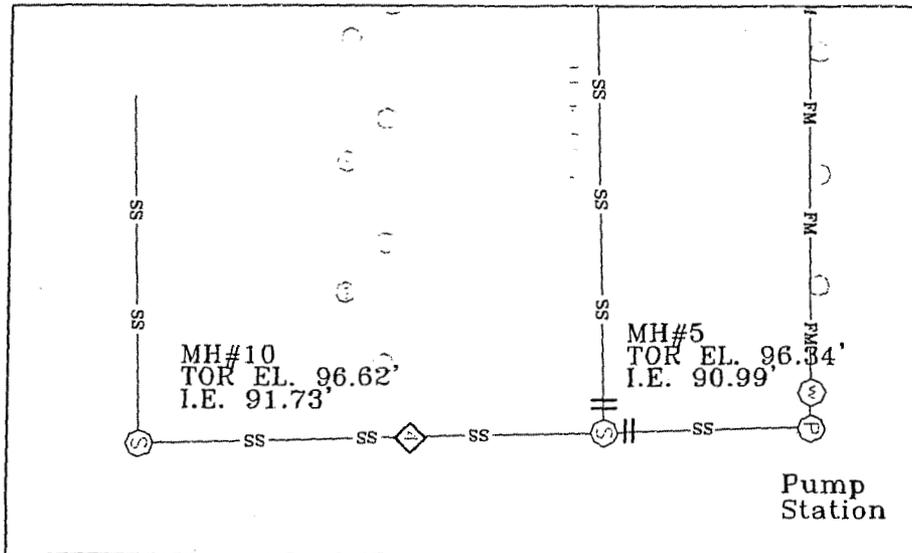
Total Footage Inspected: 258

Location of Smoke Blower: MH Manhole #5

Special Problems/Comments:

Smoke issuance from ground on east side of manhole 5

Note: Draw the location of each applicable manhole and the location of each sewer plug installed.





**Smoke Testing Data Sheet, Cont.**

Sheet 2 of 2

**Leak Location/Description**

**1) Smoke Intensity**

- a) Light
- b) Medium
- c) Heavy

**2) Trunk Line**

- a) Between Manhole
- b) Catch Basin
- c) Storm Sewer X-Connection
- d) Other (below)

**3) Manhole**

- a) Manhole Ring
- b) Manhole Cover
- c) Crack in Wall
- d) Other (below)

**4) Service Connection**

- a) Faulty Connection
- b) Service from Trunk/House
- c) Faulty Cleanout
- d) Area/Yard Drain
- e) Roof Leader
- f) Smoke in Building
- g) No Smoke from Vent
- h) Other (below)

DESCRIPTION	SMOKE	TRUNK LINE		MH		SERVICE CONNECTION		
		INTENSITY	FEET	FROM MH	TO MH	MANHOLE NUMBER	FEET FROM TRUNK LINE	ADDRESS
Manhole # 5 – Smoke from ground east side	A	2	5			5	N/A	End of Pine Road



SHIELD Environmental Associates, Inc.

Sheet 1 of 2

Smoke Testing Data Sheet  
Cedarbrook Subdivision

General Information:

Subsystem: Line 10 Date Tested: 11/16/00

Time of Day: 1143

Inspected by: KM Regan/KG Mills

Present Weather Conditions: Windy and cold/Mid-20s/Dry

Previous Weather Conditions: Windy and cold/Mid-20s/Dry

Access to Manhole: Good X Poor       

Access for Cleaning/TV: Good X Poor       

Number of Manhole Reaches Tested: 1

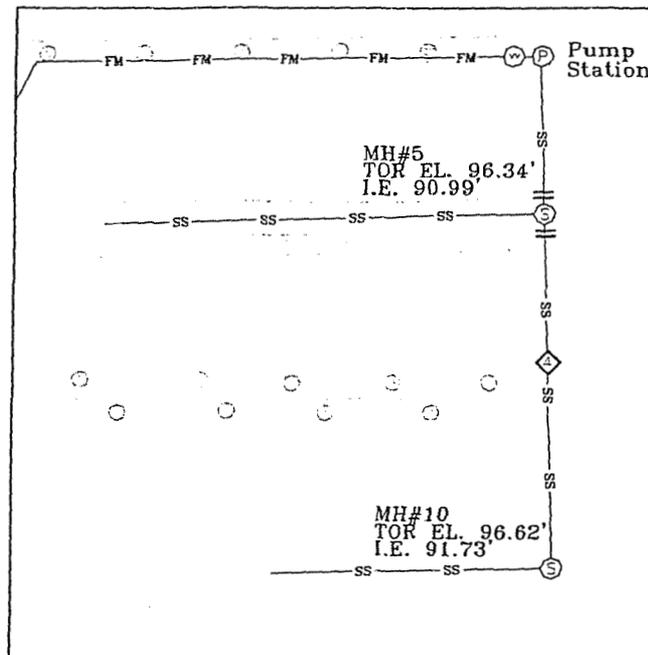
Total Footage Inspected: 310'

Location of Smoke Blower: MH Manhole #5

Special Problems/Comments:

Possible smoke issuance from downspout on left rear side of house at 388 Pine Road.

Note: Draw the location of each applicable manhole and the location of each sewer plug installed.





**Smoke Testing Data Sheet, Cont.**

**Leak Location/Description**

**1) Smoke Intensity**

- a) Light
- b) Medium
- c) Heavy

**2) Trunk Line**

- a) Between Manhole
- b) Catch Basin
- c) Storm Sewer X-Connection
- d) Other (below)

**3) Manhole**

- a) Manhole Ring
- b) Manhole Cover
- c) Crack in Wall
- d) Other (below)

**4) Service Connection**

- a) Faulty Connection
- b) Service from Trunk/House
- c) Faulty Cleanout
- d) Area/Yard Drain
- e) Roof Leader
- f) Smoke in Building
- g) No Smoke from Vent
- h) Other (below)

DESCRIPTION	SMOKE	TRUNK LINE		MH	SERVICE CONNECTION		
		FEET	FROM MH		TO MH	MANHOLE NUMBER	FEET FROM TRUNK LINE
388 Pine Road – Possible smoke from downspout – 4e	A	N/A			5	N/A	388 Pine Road



SHIELD Environmental Associates, Inc.

Sheet 1 of 2

Smoke Testing Data Sheet  
Cedarbrook Subdivision

**General Information:**

Subsystem: Line 9 Date Tested: 11/16/00

Time of Day: 1246

Inspected by: KM Regan/KG Mills

Present Weather Conditions: Windy and cold/Mid-20s/Dry

Previous Weather Conditions: Windy and cold/Mid-20s/Dry

Access to Manhole: Good X Poor       

Access for Cleaning/TV: Good X Poor       

Number of Manhole Reaches Tested: 1

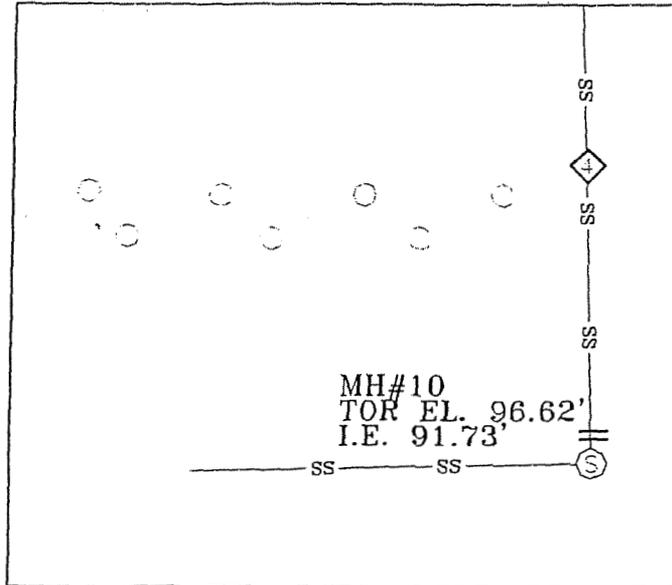
Total Footage Inspected: 197'

Location of Smoke Blower: MH Manhole #10

Special Problems/Comments:

Smoke issuance from ground surrounding manhole 10

Note: Draw the location of each applicable manhole and the location of each sewer plug installed.





### Smoke Testing Data Sheet, Cont.

Sheet 2 of 2

**Leak Location/Description**

**1) Smoke Intensity**

- a) Light
- b) Medium
- c) Heavy

**2) Trunk Line**

- a) Between Manhole
- b) Catch Basin
- c) Storm Sewer X-Connection
- d) Other (below)

**3) Manhole**

- a) Manhole Ring
- b) Manhole Cover
- c) Crack in Wall
- d) Other (below)

**4) Service Connection**

- a) Faulty Connection
- b) Service from Trunk/House
- c) Faulty Cleanout
- d) Area/Yard Drain
- e) Roof Leader
- f) Smoke in Building
- g) No Smoke from Vent
- h) Other (below)

DESCRIPTION	SMOKE	TRUNK LINE			MH		SERVICE CONNECTION	ADDRESS
		FEET	FROM MH	TO MH	MANHOLE NUMBER	FEET FROM TRUNK LINE		
Manhole 10 – Smoke issuance from ground – 3c	B	N/A			10	N/A	End of Evergreen Road	



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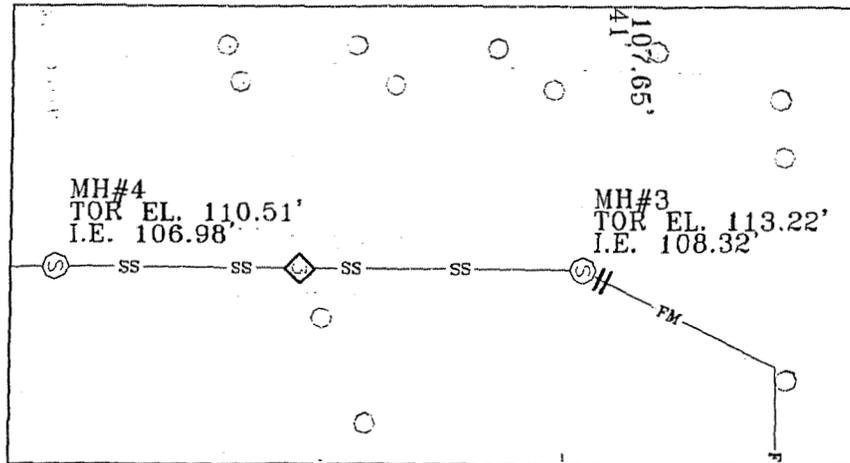
Sheet 1 of 2

Smoke Testing Data Sheet  
Cedarbrook Subdivision

General Information:

Subsystem: Line 3 Date Tested: 11/16/00  
Time of Day: 1310  
Inspected by: KM Regan/KG Mills  
Present Weather Conditions: Windy and cold/Mid-20s/Dry  
Previous Weather Conditions: Windy and cold/Mid-20s/Dry  
Access to Manhole: Good X Poor \_\_\_\_\_  
Access for Cleaning/TV: Good X Poor \_\_\_\_\_  
Number of Manhole Reaches Tested: 1  
Total Footage Inspected: 299'  
Location of Smoke Blower: MH Manhole #3  
Special Problems/Comments:  
No faults noted.

Note: Draw the location of each applicable manhole and the location of each sewer plug installed.





**Smoke Testing Data Sheet, Cont.**

Sheet 2 of 2

**Leak Location/Description**

**1) Smoke Intensity**

- a) Light
- b) Medium
- c) Heavy

**2) Trunk Line**

- a) Between Manhole
- b) Catch Basin
- c) Storm Sewer X-Connection
- d) Other (below)

**3) Manhole**

- a) Manhole Ring
- b) Manhole Cover
- c) Crack in Wall
- d) Other (below)

**4) Service Connection**

- a) Faulty Connection
- b) Service from Trunk/House
- c) Faulty Cleanout
- d) Area/Yard Drain
- e) Roof Leader
- f) Smoke in Building
- g) No Smoke from Vent
- h) Other (below)

DESCRIPTION	SMOKE	TRUNK LINE			MH		SERVICE CONNECTION	ADDRESS
		INTENSITY	FEET	FROM MH	TO MH	MANHOLE NUMBER	FEET FROM TRUNK LINE	
Manhole 10 - Smoke issuance from ground - 3c	B	N/A				10	N/A	End of Evergreen Road



SHIELD Environmental Associates, Inc.

Sheet 1 of 2

Smoke Testing Data Sheet  
Cedarbrook Subdivision

General Information:

Subsystem: Line 1 Date Tested: 11/21/00

Time of Day: 1142

Inspected by: KM Regan/DL Howard

Present Weather Conditions: Windy and cold/Mid-20s/Dry

Previous Weather Conditions: Windy and cold/Mid-20s/Dry

Access to Manhole: Good X Poor     

Access for Cleaning/TV: Good X Poor     

Number of Manhole Reaches Tested: 1

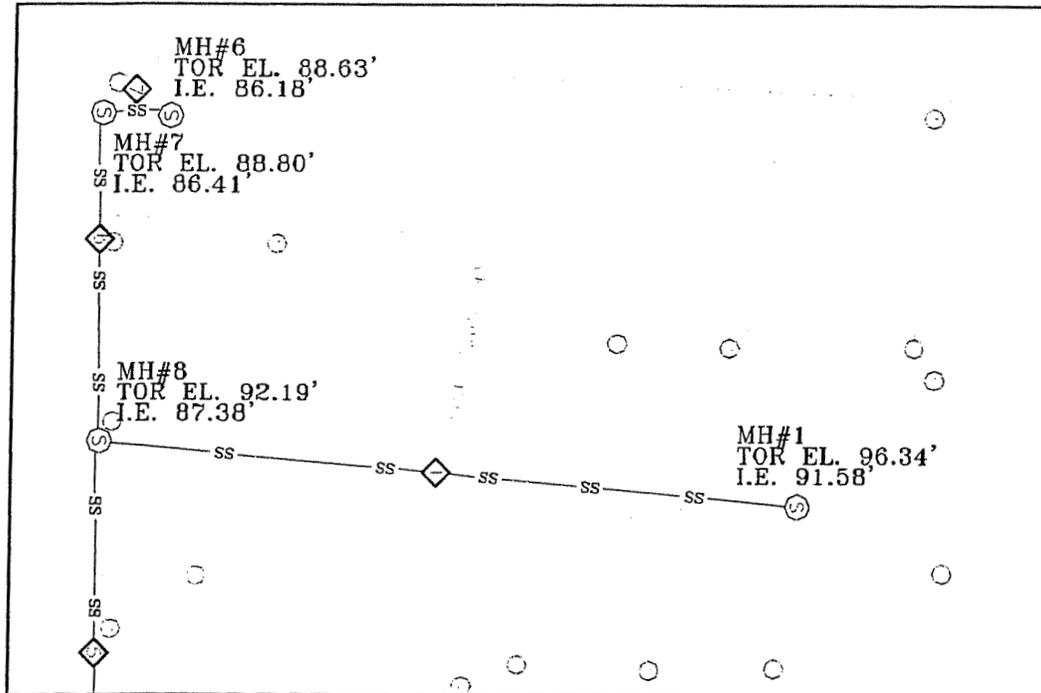
Total Footage Inspected: 423'

Location of Smoke Blower: MH Manhole #1

Special Problems/Comments:

No smoke noted from two storm sewer grates; very heavy smoke from manhole #8; poorly seated lid; manhole located in naturally occurring low spot

Note: Draw the location of each applicable manhole and the location of each sewer plug installed.





**Smoke Testing Data Sheet, Cont.**

**Leak Location/Description**

**1) Smoke Intensity**

- a) Light
- b) Medium
- c) Heavy

**2) Trunk Line**

- a) Between Manhole
- b) Catch Basin
- c) Storm Sewer X-Connection
- d) Other (below)

**3) Manhole**

- a) Manhole Ring
- b) Manhole Cover
- c) Crack in Wall
- d) Other (below)

**4) Service Connection**

- a) Faulty Connection
- b) Service from Trunk/House
- c) Faulty Cleanout
- d) Area/Yard Drain
- e) Roof Leader
- f) Smoke in Building
- g) No Smoke from Vent
- h) Other (below)

DESCRIPTION	SMOKE	TRUNK LINE		MH		SERVICE CONNECTION	
		LOCATION DESCRIPTION	INTENSITY	FEET FROM MH	TO MH	MANHOLE NUMBER	FEET FROM TRUNK LINE
Manhole # 8 - 3a & 3b	C	NA			8	NA	



SHIELD Environmental Associates, Inc.

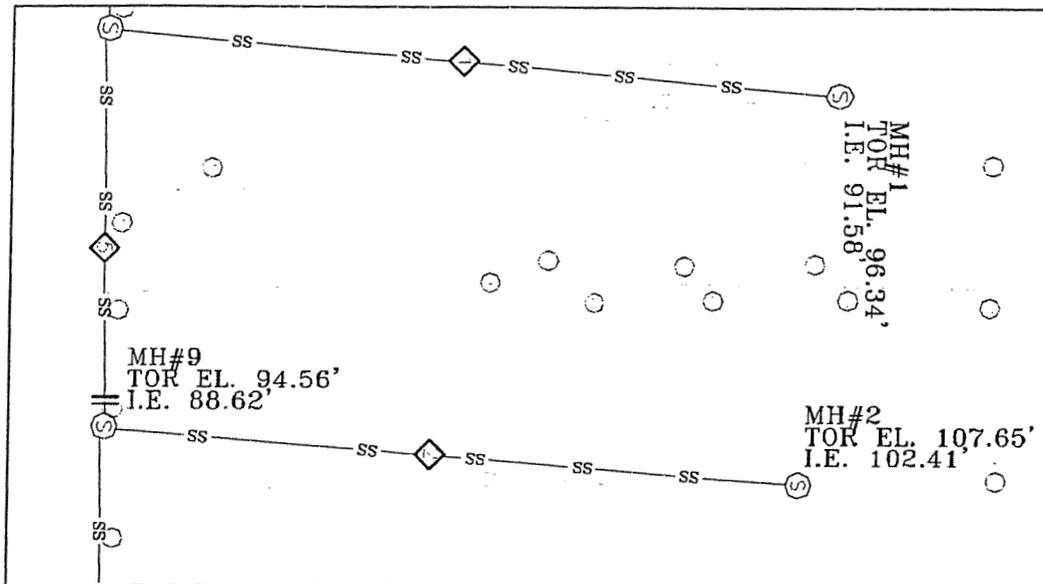
Sheet 1 of 2

Smoke Testing Data Sheet  
Cedarbrook Subdivision

General Information:

Subsystem: Line 2 Date Tested: 11/2200  
Time of Day: 1135  
Inspected by: KM Regan/KG Mills  
Present Weather Conditions: Windy and cold/Mid-20s/Dry  
Previous Weather Conditions: Windy and cold/Mid-20s/Dry  
Access to Manhole: Good X Poor \_\_\_\_\_  
Access for Cleaning/TV: Good \_\_\_\_\_ Poor X  
Number of Manhole Reaches Tested: 1  
Total Footage Inspected: 401'  
Location of Smoke Blower: MH Manhole #9  
Special Problems/Comments:  
Manhole 9 located in backyard with dog; prior coordination required for access; manhole 9 located in naturally occurring low spot

Note: Draw the location of each applicable manhole and the location of each sewer plug installed.





**Smoke Testing Data Sheet, Cont.**

**Leak Location/Description**

**1) Smoke Intensity**

- a) Light
- b) Medium
- c) Heavy

**2) Trunk Line**

- a) Between Manhole
- b) Catch Basin
- c) Storm Sewer X-Connection
- d) Other (below)

**3) Manhole**

- a) Manhole Ring
- b) Manhole Cover
- c) Crack in Wall
- d) Other (below)

**4) Service Connection**

- a) Faulty Connection
- b) Service from Trunk/House
- c) Faulty Cleanout
- d) Area/Yard Drain
- e) Roof Leader
- f) Smoke in Building
- g) No Smoke from Vent
- h) Other (below)

DESCRIPTION	SMOKE	TRUNK LINE		MH		SERVICE CONNECTION		
		INTENSITY	FEET	FROM MH	TO MH	MANHOLE NUMBER	FEET FROM TRUNK LINE	ADDRESS



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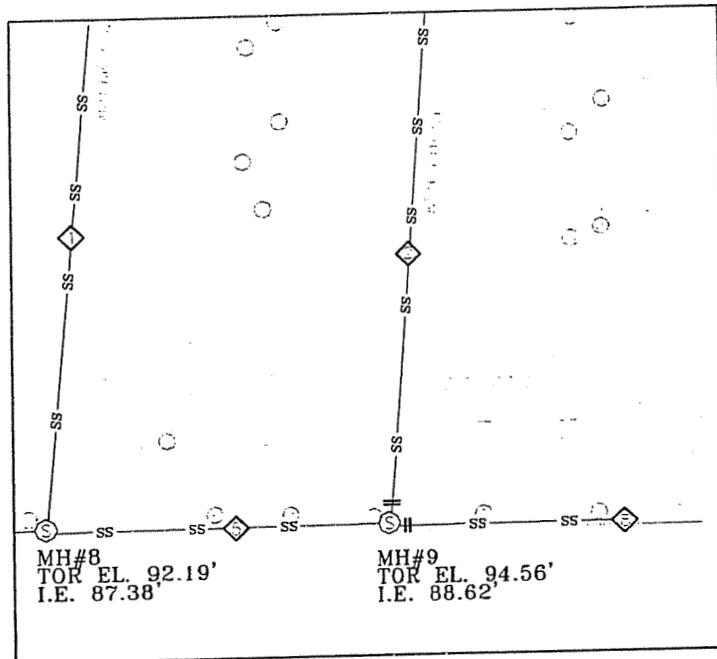
Sheet 1 of 2

Smoke Testing Data Sheet  
Cedarbrook Subdivision

General Information:

Subsystem: Line 5 Date Tested: 11/2200  
Time of Day: 1200  
Inspected by: KM Regan/KG Mills  
Present Weather Conditions: Windy and cold/Mid-20s/Dry  
Previous Weather Conditions: Windy and cold/Mid-20s/Dry  
Access to Manhole: Good X Poor \_\_\_\_\_  
Access for Cleaning/TV: Good \_\_\_\_\_ Poor X  
Number of Manhole Reaches Tested: 1  
Total Footage Inspected: 234'  
Location of Smoke Blower: MH Manhole #9  
Special Problems/Comments:  
Manhole 9 located in backyard with dog; prior coordination required for access; manhole 9  
located in naturally occurring low spot; smoke in back of lot 8 near telephone pole

Note: Draw the location of each applicable manhole and the location of each sewer plug installed.





**Smoke Testing Data Sheet, Cont.**

Sheet 2 of 2

**Leak Location/Description**

**1) Smoke Intensity**

- a) Light
- b) Medium
- c) Heavy

**2) Trunk Line**

- a) Between Manhole
- b) Catch Basin
- c) Storm Sewer X-Connection
- d) Other (below)

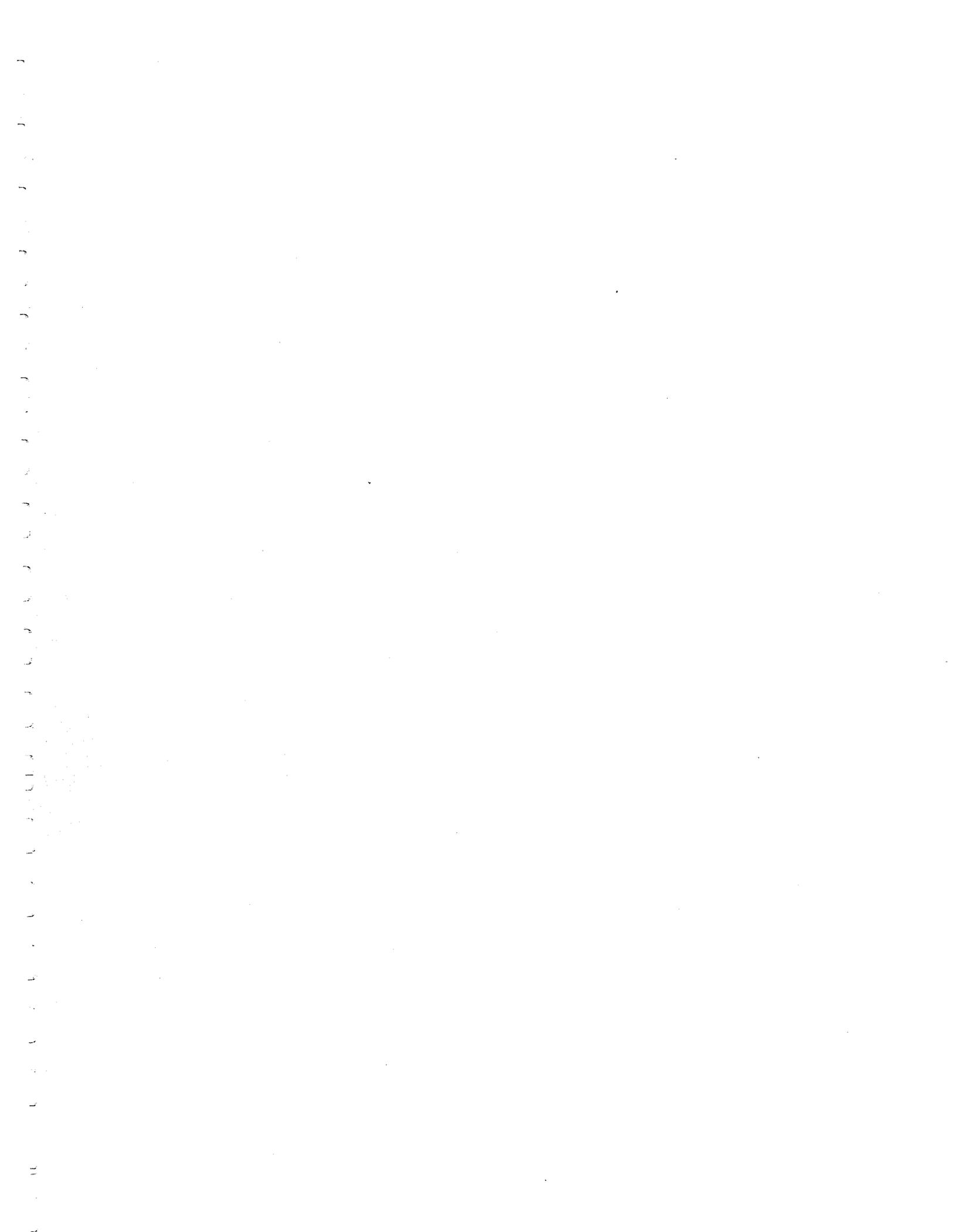
**3) Manhole**

- a) Manhole Ring
- b) Manhole Cover
- c) Crack in Wall
- d) Other (below)

**4) Service Connection**

- a) Faulty Connection
- b) Service from Trunk/House
- c) Faulty Cleanout
- d) Area/Yard Drain
- e) Roof Leader
- f) Smoke in Building
- g) No Smoke from Vent
- h) Other (below)

DESCRIPTION	SMOKE INTENSITY	TRUNK LINE		MH		SERVICE CONNECTION	
		FEET	FROM MH	TO MH	MANHOLE NUMBER	FEET FROM TRUNK LINE	ADDRESS
Smoke issuance from ground near telephone pole	A	30'	9		9	NA	Backyard lot 8



**CEDARBROOK SUBDIVISION  
Sanitary Sewer System Maximum Design Capacities**

Line No.	From End	To End	Manhole No.		Pipe (in.)	Pipe (ft)	Capacity			Hazen-Williams			Max. Velocity (ft/s)	Fall in Sewer	Invert Elevation		Surface Elevation	
			Length	Slope			(cfs)	(gpm)	C	R	S	Upper End			Lower End	Upper End	Lower End	
1	1	8	423.42	0.0099	8	0.6667	1.357	609.3	110	0.16667	0.00992	3.89	4.20	91.58	87.38	96.34	92.19	
2	2	9	401.42	0.0148	8	0.6667	1.685	756.2	110	0.16667	0.01480	4.83	5.94	94.56	88.62	107.65	94.56	
3	3	4	299.25	0.0045	8	0.6667	0.884	396.6	110	0.16667	0.00448	2.53	1.34	108.32	106.98	113.22	110.51	
4	10	5	258.42	0.0029	8	0.6667	0.694	311.5	110	0.16667	0.00286	1.99	0.74	91.73	90.99	96.62	96.34	
5	9	8	234.42	0.0053	8	0.6667	0.967	433.9	110	0.16667	0.00529	2.77	1.24	88.62	87.38	94.56	92.19	
6	8	7	200.08	0.0048	8	0.6667	0.922	414.0	110	0.16667	0.00485	2.64	0.97	87.38	86.41	92.19	88.80	
7	7	6	41.00	0.0056	8	0.6667	0.998	447.9	110	0.16667	0.00561	2.86	0.23	86.41	86.18	88.80	88.63	

Maximum Capacity at Full Flow = 0.694 cfs or 311.5 gpm

C (Hazen-Williams Pipe Coefficient) = 110 (Vitrified Clay Pipe)      R = Hydraulic Radius      S = Slope

NOVEMBER 19, 2000

PROJECT NO.: 300-1770  
DRAWN BY: KMR  
APPROVED BY: TMR

TABLE NO. 1  
LINE DESIGN CAPACITIES  
CEDARBROOK SUBDIVISION  
CYNTHIANA, KENTUCKY

 **SHIELD**  
ENVIRONMENTAL ASSOCIATES, INC.  
2456 Fortune Drive, Suite 100  
Lexington, KY 40509  
859-294-5155





February 2, 2007

Mark C. Frost  
Commonwealth of KY Public Service Commission  
211 Sower Blvd.  
P.O. Box 615  
Frankfort, KY 40602-0615

Re: Cedarbrook Treatment Plant

Dear Mr. Frost,

Enclosed please find the proposals for the repairs needed at the plant. You were in need of these additional quotes before you could complete the work on the surcharge. Some time has passed since I sent the other information to you. If at this point you would also like to take the actual expenses for 2006 into account please let me know as soon as possible so that I can get that information to you also.

I apologize for taking so long to get these quotes to you but Larry Smithers had some trouble finding companies that would even quote the work. If you need anything else please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Susan Daugherty".

Susan Daugherty  
Controller

RECEIVED

FEB 01 2007

R.A. WILLIAMS CO., INC.

MURPHYS EXCAVATING  
379 BROOKSVIEW CR.  
BROOKS, KY. 40109  
PHONE-9573775-MOBIL-7733526-FAX-9576185  
2-1-07

---

CEDARBROOK WWTP  
R.A. WILLIAMS  
OWNER

**BID PROPOSAL & ESTIMATED COST OF REPAIRS**

- FOR THE COMPLETE REPAIR OF ALL WORK ON INSPECTION REPORT MADE BY MARTINS PIPE LINE CO. 1-24-06.
  
- TOTAL FOR ALL WORK, PARTS & LABOR-----\$148,650.00

ONE HUNDRED FOURTY EIGHT THOUSAND, SIX HUNDRED & FIFTY DOLLARS

THANK YOU

JOE MURPHY

1706 Bardstown Road  
Louisville, KY 40205  
502-241-4809  
502-241-7943 Fax

**Covered Bridge  
Utilities, Inc.**

# Fax

**To: Susan**

**From: Larry**

**Date: 2/1/07**

**No. of Pages: 2**

**Re: Cedarbrook WWTP**

**Find attached one of the quotes for the sewer repairs.**



# ELI CAMPBELL PLUMBING LLC

PLUMBING CONTRACTOR  
 773 C Westland Drive Lexington, Kentucky 40504-1002  
 (859) 231-0358 Fax (859) 231-0489  
 www.elicampbellplumbing.com

JAN 22

R.A. Williams, Inc  
 153 Prosperous Place, Suite 1A  
 Lexington, KY 40509

Jan 18, 2007

## Proposal Cedar Brook Subdivision

Eli Campbell Plumbing has been asked to submit a bid for the following work on the existing sewer lines at this subdivision.

Manhole #1 extending to manhole 8A-Remove roots from line	\$ 575.00
Manhole #2 extending to Manhole#9B-Remove roots from main	575.00
Run Sewer machine thru laterals	1,278.00
Repair hole in pipe in main	1,267.00
Manhole #3 to Manhole #4-replace mains	38,987.00
Manhole #4 to manhole 9A-Replace mains	17,658.00
Manhole #5 extending to manhole #10-cut out roots	875.00
Manhole #7 extending to Manhole #8-Replace main	27,694.00
Manhole #8 extending to Manhole #9-Replace main	34,591.00
Manhole #9 extending to Manhole #9A-Replace main	38,788.00
Manhole#10A extending to Pump Station-Replace main	<u>12,878.00</u>

### Bid Price:

\$ 175,166.00

### Exclusions:

- 1) rock excavation or hauled off
- 2) tap or connection fees associated with installation of any utility lines
- 3) concrete, floor repair or replacement
- 4) street cut repair and replacement

**Eli Campbell Plumbing, LLC**

JAN 22

page 2 of 2

- 5) Storm Drainage
- 6) We will not Co-insurance, we carry our own Automobile, General Liability, and Workman's Compensation.
- 7) Due to escalating cost of gasoline and chronic materials shortages now occurring in the construction industry Eli Campbell Plumbing states as a part of this bid we will resume no responsibility for any shortages by suppliers and manufacturers.
- 8) Due to extreme price increases that our now occurring in our trade, we must limit acceptance of this bid to 30 days. Written acceptance must be received by our office within this time or bid may not be honored.
- 9) Bids unless specifically noted do not include costs associated with plan approvals and work cannot begin before approved plans are given to plumbers.
- 10) Bid does not include any fees or costs associated with bid or performance bonds.

*Rec'd 11/06/06*

# MARTIN'S PIPELINE INSPECTION, INC.

P.O. Box 5343 Paris, KY 40362-5343

Phone (859) 987-2529  
Fax (859) 987-2583

www.martins-services.com  
E-Mail: mthornton@martins-services.com

September 7, 2006

Covered Bridge Utilities, Inc.  
Attention: Larry Smith  
1706 Bardstown Road  
Louisville, KY 40205

Ref: Quote for pipe replacement at Cedarbrook WWTP

Larry,

I would like to begin by saying thank you for your continued interest in our company. The following is a revised quote for the pipe replacement and repairs that are needed at the Cedarbrook WWTP per the attached sheet.

- All pipe will be replaced with SDR 35 8" pipe, couplings and service tees.
- The pipe will be bedded in stone per standard pipe specifications for road and or grade.
- Bypass pumping will be used in order to keep the sewer system operational and to prevent any bypassing during the project.
- Manholes will be resealed and vacuum tested to insure that they are properly sealed.
- A video inspection, mandrel test and air test will be performed after all pipe has been backed filled to insure that there are no problems.
- The entire site shall be graded and reseeded, and asphalt replaced for all street cuts.

**Total: \$154,797.21**

Please make note that PVC pipe and stone are increasing in price and this quote is only valid for 30 days.

If you have any additional questions, please feel free to call me at 859-987-2529.

Thank you,



Mike Thornton

**CEDARBROOK WWTP**

**2/7/2006**

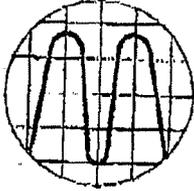
<u>Line Segment</u>	<u>Recommended Solution</u>	<u>Estimated Repair Cost</u>	<u>Yearly Maintenance</u>
<b>Manhole #5 - Manhole #10</b> 1. Roots in joints from 96'-105' 2. Pipe in overall excellent condition	<b>Yearly maintenance</b>	\$ -	\$ 325.00
<b>Manhole #10A - Manhole #11</b> 1. Manhole 10A (roots in manhole) 2. Pipe in overall excellent condition	<b>No action needed</b>	\$ -	
<b>Manhole #10A - Pump Station (95')</b> 1. Only 1 residential lateral 2. Entire line segment has sags (length of pipe) 3. Heavy infiltration in two locations	<b>Replace entire line</b>	\$ 6,865.00	
<b>Manhole #3 - Manhole #4 (307')</b> 1. Sag in pipe from 144'-197' 2. Sag in pipe from 221'- 307'	<b>Replace entire line</b>	\$ 29,932.50	
<b>Manhole #4 - Manhole #9A (133')</b> 1. Infiltration @ 1.5' in joint (Light) 2. Sag in pipe from 14'-92' 3. Pipe collapsed at Manhole 9A	<b>Replace entire line</b>	\$ 12,976.50	
<b>Manhole #2 - Manhole #9B</b> 1. Roots in several joints 2. Hole in top of pipe @ 153.1 3. All laterals have moderate to heavy roots 4. Pipe in overall good condition	<b>Yearly maintenance</b>  (no infiltration apparent)	\$ -	\$ 325.00
<b>Manhole #1 - Manhole #8A</b> 1. Roots in several joints 2. Pipe in overall excellent condition	<b>Yearly Maintenance</b>		\$ 325.00
<b>Manhole #9B - Manhole #9</b> 1. Pipe in overall excellent condition	<b>No action needed</b>	\$ -	
<b>Manhole #8A - Manhole #8</b> 1. Pipe in overall excellent condition	<b>No action needed</b>	\$ -	
<b>Manhole #7 - Manhole #8 (186')</b> 1. Infiltration @ 52' 2. Sag in pipe from 135'-140'	<b>Replace entire line</b>	\$ 12,370.86	
<b>Manhole #8 - Manhole #9 (264')</b> 1. Sag in pipe from 61'-70' and from 210'-250' 2. Service taps in need of repair 3. Hole in pipe @ 144'	<b>Replace entire line</b>	\$ 17,558.64	
<b>Manhole #9 - Manhole #9A (321')</b> 1. Broken pipe @ 317' 2. Overall condition of pipe is fair	<b>Replace entire line</b>	\$ 21,349.71	
<b>TOTAL:</b>		<b>\$ 101,053.21</b>	<b>\$ 975.00</b>

CEDARBROOK WWTP

9/7/2006

<u>Line Segment</u>	<u>Recommended Solution</u>	<u>Estimated Repair Cost</u>	<u>Yearly Maintenance</u>
<b>Manhole #5 - Manhole #10</b> 1. Roots in joints from 96'-105' 2. Pipe in overall excellent condition	Yearly maintenance	\$ -	\$ 325.00
<b>Manhole #10A - Manhole #11</b> 1. Manhole 10A (roots in manhole) 2. Pipe in overall excellent condition	No action needed	\$ -	
<b>Manhole #10A - Pump Station (95')</b> 1. Only 1 residential lateral 2. Entire line segment has sags (length of pipe) 3. Heavy infiltration in two locations	Replace entire line	\$ 10,925.36	
<b>Manhole #3 - Manhole #4 (307')</b> 1. Sag in pipe from 144'-197' 2. Sag in pipe from 221'-307'	Replace entire line	\$ 39,910.58	
<b>Manhole #4 - Manhole #9A (133')</b> 1. Infiltration @ 1.5' in joint (Light) 2. Sag in pipe from 14'-92' 3. Pipe collapsed at Manhole 9A	Replace entire line	\$ 15,295.23	
<b>Manhole #2 - Manhole #9B</b> 1. Roots in several joints 2. Hole in top of pipe @ 153.1 3. All laterals have moderate to heavy roots 4. Pipe in overall good condition	Yearly maintenance (no infiltration apparent)	\$ -	\$ 325.00
<b>Manhole #1 - Manhole #8A</b> 1. Roots in several joints 2. Pipe in overall excellent condition	Yearly Maintenance		\$ 325.00
<b>Manhole #9B - Manhole #9</b> 1. Pipe in overall excellent condition	No action needed	\$ -	
<b>Manhole #8A - Manhole #8</b> 1. Pipe in overall excellent condition	No action needed	\$ -	
<b>Manhole #7 - Manhole #8 (186')</b> 1. Infiltration @ 52' 2. Sag in pipe from 135'-140'	Replace entire line	\$ 21,390.19	
<b>Manhole #8 - Manhole #9 (264')</b> 1. Sag in pipe from 61'-70' and from 210'-250' 2. Service taps in need of repair 3. Hole in pipe @ 144'	Replace entire line	\$ 30,360.64	
<b>Manhole #9 - Manhole #9A (321')</b> 1. Broken pipe @ 317' 2. Overall condition of pipe is fair	Replace entire line	\$ 36,915.21	
<b>TOTAL:</b>		<b>\$ 154,787.21</b>	<b>\$ 975.00</b>

Quote valid for 30 days.  
Additional surcharge applies due to the increasing PVC pipe & material cost if after 30 days.



# M&M Electric, Inc.

COMMERCIAL / INDUSTRIAL ELECTRICAL CONTRACTORS  
CORNER OF S. 3RD & McGRATH STREET - DANVILLE, KENTUCKY 40422  
PHONE: 859/236-7589 FAX: 859/236-9210

February 5, 2007

RECEIVED

FER 06 2007

R.A. WILLIAMS CO., INC.

Larry Smither  
Covered Bridge Utilities, Inc.  
1706 Bardstown Road  
Louisville, KY 40205  
Tel: (502) 241-4809  
Fax: (502) 241-7943

Re: Various Repairs to Sewer System  
Farmdale Communities  
Cynthiana, Kentucky

Dear Mr. Smither:

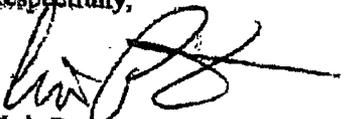
Per your conversation with Mr. Montgomery, we are pleased to provide the following estimate for the above referenced. As you are aware, we are dependant solely on the inspection report provided by Martins Pipeline Inspection of Paris Kentucky. The estimate is as follows:

Make all repairs required as per your inspection report completed by Martins Pipeline Inspection of Paris Kentucky dated February 7, 2006 including all parts, labor and equipment. Please note, this is only an estimate and may result in additional costs due to unknown conditions.

**Lump Sum Estimate: 168,245.37**

This quotation is valid for 15 days. After the above noted date, it is subject to changes at our discretion. Thank you for the opportunity to be of service and hope we have met all of your requests, intentions and expectations. If we have overlooked anything or misinterpreted your request, please do not hesitate to contact this office.

Respectfully,



Chris Preston  
Project Manager

(1070g-smither farmdale)

Quotation

**Covered Bridge Utilities, Inc.**  
**1706 Bardstown Road**  
**Louisville, Kentucky 40205**  
**(502)238-3301 Fax (502)238-3329**

March 21, 2006

Mr. Ron Osborne  
R.A. Williams Company Inc.  
153 Prosperous Place  
Suite 1-A  
Lexington, KY 40509

Re: Cedarbrook Subdivision Sewer System

Dear Mr. Osborne:

As requested, the following is a break down of the repairs, replacements and additions that need to be made in the referenced sewer system – including the treatment plant, the remote lift station and the gravity sewer mains. With this list are the current cost for each item.

It is as follows:

**Sewage Treatment Plant**

1) Remove the existing air lift sludge returns and skimmers. Furnish the necessary materials, fabricate new sludge returns, skimmers and install same.

Your price - - \$5,625.00 installed

2) One new (1) Sutorbilt Model 4M blower motor assembly with 7.5 H.P. motor housed in a fiberglass enclosure. Also furnish one (1) duplex electrical blower control panel.

We will pour a concrete pad next to the aeration tank, mount the new blower/motor assembly, move the existing blower motor assembly off of the plant and mount it on the pad and install the control panel.

Your price - - \$8,330.00 installed

(2)

3) Purchase one (1) new Zoeller Model N267-F effluent pump. It will be stored in the building and used when the existing pump goes out. The treatment plant only has piping for one effluent pump.

Your price - - \$434.00

**Remote Lift Station**

- 1) This is a duplex station with only one pump, and that pump is not the one the station was designed to have. This pump should be removed and two (2) new Myers Model 3WHV30M4-21 non-clog submersible pumps should be installed with new guide rail assemblies. Note: This is the make and model pump that the station originally had.

Also install one (1) new duplex 3 H.P. 230 volt 1 phase pump control panel.

Your price - - \$15,022.00 installed

**Gravity Sewer Mains**

- 1) The gravity sewer mains in the Cedarbrook subdivision are in need of extensive repair to stop the I/I problems that exist. As you are aware, a video survey of all the gravity sewer mains is now complete and with the report supplied by Martin Pipeline Inspection Company I have been able to obtain an estimate to repair all areas that are identified as being sources of I/I.

Your price - - \$111,053.00

If you have questions or need additional information please let me know.

Sincerely,

Lawrence W. Smither



R98:7704  
021797:1:GWM.141249.lex  
Highland Deed

QUITCLAIM DEED

THIS QUITCLAIM DEED, made and entered into this the 21<sup>st</sup> day of February, 1997, by and between HIGHLAND DEVELOPMENT CORPORATION, a Kentucky corporation, whose address is P.O. Box 200, Paris, Kentucky 40362-0200, party of the first part, and R. A. WILLIAMS COMPANY, INC., a Kentucky corporation of 153 Prosperous Place, Suite 1-A, Lexington, Kentucky 40509, party of the second part;

W I T N E S S E T H:

That party of the first part, for and in consideration of \$1.00, receipt of which is hereby acknowledged, do hereby remise, release and forever quitclaim unto party of the second part, its successors and assigns forever, all of its right, title, interest or claim in and to the following described property, located in Harrison County, Kentucky, to-wit:

Being all of Lot 1, Block C, Unit 1 of Cedarbrook Subdivision as shown by plat of record in Plat Book 1, Slide 103, Harrison County Clerk's Office and to which plat reference is hereby made for a more particular description.

Being a part of the same property conveyed to First Party from Julian Varner and Betty Varner, his wife, by deed dated June 22, 1973 of record in Deed Book 140, Page 109, Harrison County Clerk's Office.

TO HAVE AND TO HOLD, the same unto party of the second part, its successors and assigns forever.

IN WITNESS OF ALL WHEREOF, the said party of the first part has hereunto set its hand on this the day and year first above written.

HIGHLAND DEVELOPMENT CORPORATION

By: Rory J. Whith  
Its: Vice-President

ES8:7704  
021797.1:GM.141249.lex  
Highland Deed

STATE OF KENTUCKY )  
                          ) SCT.  
COUNTY OF Laudon )

The foregoing instrument was acknowledged before me this 21<sup>st</sup> day of February, 1997 by Henry Ninkle, Vice President of Highland Development Corporation, a Kentucky corporation, on behalf of the corporation.

My Commission Expires: May 26, 2000

Bette G. Edwards  
NOTARY PUBLIC, STATE AT LARGE, KY

CERTIFICATION OF CONSIDERATION

Being first duly sworn, the undersigned Grantor and Grantee, state that the consideration set forth in the foregoing deed is true and correct and is the full consideration paid for the subject property.

GRANTOR: HIGHLAND DEVELOPMENT CORPORATION

By: Henry Ninkle  
Its: Vice President

GRANTEE: R. A. WILLIAMS COMPANY, INC.

By: Ronald J. Brown J.  
Its: SECRETARY

STATE OF KENTUCKY )  
                          ) SCT:  
COUNTY OF FAYETTE )

The foregoing Certificate of Consideration was subscribed and sworn to before me this 21<sup>st</sup> day of February, 1997 by Henry Ninkle, Vice President of Highland Development Corporation, a Kentucky corporation, on behalf of the corporation.

My Commission Expires: May 26, 2000

Bette G. Edwards  
NOTARY PUBLIC, STATE AT LARGE, KY

R98:7704  
021797:1:GWM.141249.lex  
Highland Deed

STATE OF KENTUCKY )  
 ) SCT:  
COUNTY OF FAYETTE )

The foregoing Certificate of Consideration was subscribed and sworn to before me this 28 day of February, 1997, by Ronald J. Osborne Jr., Secy of R. A. Williams Company, Inc., a Kentucky corporation, on behalf of the corporation.

My Commission Expires: 7/12/97

[Signature]  
NOTARY PUBLIC, STATE AT LARGE, KY.

This Instrument Prepared By:  
STITES & HARBISON  
2300 Lexington Financial Center  
250 West Main Street  
Lexington, Kentucky 40507

By: [Signature]

State of Kentucky  
County of Harrison

I, Ralph E. Coppage, Clerk of the Harrison County Court do hereby certify that the foregoing Deed was on the 9th day of May 1997 at 4:20 P.M.; lodged in my office certified as above for record, whereupon, the same and this certificate are now duly recorded.

Given under my hand this the 13th day of May 1997.

Ralph E. Coppage Clerk  
Linda Barnes D.C.

Tax Collected: .50