

August 16, 2018

Mr. Robert Pelosi
Vermont Department of Environmental Conservation
One National Life Drive
Montpelier, VT 05620

RE: **Clean Water Infrastructure Asset Management Plan**
Town of Wilmington
2016-CWI-AMP-10
A+E Project 16067

Dear Robert,

On behalf of the Town of Wilmington, we are pleased to submit this Final Performance Report for the above Clean Water Asset Management Grant.

Attached you will find all previously submitted performance measures (deliverables) in one document. These deliverables are listed below.

Deliverable 1 – Asset Inventory & Condition Assessment
Deliverable 2 – System Assets Map
Deliverable 3 – Level of Service
Deliverable 4 – Risk Assessment
Deliverables 5 & 6 – Capital Improvement Plan and Funding Strategy Narrative

If you have any questions, please feel free to contact us.

Sincerely,

Aldrich + Elliott, PC



Joseph S. Krupa, PE
Project Engineer

Attachments



Attachment D
Vermont DEC – Clean Water Infrastructure Asset Management Grant Program
Final Performance Report

Title: Clean Water Infrastructure Asset Management Plan

Organization: Town of Wilmington

Grant Number: 2016-CWI-AMP-10

Report Date: August 8-16-2018

Summary: Final Performance Report contains all grant milestones.

CWI Funding:

Total Project Costs:

Performance Measures:

- Performance Measure 1 - Asset Inventory & Condition Assessment
- Performance Measure 2 - System Assets Map
- Performance Measure 3 - Level of Service
- Performance Measure 4 - Risk Assessment
- Performance Measure 5 - Capital Improvement Plan & Funding Strategy Narrative
- Performance Measure 6



DELIVERABLE 1

ASSET INVENTORY & CONDITION ASSESSMENT

Town of Wilmington
 Asset Management Program
 Private Sewer Lines
 A+E Project #: 16067

Pipe ID Matrix	
Label	Description
EM1	Street Code: East Main Street Section 1
EM2	Street Code: East Main Street Section 2
WM	Street Code: West Main Street Section
PVT	Privately owned sewer
SER	Building sewer service
##	Number indicates either privately owned sewer in sequence or address of building service.

Material Key	
Type	Description
PVC	Polyvinyl Chloride
CI	Cast Iron
DI	Ductile Iron
AC	Asbestos Cement
VC	Vitrified Clay

Pipe Condition	
Rating	Description
4	Collapsed or Collapse Imminent
3	Significant defects and/or localized pipe failures
2	Mid-life. Collapse unlikely, minor sags/defects
1	New or like new sewer line

Pipe ID	Street Name	Location (Street Address or VT State Plane Coordinates)			Street Code	Pipe Diameter (in.)	Pipe Material	Depth of Cover (ft)	Segment Length (ft)	Pipe Condition (1-5)	Current Year	Installation Date ⁽¹⁾	Age	Notes
		Address Number	Downstream Coordinate	Upstream Coordinate										
EM1 - PVT - 1	East Main	--	(N) 133474.5000 (E) 1541602.2960	(N) 133600.1070 (E) 1541633.4880	EM1	6	AC	6	130	2	2017	1960	57	Connects to Town owned manhole
EM1 - PVT - 2	East Main	--	(N) 133600.1070 (E) 1541633.4880	(N) 133679.8890 (E) 1541611.1350	EM1	4	DI	5 to 16	80	2	2017	1960	57	Steep slope to Cleanout connection with EM1-PVT-1
EM1 - PVT - 3	East Main	--	(N) 133679.8890 (E) 1541611.1350	(N) 133765.5870 (E) 1541620.8470	EM1	4	DI	5	90	2	2017	1960	57	Under driveway of #37
EM1 - PVT - 4	East Main	--	(N) 133765.5870 (E) 1541620.8470	(N) 133914.6910 (E) 1541708.1880	EM1	4	DI	6	170	2	2017	1960	57	Under driveway of #37
EM1 - PVT - 5	East Main	--	(N) 133914.6910 (E) 1541708.1880	(N) 133987.6890 (E) 1541552.4940	EM1	4	DI	1 to 7	175	3	2017	1960	57	Depth increases from 1ft to 7ft
EM1 - SER - 28	East Main	28	--	--	EM1	4	PVC	2 to 1	70	2	2017	1960	57	House Service
EM1 - SER - 34	East Main	34	--	--	EM1	4	PVC	3.5	30	2	2017	1960	57	House Service
EM1 - SER - 36	East Main	36	--	--	EM1	4	CI	**	60	2	2017	1960	57	House Service
EM1 - SER - 37	East Main	37	--	--	EM1	4	CI	3	25	2	2017	1960	57	House Service
EM1 - SER - 38	East Main	38	--	--	EM1	4	CI	5 to 7	40	2	2017	1960	57	House Service
EM1 - SER - 40	East Main	40	--	--	EM1	4	CI	4 to 7	35	2	2017	1960	57	House Service
EM2 - PVT - 1	East Main	63, 65, 69, 71	--	--	EM2	4	CI / PVC / VC	3 to 5	270	4	2017	1960	57	Runs under structures below the basement floor slabs.
EM2 - PVT - 2	East Main	73	--	--	EM2	4	PVC	6	30	1	2017	2010	7	Replaced recently by property owner.
WM - PVT - 1	West Main Street	--	(N) 134481.7410 (E) 1540500.9035	(N) 134702.4200 (E) 1540645.8920	WM	6	VC	4 to 6	260	2	2017	1960	57	Located in gravel driveway between Memorial Hall and #16
WM - PVT - 2	West Main Street	--	(N) 134702.4200 (E) 1540645.8920	(N) 134710.2250 (E) 1540659.8710	WM	4	VC	4	20	2	2017	1960	57	Transitions to 6" pipe WM-PVT-1
WM - PVT - 3	West Main Street	--	(N) 134710.2250 (E) 1540659.8710	(N) 134654.2050 (E) 1540759.6180	WM	4	VC	3.6	115	2	2017	1960	57	Bends 90 degrees from WM-SER-9
WM - SER - 9	West Main Street	9	--	--	WM	4	PVC	3.5	15	2	2017	1960	57	House Service
WM - SER - 11	West Main Street	11	--	--	WM	**	**	**	50	2	2017	1960	57	House Service
WM - SER - 15	West Main Street	15	--	--	WM	4	PVC TO CI	4	40	2	2017	1960	57	House Service
WM - SER - 16	West Main Street	16	--	--	WM	4	CI	3.5	30	2	2017	1960	57	House Service

** Unknown/Could not be inspected

(1) Date assumed to be 1960 based on approximate installation date of Town sewer system.

W. Main Street

911	TAX MAP	NAME	ADDRESS	CITY	STATE	ZIP
9	02020073.000	NINE WEST MAIN PROPERTIES LLC	801 NORTH MAIN ST EXTEN	WALLINGFORD	CT	06492
11	02020072.000	HART LILLAS M	PO BOX 114	WILMINGTON	VT	05363
14	02020085.000	WILMINGTON TOWN OF	PO BOX 217	WILMINGTON	VT	05363-0247
15	02020071.000	LH VT HOUSE LLC	70 WILLIAM ST	WALLINGFORD	CT	06492
16	02020081.000	BEAUDETTE CYNTHIA	PO BOX 937	WILMINGTON	VT	05363-0937
17	02020070.000	72 ACRES LLC	PO BOX 547	WILMINGTON	VT	05363-0547

Lillas used 4/28/17 10:30 A.M.

Cindy Beaudette used 4/28/17 1:30 P.M.
 No show 464-3506

Nick Lombardi 203-623-0433
 Nick Squire Herwig 802-770-2811



Wilmington

© 2016 Google

Imagery Date: 04/01/2014 10:17:00 73

**PROPERTY INFORMATION
DATA SHEET**

"Mangia e Beve"
Restaurant
Owner Name: Nine West Main Properties
First Last

Date of On-Site Visit 7/18/17

Street Address: 9 West Main

Date of Follow-up Visit _____

Contact Person Bruno

BASEMENT OBSERVATIONS

☒ Full Height ☐ Crawl Space

Floor: ☒ Concrete ☐ Earth

☐ No Basement

☐ Mobil Home

Sump Pumps? ☐ Yes ☒ No

6 ft. 9 in.: from top of Foundation wall to floor.

WALLS

☐ Poured Concrete ☒ Stone

☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☒ No

Where does water line enter building?

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub

☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☒ Does it go out a basement wall?

If yes: _____ ft. 35 in.: from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☒ No

If yes, mark location on sketch plan.

☐ Ask owner what direction sewer pipe leaves the building. Show on sketch.

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ ____-in

SEWER DRAIN PIPE MATERIAL:

☐ Cast Iron ☐ Orangeberg

☐ Vertified Clay

☐ PVC (Plastic)

☐ Other _____

SE Corner

through wall - inside

S

SKETCH

LEGEND

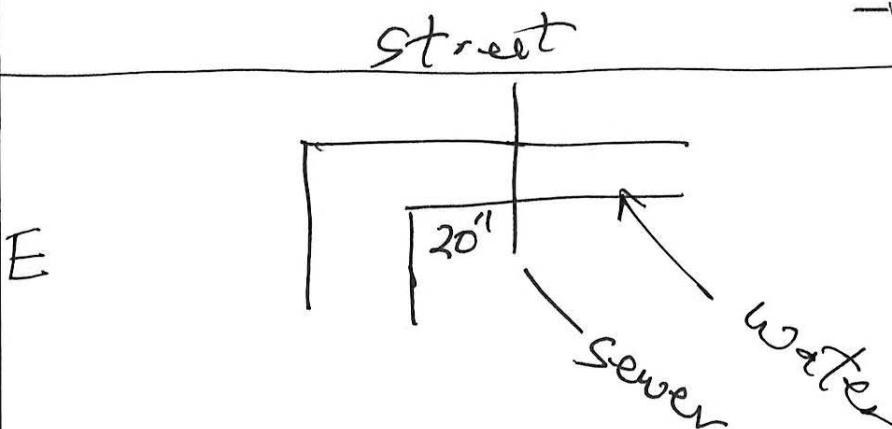
—s— Sewer Line
—w— Water Line

Show measurement for locations of:

- Sewer exiting building
- Water line entering building

Show locations:

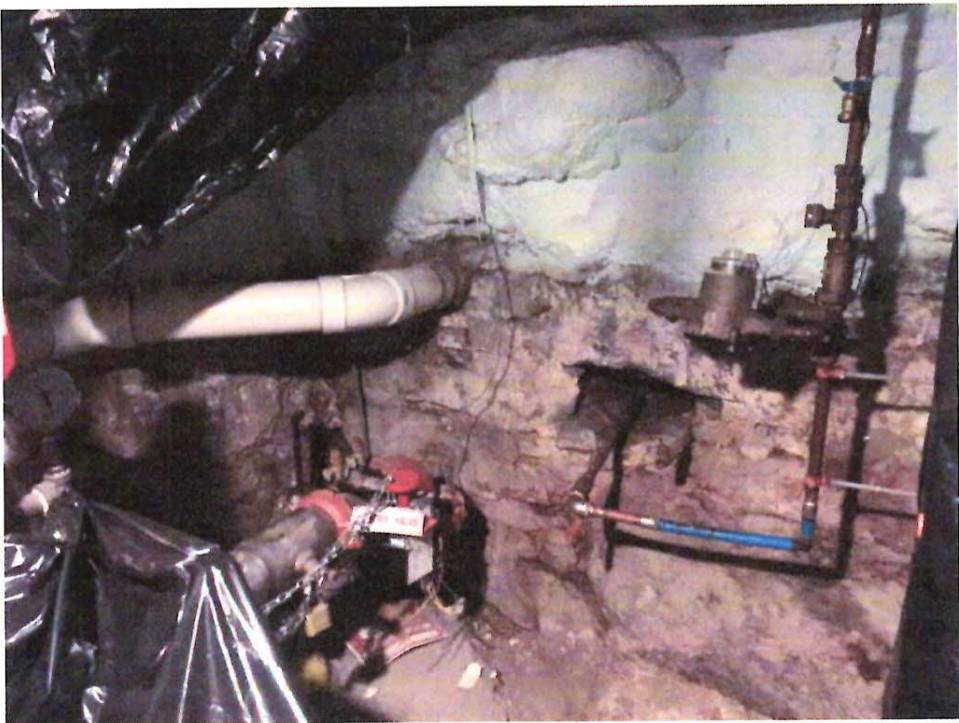
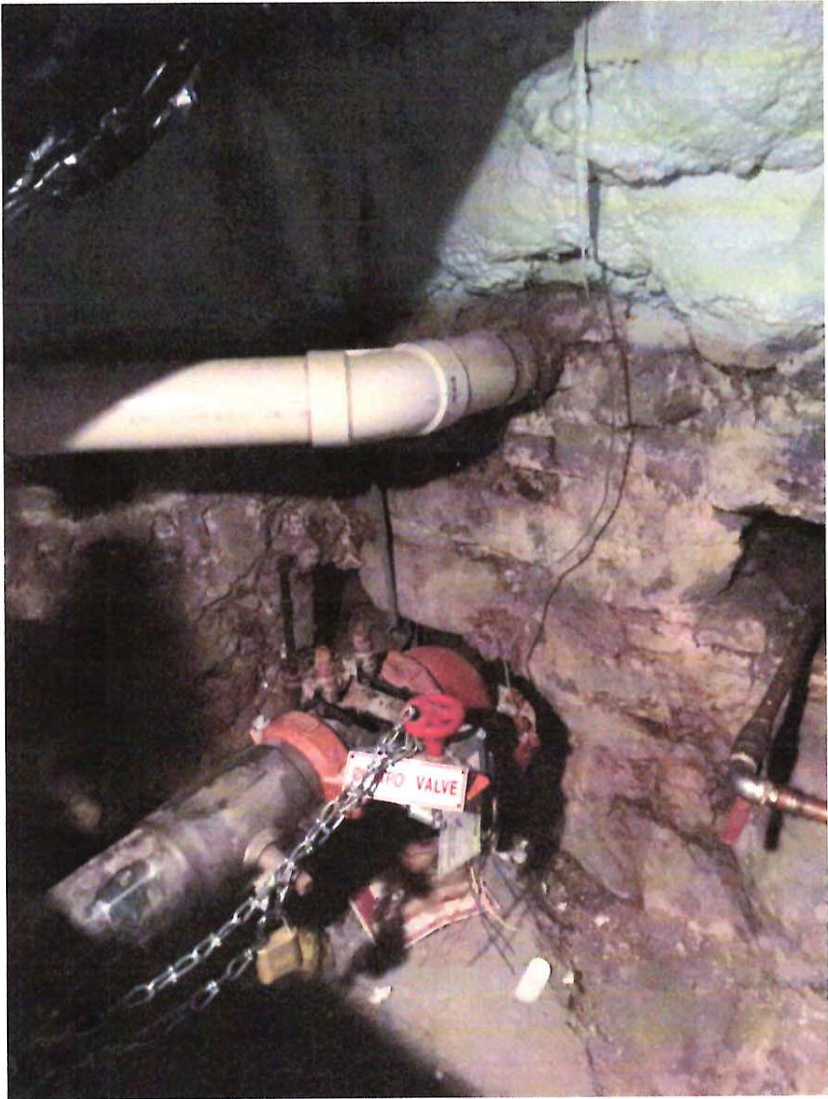
- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name



Comments:

9 W. Main



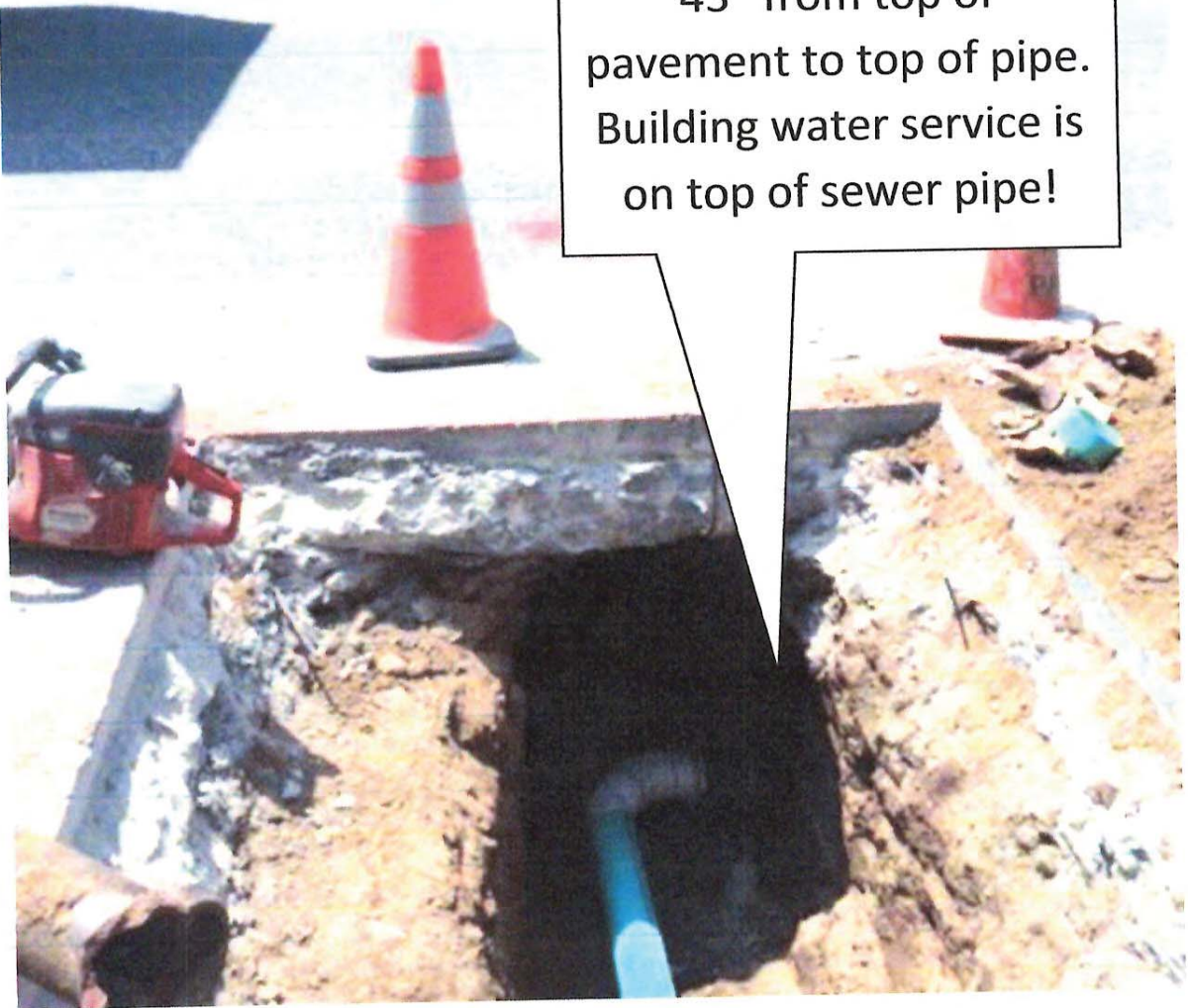


9 West Main

9 West Main



43" from top of
pavement to top of pipe.
Building water service is
on top of sewer pipe!



**PROPERTY INFORMATION
DATA SHEET**

Owner Name: Lilias Hart Date of On-Site Visit 6/28/17
First Last
Date of Follow-up Visit _____
Street Address: 11 W. Main Contact Person Lilias

BASEMENT OBSERVATIONS

☐ Full Height ☐ Crawl Space
Floor: ☐ Concrete ☐ Earth
☒ No Basement
☐ Mobil Home
Sump Pumps? ☐ Yes ☐ No
ft. in.: from top of Foundation wall to floor.

WALLS

☐ Poured Concrete ☐ Stone
☐ Concrete Blocks ☐ Other _____
Any Floor Drains? ☐ Yes ☐ No

Where does water line enter building?

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub
☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☐ Does it go out a basement wall?
If yes: _____ ft. _____ in.: from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☐ No

If yes, mark location on sketch plan.

☒ Ask owner what direction sewer pipe leaves the building. Show on sketch.

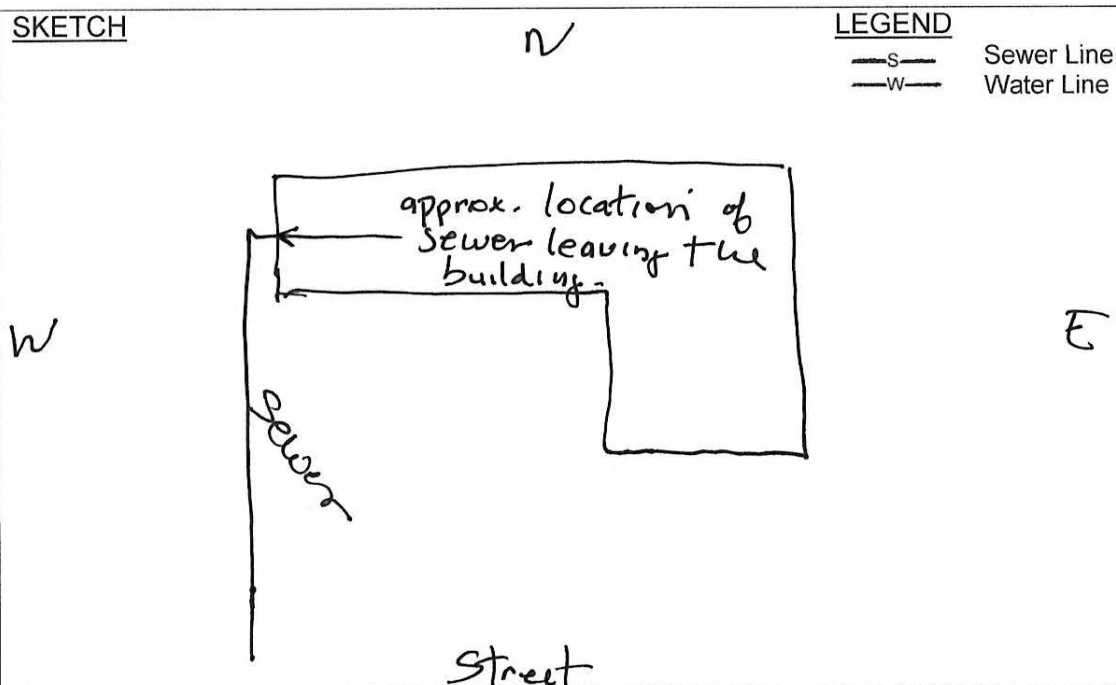
SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☐ 4-in; ☐ ____-in

SEWER DRAIN PIPE MATERIAL:

☐ Cast Iron ☐ Orangeberg
☐ Vertified Clay ☐ Other _____
☐ PVC (Plastic)

SKETCH



LEGEND

—S— Sewer Line
—W— Water Line

Show measurement for locations of:

- Sewer exiting building
- Water line entering building

Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name

Comments:

11 W. Main



TOWN OF WILMINGTON
CWI ASSET MANAGEMENT GRANT 2016-CWI-AMP-10

**PROPERTY INFORMATION
DATA SHEET**

Owner Name: Town of Wilmington Memorial Hall Date of On-Site Visit 4/28/17
First Last
Street Address: 14 East Main Date of Follow-up Visit _____
Contact Person Brandon Brasser

BASEMENT OBSERVATIONS

☐ Full Height ☐ Crawl Space
Floor: ☐ Concrete ☐ Earth
☒ No Basement
☐ Mobil Home
Sump Pumps? ☐ Yes ☐ No
_____ ft. _____ in.: from top of Foundation wall to floor.

WALLS

☐ Poured Concrete ☐ Stone
☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☐ No
Where does water line enter building?

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub
☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☐ Does it go out a basement wall?
If yes: _____ ft. _____ in.: from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☐ No
If yes, mark location on sketch plan.

☐ Ask owner what direction sewer pipe leaves the building. Show on sketch.

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☐ 4-in; ☐ _____-in

SEWER DRAIN PIPE MATERIAL:

☐ Cast Iron ☐ Orangeberg
☐ Vertified Clay ☐ Other _____
☐ PVC (Plastic)

SKETCH

LEGEND

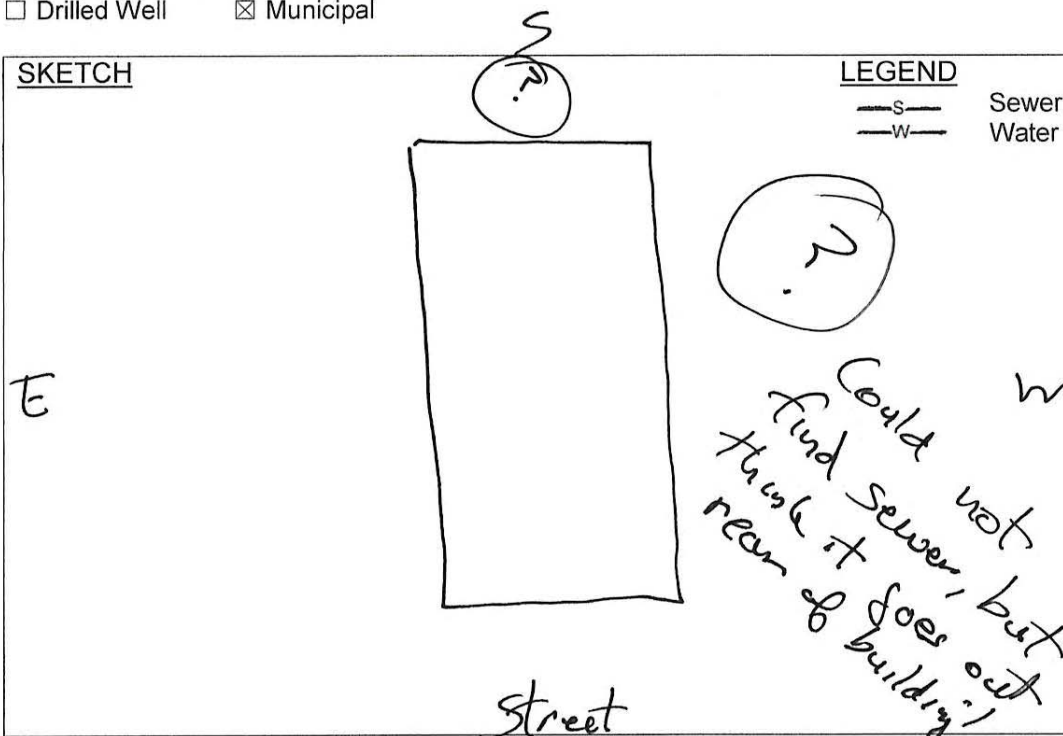
—S— Sewer Line
—W— Water Line

Show measurement for locations of:

- Sewer exiting building
- Water line entering building

Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name



Comments:

Representative thinks the sewer comes ~~from~~ out the SW corner/side of the building, but not sure. Hopefully camera inspection will confirm.

**PROPERTY INFORMATION
DATA SHEET**

Owner Name: VT House
First Last

Date of On-Site Visit 7/18/17

Street Address: 15 W Main

Date of Follow-up Visit _____
Contact Person Nick Squire

BASEMENT OBSERVATIONS

☒ Full Height ☐ Crawl Space

Floor: ☐ Concrete ☒ Earth

☐ No Basement

☐ Mobil Home

Sump Pumps? ☐ Yes ☒ No

6 ft 8 in. from top of Foundation wall to floor.

WALLS

☒ Poured Concrete ☒ Stone

☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☒ No

Where does water line enter building?

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub

☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☒ Does it go out a basement wall?

If yes: 6 ft. 2 in. from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☒ No

If yes, mark location on sketch plan.

☐ Ask owner what direction sewer pipe leaves the building. Show on sketch.

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ ____-in

SEWER DRAIN PIPE MATERIAL:

☐ Cast Iron

☐ Orangeberg

☐ Vertified Clay

☐ Other _____

☐ PVC (Plastic)

through wall

S (front)

S

SKETCH

LEGEND

—S— Sewer Line
—W— Water Line

Sewer Line
Water Line

Show measurement for locations of:

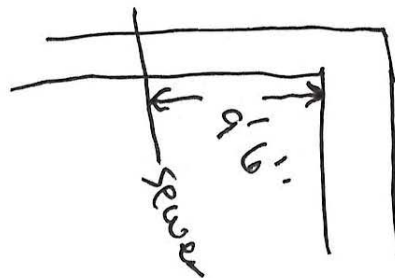
- Sewer exiting building
- Water line entering building

Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name

Comments:

Street





15
W. Main

15 W. Main



TOWN OF WILMINGTON
CWI ASSET MANAGEMENT GRANT 2016-CWI-AMP-10

**PROPERTY INFORMATION
DATA SHEET**

Owner Name: Cindy Beaudette
First Last

Date of On-Site Visit 7/19/17
~~6/20/17~~

Street Address: 16 W. Main

Date of Follow-up Visit _____
Contact Person employee

BASEMENT OBSERVATIONS

☒ Full Height ☐ Crawl Space

Floor: ☐ Concrete ☒ Earth

☐ No Basement

☐ Mobil Home

Sump Pumps? ☐ Yes ☒ No

6 ft. 6 in.: from top of Foundation wall to floor.

WALLS

☐ Poured Concrete ☒ Stone

☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☐ No

Where does water line enter building? N end

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub

☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☒ Does it go out a basement wall?

If yes: 41 ft. 1 in.: from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☒ No

If yes, mark location on sketch plan.

☒ Ask owner what direction sewer pipe leaves the building. Show on sketch. NE corner

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ ____-in

SEWER DRAIN PIPE MATERIAL:

☒ Cast Iron

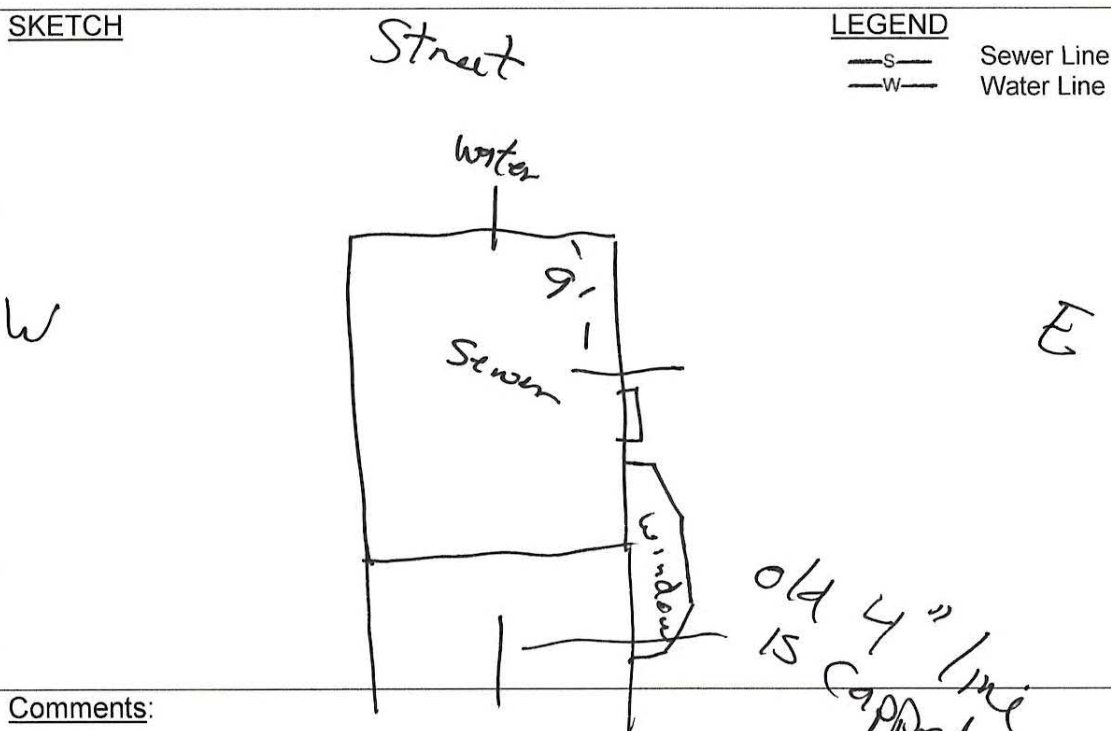
☐ Orangeberg

☐ Vertified Clay

☐ Other _____

☐ PVC (Plastic)

SKETCH



LEGEND

—S— Sewer Line
—W— Water Line

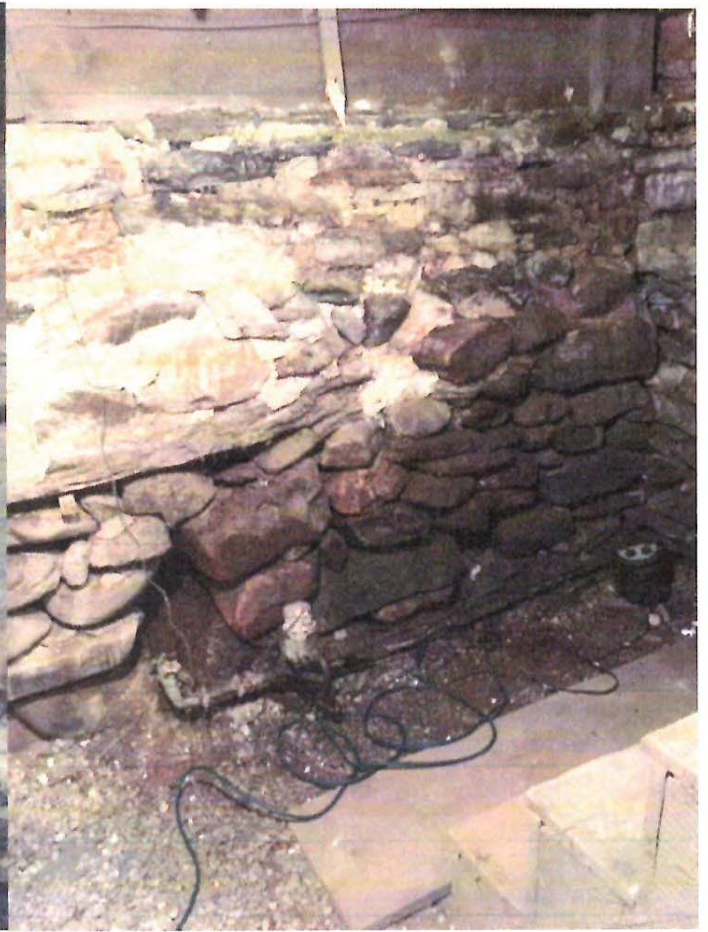
Show measurement for locations of:

- Sewer exiting building
- Water line entering building

Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name

Comments:



16
W.
Main

16 W. Main

~~14 W. Main~~



WEST MAIN STREET

SIDEWALK

16 WEST MAIN
INCURABLE ROMANTIC

*approx. !
location*

Stone wall

← 0' →

← 3' →

← 12' 6" →

MEMORIAL
HALL

benches

BARN

8" SEWER MAIN

Dug up!

← 19' →

CONCRETE SLAB

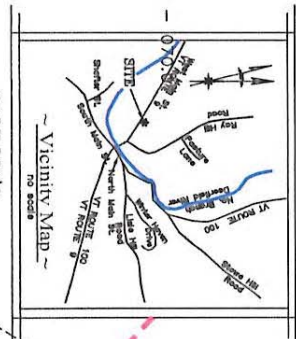
7' 6"

Light Pole

27'

16' 4"

Wilm. Sewer District - MH W-5
Rim Elevation @ 1508.6
Invert Elev. @ 1502.10' thru MH
Manhole @ Sta. 10 + 0



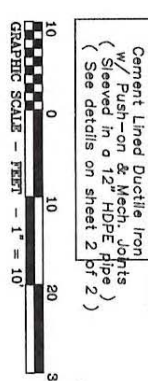
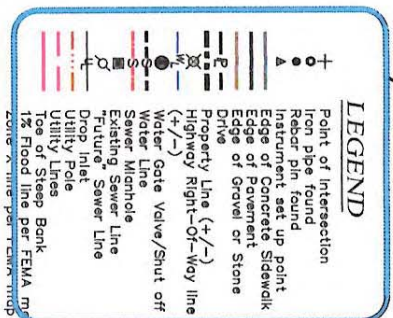
Parcel ID# 020 - 20 - 070.0
0.2 acres +/-

Parcel ID# 020 - 20 - 074.0
0.2 acres +/-

Parcel ID# 020 - 20 - 072.0
0.1 acres +/-

Parcel ID# 020 - 20 - 073.0
0.1 acres +/-

Vermont House Building
Water Supply Design Usage Proposed
Proposed 10 Room Hotel w/ 40 sleeping spaces @ 50 gal./person/day = 2000 gpd
Proposed Apartment w/ 3 bedroom (6 people) @ 75 gal./person/day = 450 gpd
Proposed Laundry for Linens - 1 Machine @ 500 gal./person/day = 500 gpd
TOTAL MAXIMUM WATER DESIGN FLOW FOR BUILDING = 2950 gallons/day



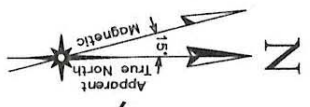
Prepared by
Brid Lasey
For:
Merrill A. Mundell, Jr.
P.E. & L.S.

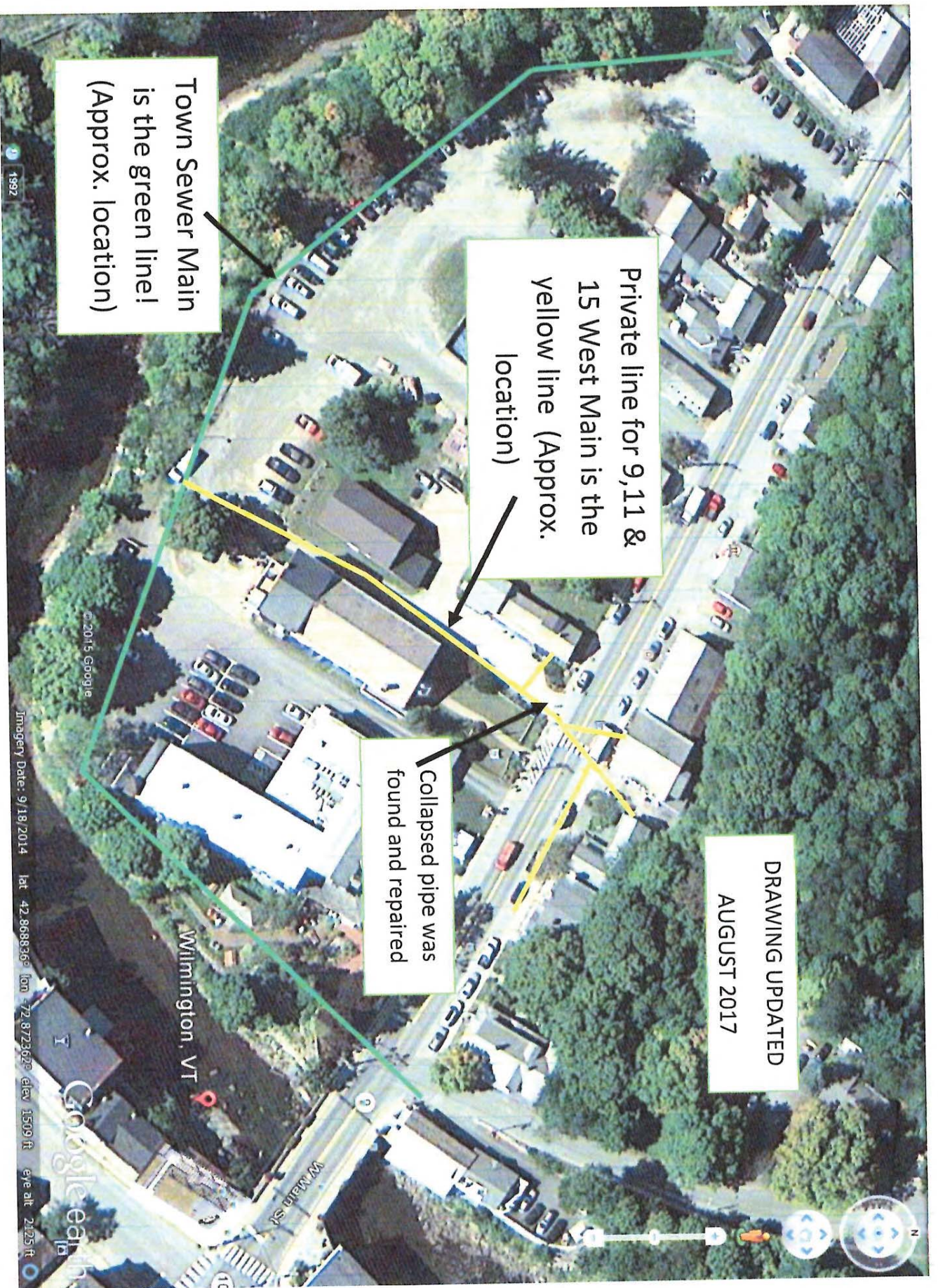
For
As-Built Water Supply Plan
DUPUIS CARPENTRY, LLC
the Vermont House Bldg
West Main Street, Winooski, Vermont
by
Merrill A. Mundell, Jr., P.E.
P.O. Box 65620, Cedar Park Road
Winooski, Vermont 05363-0565
Tel: 802/454-2025 - email: munda@vermont.net

Note: This is NOT A SURVEY as defined under 26 V.S.A. section 2544. This plan was derived using limited field measurements, topography of some roads, and maps. It is subject to corrections and refinement resulting from a survey as defined under the above statute. This plan is NOT to be used for conveying of property. This plan may be filed in the public records to provide topographic features in reference to the creation of a conveyance.

EXISTING
BUILDING
9 WEST MAIN
BUILDING

N/F
Cameo Builders, LLC
Parcel ID# 020 - 20 - 073.0
0.1 acres +/-
Note: Parcel is subject to a State W-1 #WW - 2 - 0563-A, dated Sept. 28, 2012





Town Sewer Main
is the green line!
(Approx. location)

Private line for 9, 11 &
15 West Main is the
yellow line (Approx.
location)

Collapsed pipe was
found and repaired

DRAWING UPDATED
AUGUST 2017

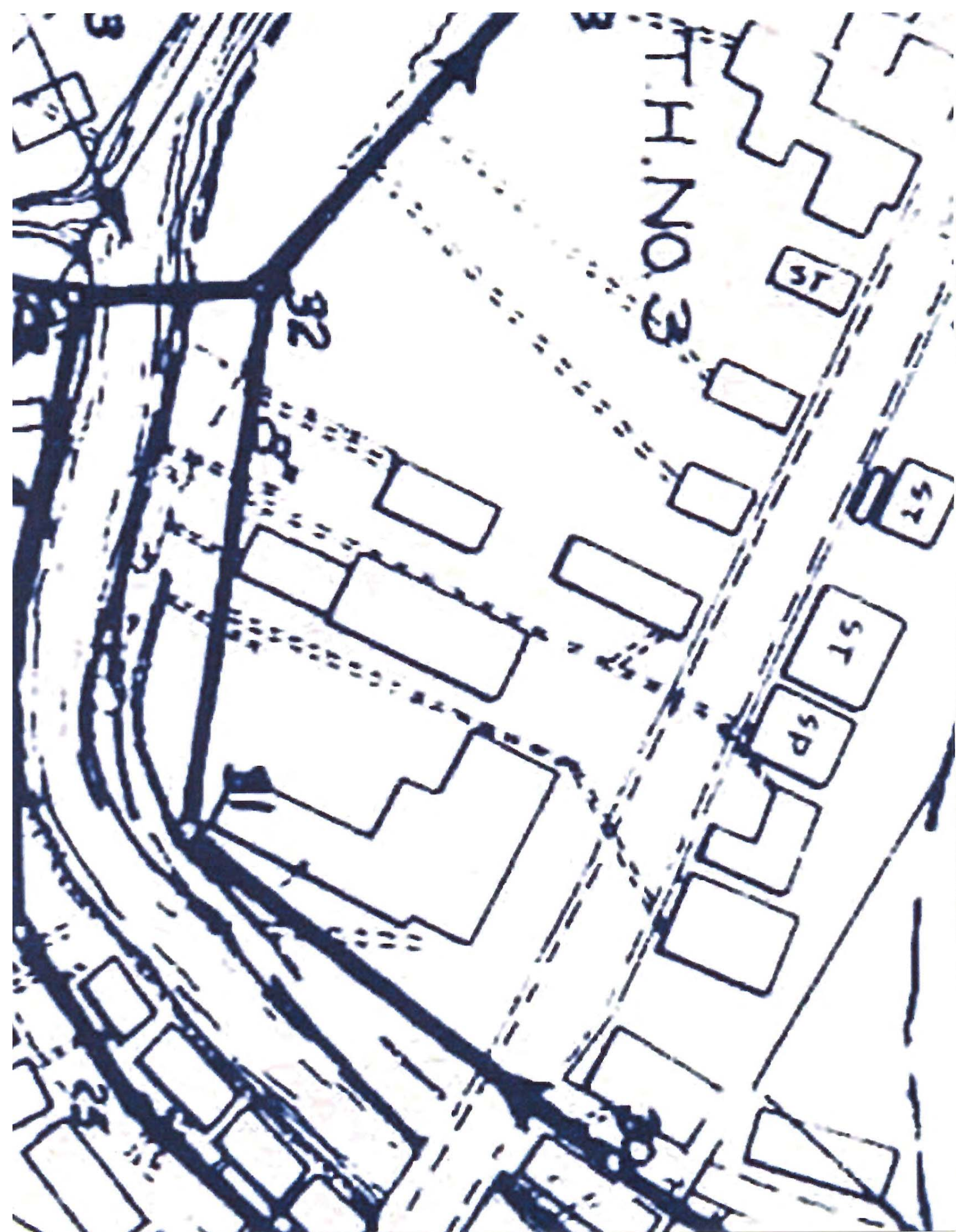
1992

Imagery Date: 9/18/2014 lat 42.868836 lon -72.872362 elev 11509 ft eye alt 2125 ft

Google Earth

Wilmington, VT

W Main St



911	TAX MAP	NAME	ADDRESS	CITY	STATE	ZIP
27	02122027.000	RICHARDS MARK W & ELIZABETH P	PO BOX 820	BRATTLEBORO	VT	05302-0820
28	02121042.000	BOYD LAURIE MAE	PO BOX 1437	WILMINGTON	VT	05363-1437
29	02122020.000	VERMONT NAT'L BANK	C/O PEOPLES BK PO BOX 820 RES RT	BURLINGTON	VT	05402-0620
34	02121076.000	FAMILIES FIRST IN SOUTHERN VERMONT INC	48 NORTH MAIN ST PO BOX 939	WILMINGTON	VT	05363-0939
36	02121077.000	SULLIVAN EDWARD F & JULIE	PO BOX 932	WILMINGTON	VT	05363-0932
37	02122029.000	KENNEDY JOHN K & CHRISTINE R	PO BOX 1287	WILMINGTON	VT	05363-1287
38	02121078.000	LOUDERBACK STANLEY E & JUDITH S	PO BOX 936	WILMINGTON	VT	05363-0936
39	02122030.000	RILEY ELIZABETH D REVOC TRUST	C/O MILLIE BUTLER / MATHEU DR	WESTBORO	MA	01581
40	02121079.000	GRINOLD ROBERT	210 RTE 9 E	WILMINGTON	VT	05363
44	02121080.000	SHEA FUNERAL HOMES INC	PO BOX 1578	BENNINGTON	VT	05201-0957
48	02121081.000	CAVALIERE THOMAS & LORRAINE	PO BOX 957	BRATTLEBORO	VT	05304-0116
59	02122032.000	ST JOHN SAM, TRUSTEE	27 VIRGINIA RAIL DR	BRATTLEBORO	VT	05304-0116

✓ Sue Families / st Tues 6/27/17 9:00 A.M.
 ✓ Judith Louderback Tues 6/27/17 9:15 A.M.
 ✓ Post Office 6/28/17 9:00 A.M.
 ✓ Bob Grindold 6/28/17 9:15 A.M.

✓ Richards Group
 Art 802-254-1580



Google Earth

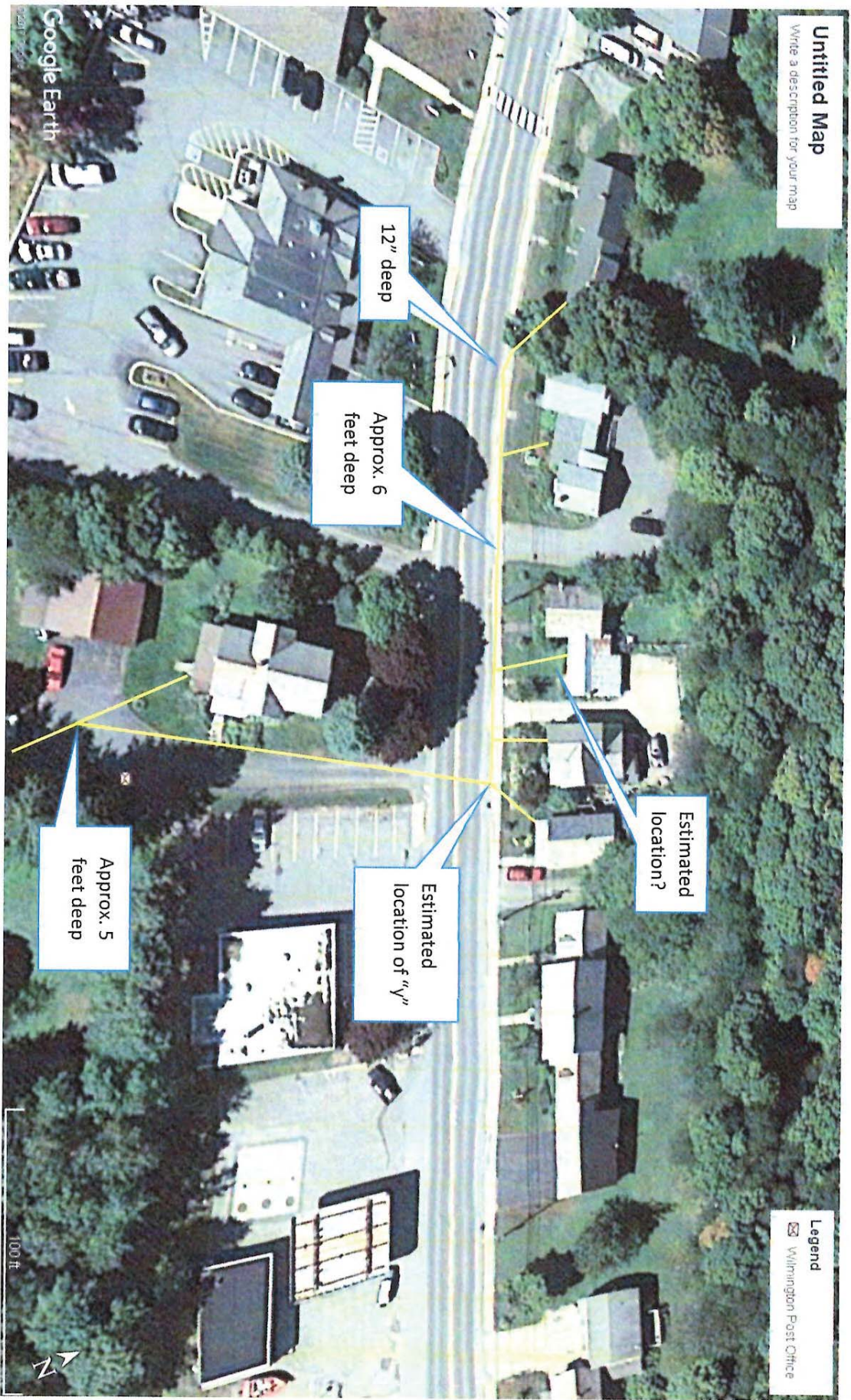
Property Data: 9/10/2014 18 T 674116.97m E 4740180.36 m N elev: 1536 ft eye alt: 2525 ft



Google Earth

Imagery Date: 9/18/2014 18° 1' 6.94112° N 74° 48' 20.29° W elev. 1544 ft. eye alt. 1999 ft.

East Main 2



**PROPERTY INFORMATION
DATA SHEET**

Owner Name: Laurre Boyd
First Last

Date of On-Site Visit 6/30/17

Date of Follow-up Visit _____

Street Address: 28 E Main

Contact Person Lauri

BASEMENT OBSERVATIONS

☒ Full Height ☐ Crawl Space

Floor: ☐ Concrete ☒ Earth

☐ No Basement

☐ Mobil Home

Sump Pumps? ☐ Yes ☐ No

6 ft. 5 in. from top of Foundation wall to floor.

WALLS

☐ Poured Concrete ☒ Stone

☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☐ No

Where does water line enter building? SE end

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub

☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☒ Does it go out a basement wall?

If yes: 27 ft. in. from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☒ No

If yes, mark location on sketch plan.

☐ Ask owner what direction sewer pipe leaves the building. Show on sketch. SE side

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ -in

SEWER DRAIN PIPE MATERIAL:

☒ Cast Iron ☐ Orangeberg

☐ Vertified Clay

☒ PVC (Plastic)

through wall outside

SKETCH

LEGEND

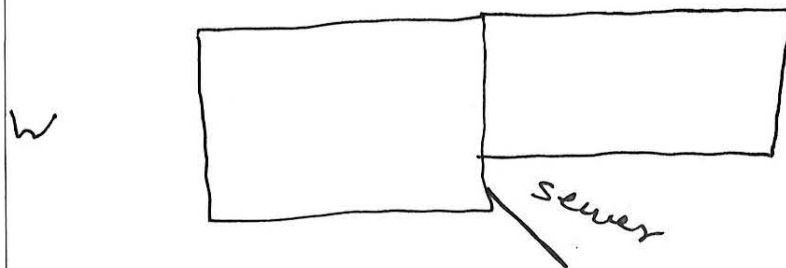
—S— Sewer Line
—W— Water Line

Show measurement for locations of:

- Sewer exiting building
- Water line entering building

Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name



Comments:



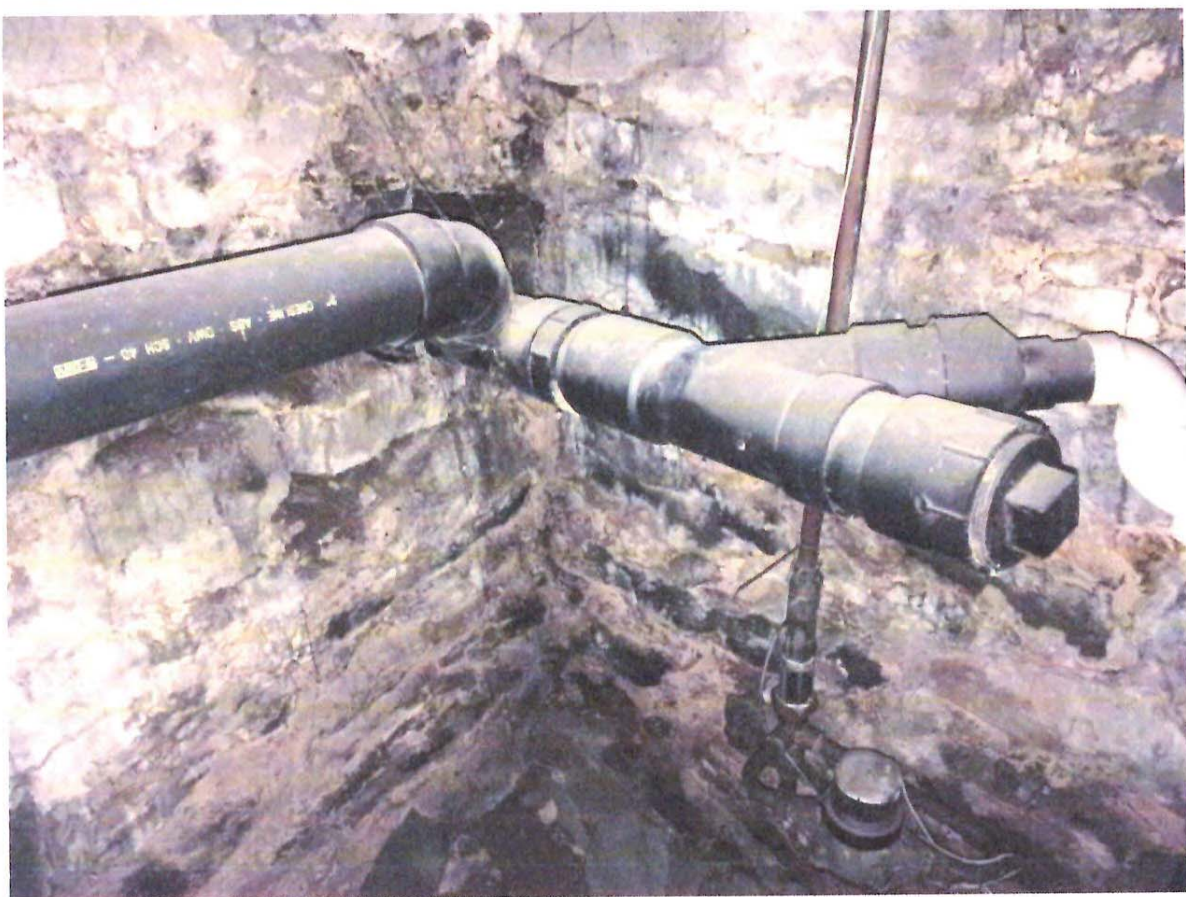
28 E main



28 E Main



28 E main



28 E main

**PROPERTY INFORMATION
DATA SHEET**

Owner Name: Families First
First Last

Date of On-Site Visit 6/27/17

Date of Follow-up Visit _____

Street Address: 34 East main

Contact Person: Sue Graup

BASEMENT OBSERVATIONS

☒ Full Height ☐ Crawl Space

Floor: ☒ Concrete ☐ Earth

☐ No Basement

☐ Mobil Home

Sump Pumps? ☐ Yes ☒ No

6 ft. 3 in.: from top of Foundation wall to floor.

WALLS

☐ Poured Concrete ☒ Stone *Insulated*

☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☒ No

Where does water line enter building? E wall

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub

☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☐ Does it go out a basement wall? *Y*

If yes: 3 ft. 8 in.: from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☒ No

If yes, mark location on sketch plan.

☐ Ask owner what direction sewer pipe leaves the building. Show on sketch.

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ ____-in

SEWER DRAIN PIPE MATERIAL:

☐ Cast Iron

☐ Orangeberg

☐ Vertified Clay

☐ Other _____

☒ PVC (Plastic)

SKETCH

LEGEND

—S—
—W—

Sewer Line
Water Line

**Show measurement
for locations of:**

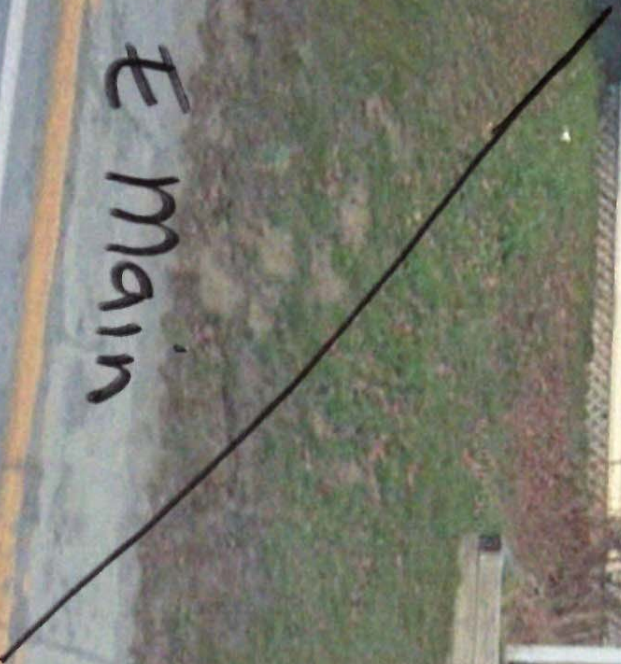
- Sewer exiting building
- Water line entering building

Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name

Comments:

34 E Main





34 E Main

**PROPERTY INFORMATION
DATA SHEET**

Owner Name: Ed + Julie Sullivan
First Last

Date of On-Site Visit 6/29/17

Street Address: 36 E. Main

Date of Follow-up Visit _____

Contact Person Julie

BASEMENT OBSERVATIONS

☒ Full Height ☒ Crawl Space

Floor: ☐ Concrete ☒ Earth

☐ No Basement

☐ Mobil Home

Sump Pumps? ☐ Yes ☐ No

_____ ft. _____ in.: from top of Foundation wall to floor.

WALLS

☐ Poured Concrete ☒ Stone

☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☐ No

Where does water line enter building?

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub

☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☐ Does it go out a basement wall? ?

If yes: _____ ft. _____ in.: from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☐ No ?

If yes, mark location on sketch plan.

☐ Ask owner what direction sewer pipe leaves the building. Show on sketch.

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ _____-in

SEWER DRAIN PIPE MATERIAL:

☒ Cast Iron

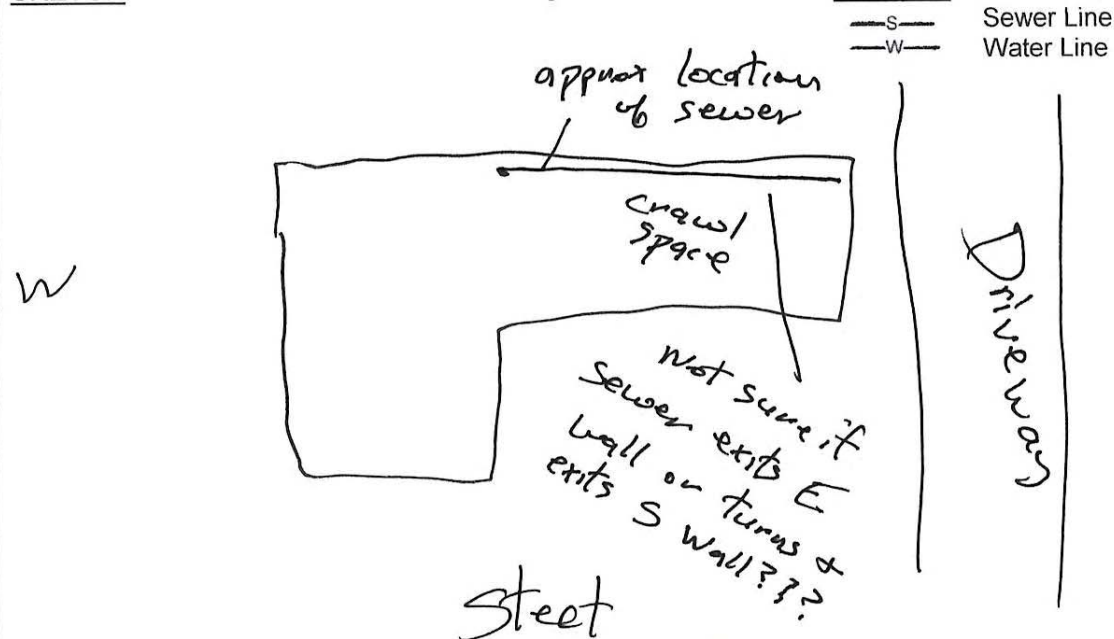
☐ Orangeberg

☐ Vertified Clay

☐ Other _____

☐ PVC (Plastic)

SKETCH



Show measurement for locations of:

- Sewer exiting building
- Water line entering building

Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name

Comments:



36 E Main

Google Earth

38° 7' 0.4125511 N 142° 48' 24.638 W elev 1545 ft eye alt 1

34 E main



**PROPERTY INFORMATION
DATA SHEET**

Owner Name: John Kennedy
First Last
Street Address: 37 E Main

Date of On-Site Visit 6/29/17
Date of Follow-up Visit _____
Contact Person John
464-5194

BASEMENT OBSERVATIONS

- ☒ Full Height ☐ Crawl Space
Floor: ☒ Concrete ☐ Earth
☐ No Basement
☐ Mobil Home
Sump Pumps? ☐ Yes ☒ No
ft. in.: from top of Foundation wall to floor.

WALLS

- ☐ Poured Concrete ☒ Stone
☐ Concrete Blocks ☐ Other _____
Any Floor Drains? ☐ Yes ☐ No
Where does water line enter building? N Wall

BASEMENT WATER FIXTURES

- ☐ Wash Bowl(s) ☐ Shower/tub
☐ Toilet ☐ Mop Sink

WATER SUPPLY

- ☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

- ☐ Does it go out a basement wall?
If yes: 7 ft. 4 in.: from top of Pipe at wall to
top of Foundation wall.

Does it go out through the door? ☒ Yes ☐ No

If yes, mark location on sketch plan.

- ☐ Ask owner what direction sewer pipe leaves the
building. Show on sketch.

SEWER DRAIN PIPE SIZE:

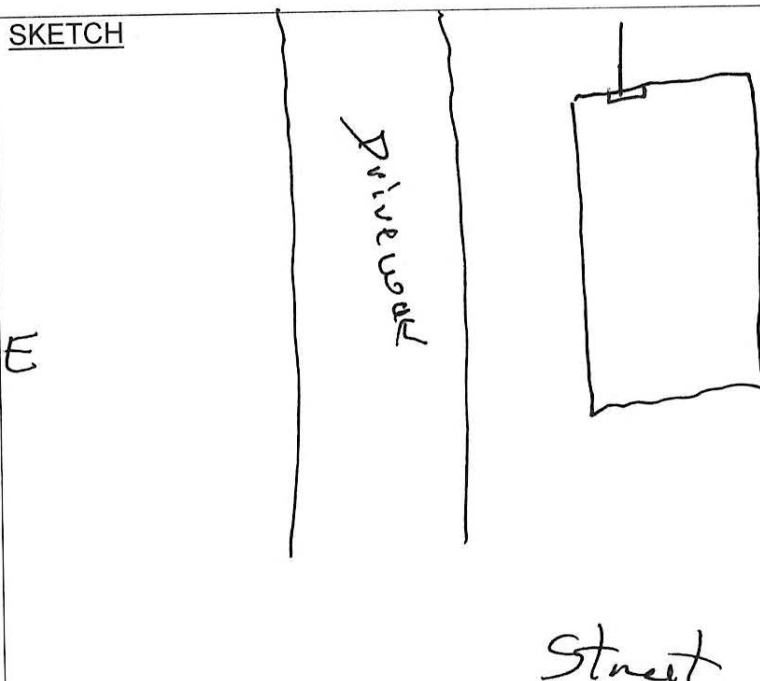
Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ ___-in

SEWER DRAIN PIPE MATERIAL:

- ☒ Cast Iron ☐ Orangeberg
☐ Vertified Clay ☐ Other _____
☐ PVC (Plastic)

sewer pipe is at floor
level

SKETCH



LEGEND

—S— Sewer Line
—W— Water Line

**Show measurement
for locations of:**

- Sewer exiting building
- Water line entering building

Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name

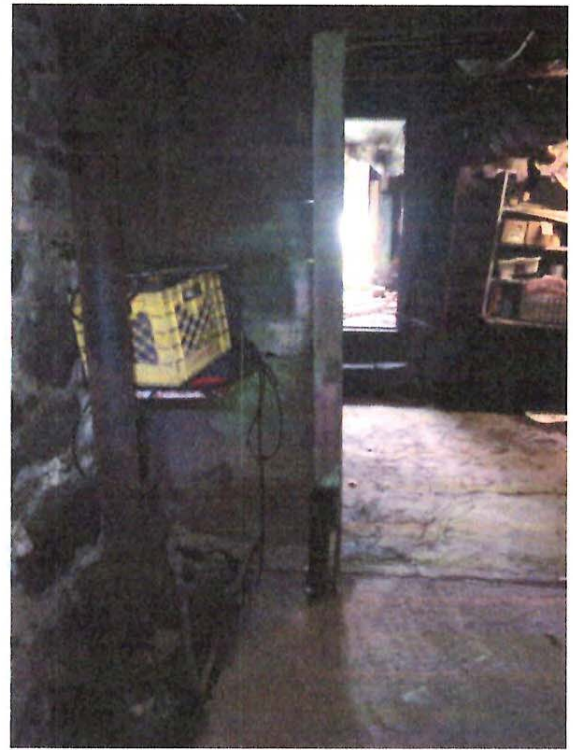
Comments:

37 E main

© 2016 Google

© 2017 Google





37 E main



EAST MAIN STREET

37 EAST MAIN STREET

Basement
Door →

Driveway

Garage

41'

32'

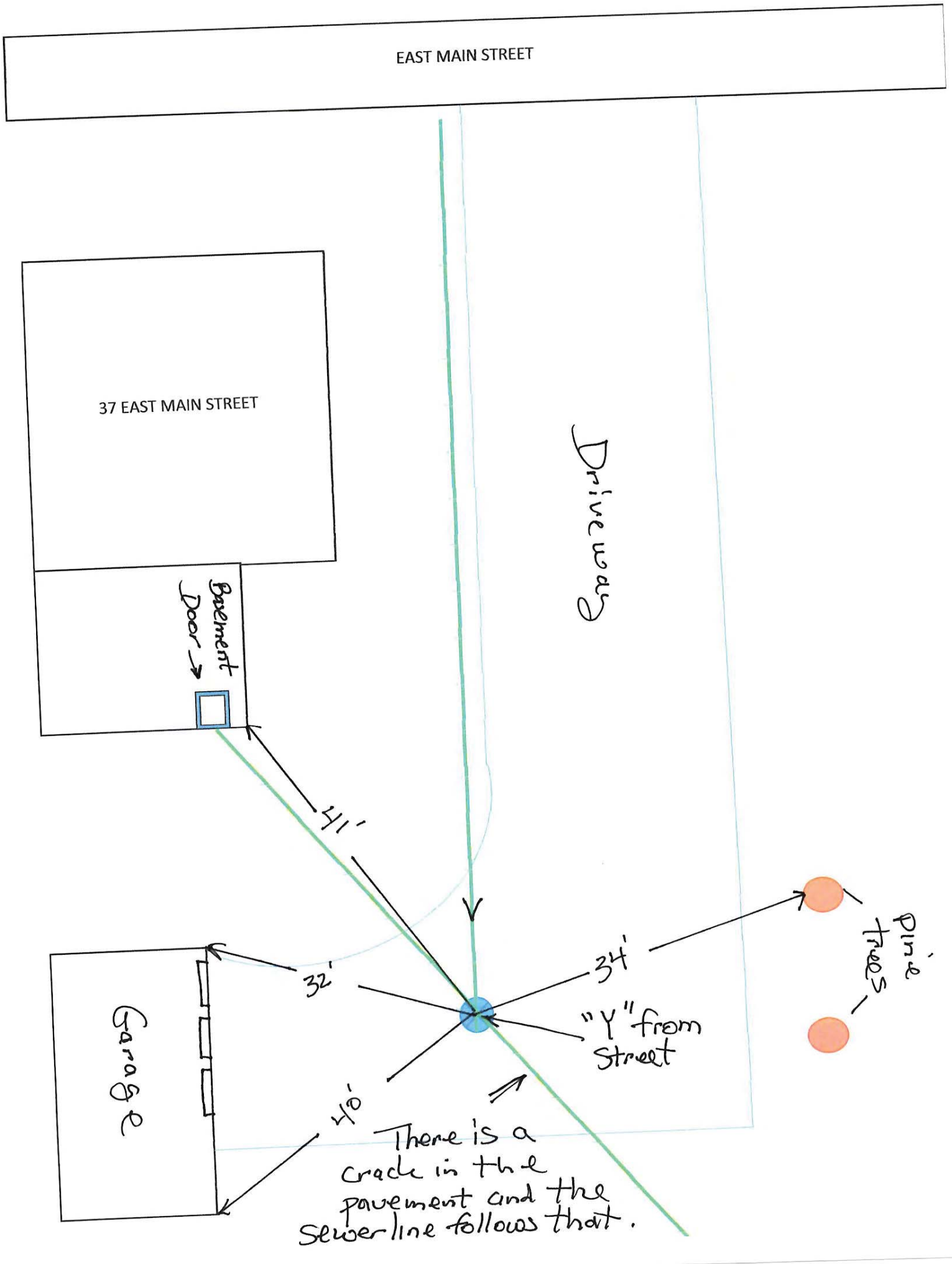
40'

34'

"Y" from
Street

Pine
trees

There is a
crack in the
pavement and the
sewer line follows that.



**PROPERTY INFORMATION
DATA SHEET**

Owner Name: Judith Louderback
First Last

Date of On-Site Visit 6/27/17

Street Address: 38 E Main

Date of Follow-up Visit _____

Contact Person Judith Louderback

BASEMENT OBSERVATIONS

☒ Full Height ☐ Crawl Space

Floor: ☐ Concrete ☒ Earth

☐ No Basement

☐ Mobil Home

Sump Pumps? ☐ Yes ☒ No

6 ft. 3 in. from top of Foundation wall to floor.

WALLS

☐ Poured Concrete ☒ Stone

☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☒ No

Where does water line enter building?

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub

☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☐ Does it go out a basement wall?

If yes: _____ ft. _____ in. from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☒ No

If yes, mark location on sketch plan.

☒ Ask owner what direction sewer pipe leaves the building. Show on sketch.

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ _____-in

SEWER DRAIN PIPE MATERIAL:

☒ Cast Iron ☐ Orangeberg

☐ Vertified Clay

☐ PVC (Plastic)

no, through floor

S. Wall

*West wall
about 1/2 way
between 2
outside windows*

*7'6" in from W. Wall
approx.*

SKETCH

LEGEND

—s— Sewer Line
—w— Water Line

Show measurement for locations of:

- Sewer exiting building
- Water line entering building

Show locations:

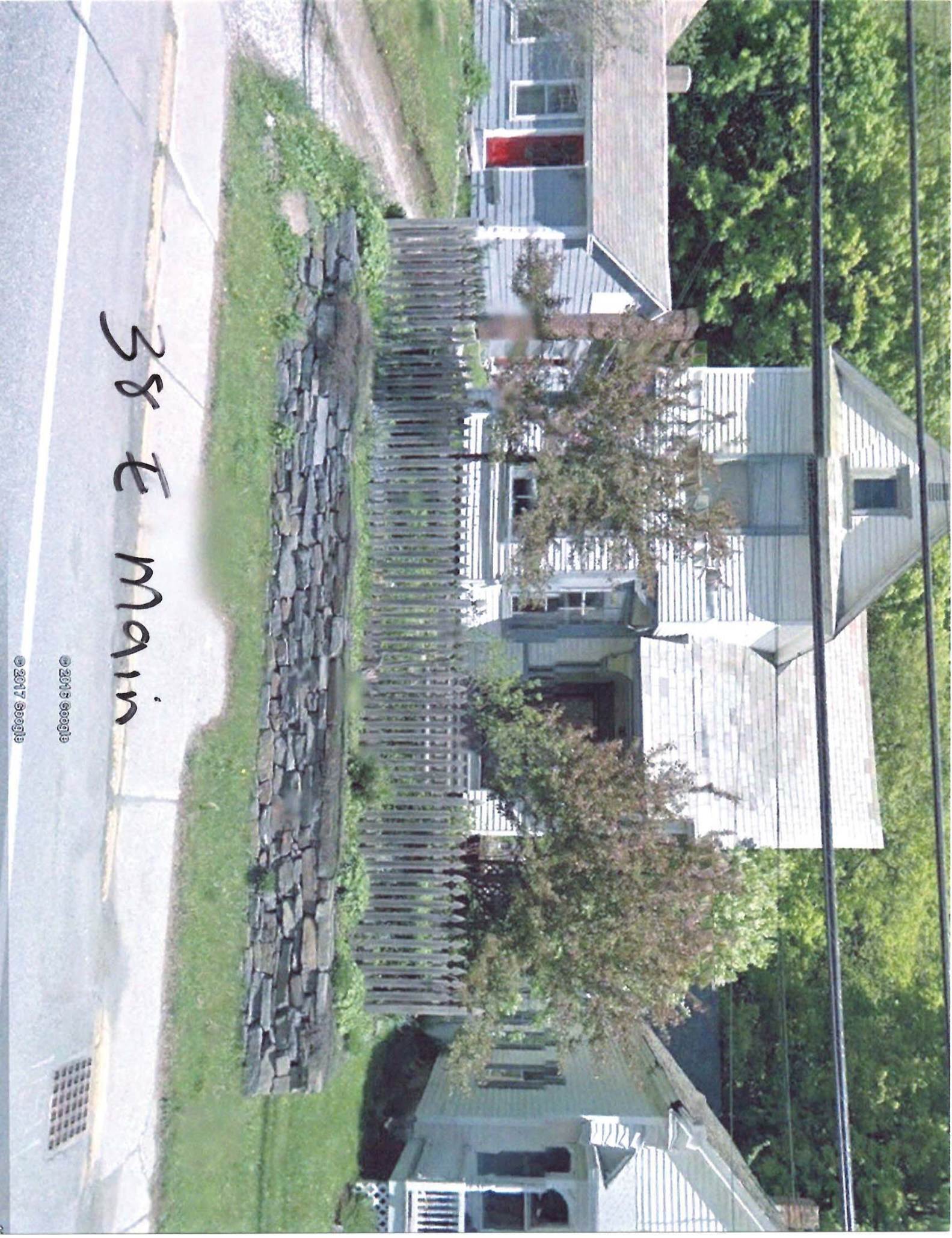
- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name

Comments:

38 E Main

© 2015 Google

© 2017 Google

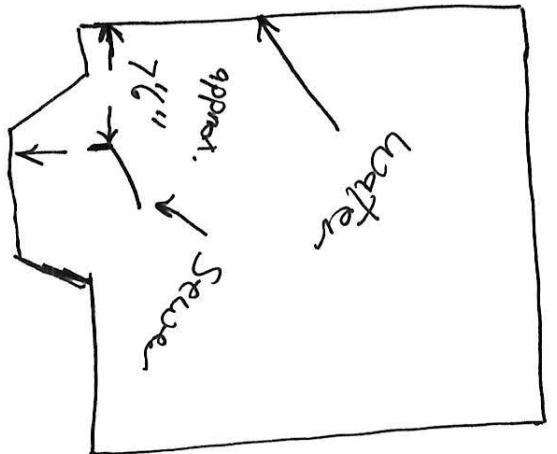


38 E Main

38 E Main
backdoor

Sever leaves
building on S.
wall at floor
level.

Driveway



Sidewalk

RT 9 E

38 E main



TOWN OF WILMINGTON
CWI ASSET MANAGEMENT GRANT 2016-CWI-AMP-10

**PROPERTY INFORMATION
DATA SHEET**

Owner Name: Bob Grinold
First Last

Date of On-Site Visit 6/28/17

Date of Follow-up Visit _____

Street Address: 40 E. Main

Contact Person _____

BASEMENT OBSERVATIONS

☒ Full Height ☐ Crawl Space

Floor: ☐ Concrete ☒ Earth

☐ No Basement

☐ Mobil Home

Sump Pumps? ☐ Yes ☒ No

6 ft. 0 in.: from top of Foundation wall to floor.

WALLS

☐ Poured Concrete ☒ Stone

☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☒ No

Where does water line enter building? SW Corner

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub ☒

☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☒ Does it go out a basement wall?

If yes: 4 ft. 5 in.: from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☒ No

If yes, mark location on sketch plan.

☐ Ask owner what direction sewer pipe leaves the building. Show on sketch. SW corner

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ ___-in

SEWER DRAIN PIPE MATERIAL:

☒ Cast Iron ☐ Orangeberg

☐ Vertified Clay

☐ PVC (Plastic)

☐ Other _____

SKETCH

N

W

Sewer

Street

LEGEND

—S— Sewer Line
—W— Water Line

Sewer Line
Water Line

Show measurement for locations of:

- Sewer exiting building
- Water line entering building

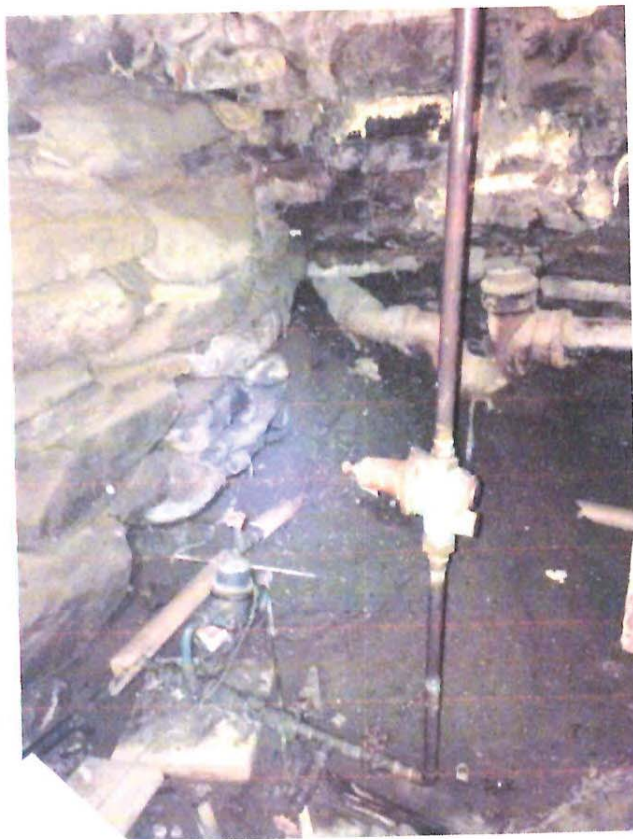
Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name

Comments:



40 E Main



40 E Main



**PROPERTY INFORMATION
DATA SHEET**

Owner Name: Funeral Home
First Last

Date of On-Site Visit 6/29/17

Date of Follow-up Visit _____

Street Address: 44 E Main

Contact Person Mark Shea

BASEMENT OBSERVATIONS

☒ Full Height ☐ Crawl Space

Floor: ☐ Concrete ☒ Earth

☐ No Basement

☐ Mobil Home

Sump Pumps? ☐ Yes ☐ No

6 ft. 3 in.: from top of Foundation wall to floor.

WALLS

☐ Poured Concrete ☒ Stone

☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☒ No

Where does water line enter building?

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub

☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☒ Does it go out a basement wall?

If yes: _____ ft. 47 in.: from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☐ No

If yes, mark location on sketch plan.

☐ Ask owner what direction sewer pipe leaves the building. Show on sketch.

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ ____-in

SEWER DRAIN PIPE MATERIAL:

☒ Cast Iron

☐ Orangeberg

☐ Vertified Clay

☐ Other _____

☐ PVC (Plastic)

Swall
32" E of window

32" E of window

SKETCH

LEGEND

—S— Sewer Line
—W— Water Line

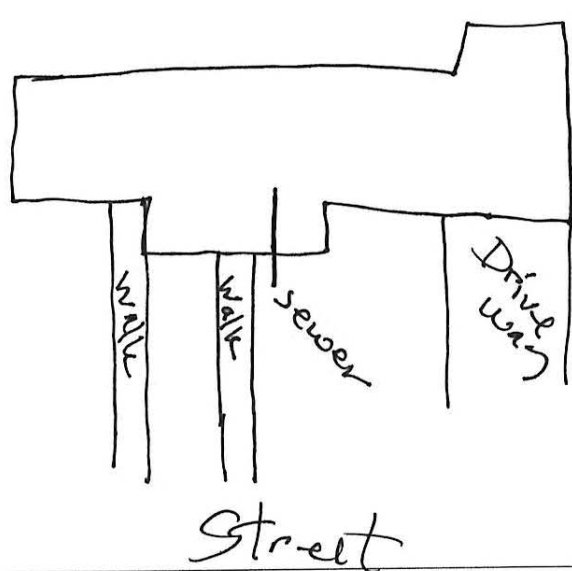
Sewer Line
Water Line

Show measurement for locations of:

- Sewer exiting building
- Water line entering building

Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name



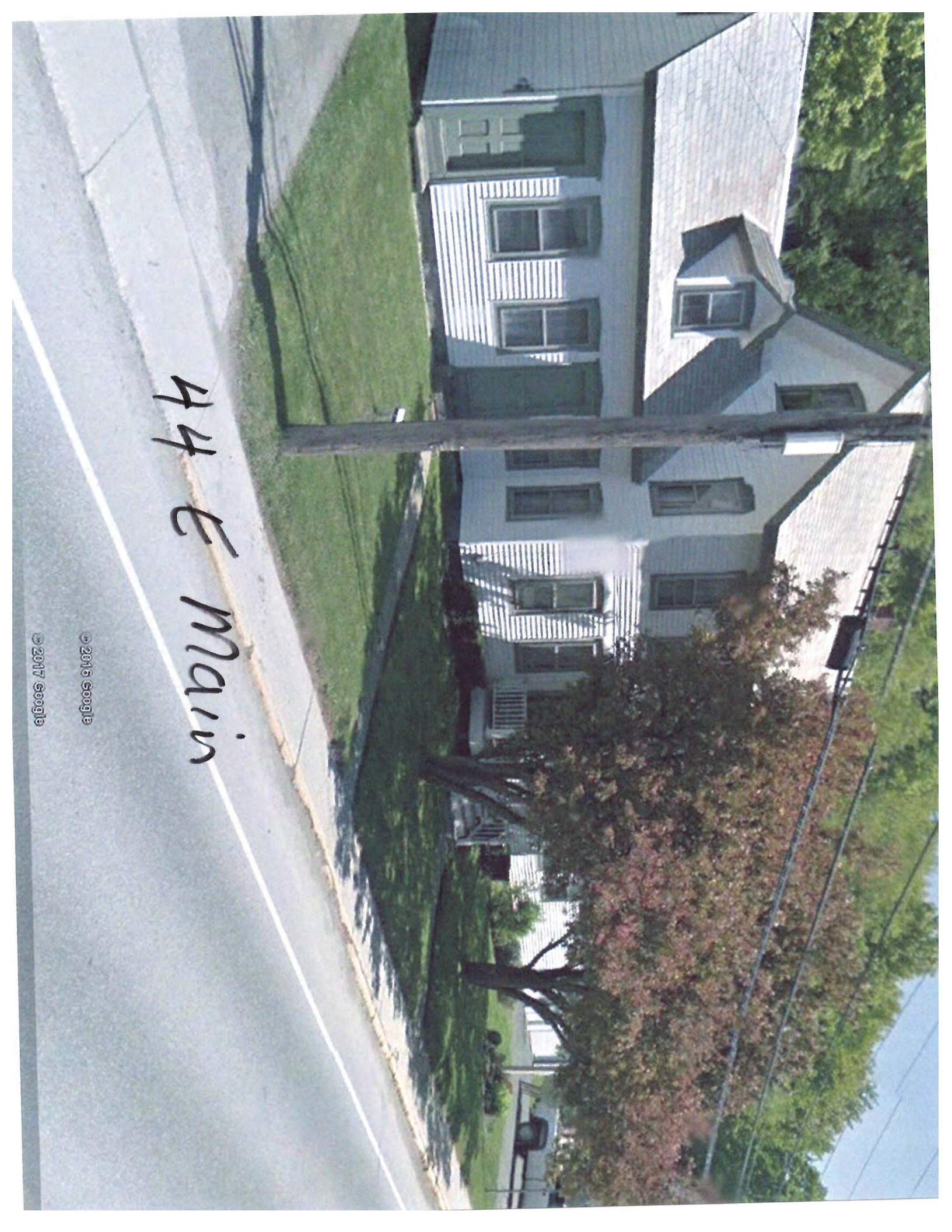
Comments:

Not connected to Town Sewer! Septic tank in front yard near main entrance walkway.

44 E Main

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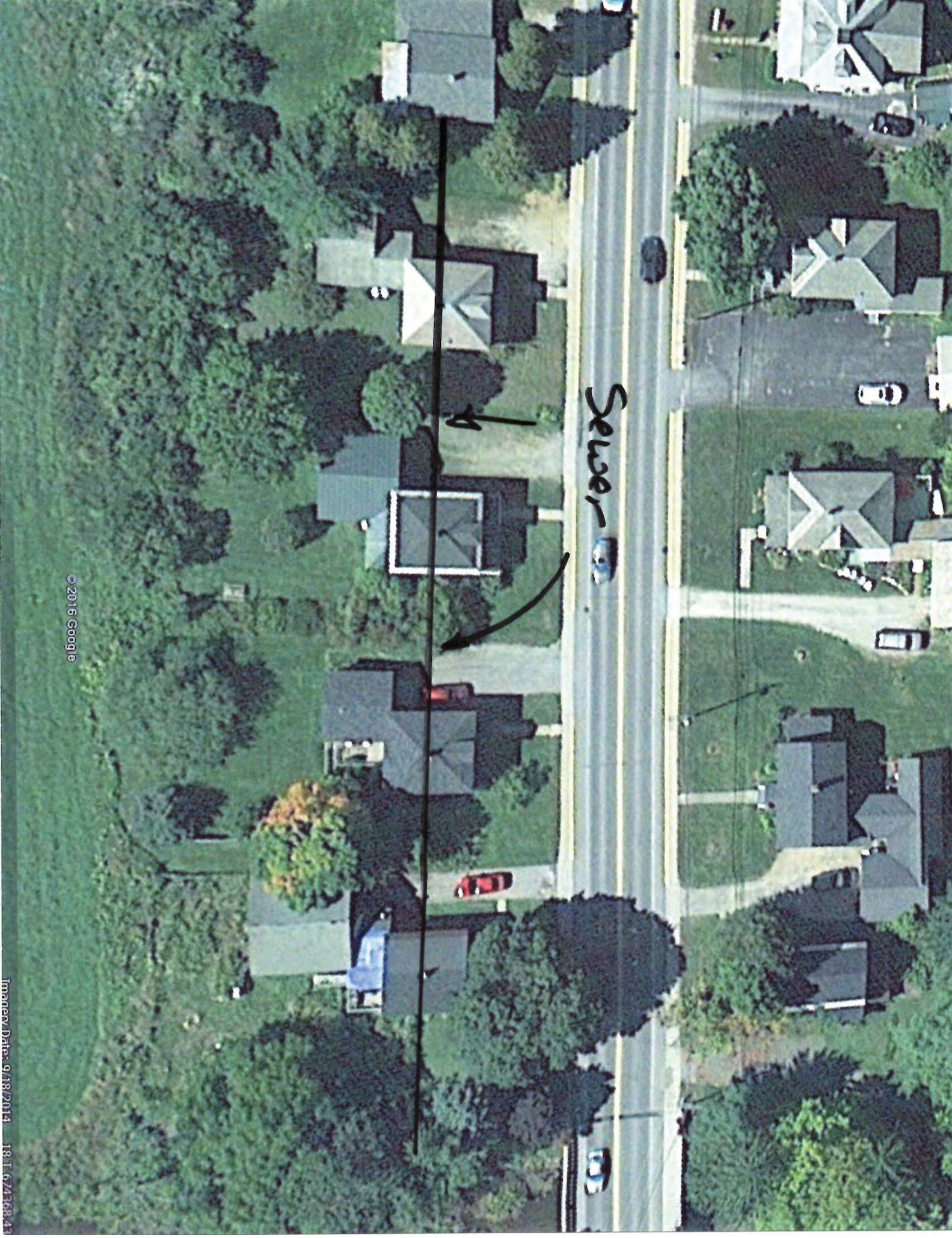
East Main 2

911	TAX MAP	NAME	ADDRESS	CITY	STATE	ZIP
63	02122034.000	DROZDOWSKI ANNA M	1202 PINE ST #1	PHILADELPHIA	PA	19107
65	02122035.000	CENTRAL APPLIANCE INC	PO BOX 591	WILMINGTON	VT	05363-0591
69	02122036.000	JACOBS PATRICIA A	541 HIGLEY HILL RD	WILMINGTON	VT	05363
71	02122037.000	JOHNSON PATRICIA	PO BOX 1501	WILMINGTON	VT	05363-1501
73	02122038.000	MANCHESTER JOHN Denise &	PO BOX 134	MANCHESTER CIR	VT	05255-0134

Andersen,

Denise Andersen denise.andersen79@gmail.com

Pat Jacobs Pjdell2003@aol.com



Sewer

TOWN OF WILMINGTON
CWI ASSET MANAGEMENT GRANT 2016-CWI-AMP-10

**PROPERTY INFORMATION
DATA SHEET**

Owner Name: Anna First Last

Date of On-Site Visit 7/17/17

Street Address: 63 East Main St.

Date of Follow-up Visit _____

Contact Person Anna

BASEMENT OBSERVATIONS

- ☒ Full Height ☐ Crawl Space
Floor: ☒ Concrete ☐ Earth
☐ No Basement
☐ Mobil Home

Sump Pumps? ☐ Yes ☐ No

7 ft. 2 in.: from top of Foundation wall to floor.

WALLS

- ☐ Poured Concrete ☒ Stone
☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☒ No

Where does water line enter building? NE corner

BASEMENT WATER FIXTURES

- ☐ Wash Bowl(s) ☐ Shower/tub
☐ Toilet ☒ Mop Sink

WATER SUPPLY

- ☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

- ☒ Does it go out a basement wall?

If yes: _____ ft. _____ in.: from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☐ No

If yes, mark location on sketch plan.

☐ Ask owner what direction sewer pipe leaves the building. Show on sketch.

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ _____-in

SEWER DRAIN PIPE MATERIAL:

- ☒ Cast Iron -inside ☐ Orangeberg
☐ Vertified Clay ☐ Other _____
☒ PVC (Plastic) outside

SKETCH	LEGEND	Show measurement for locations of: <ul style="list-style-type: none"> - Sewer exiting building - Water line entering building Show locations: <ul style="list-style-type: none"> - Building Outline - Driveway - Street/Hwy/Tn Road - Street name
	<p><u>S</u> Sewer Line</p> <p><u>W</u> Water Line</p>	
<p>Comments: <u>7'6" SE corner inside wall</u></p>		



63



63

**PROPERTY INFORMATION
DATA SHEET**

Owner Name: Central Appliance
First Last

Date of On-Site Visit 7/17/17

Street Address: 65 East Main Street

Date of Follow-up Visit _____

Contact Person Pam

BASEMENT OBSERVATIONS

☒ Full Height ☐ Crawl Space

Floor: ☒ Concrete ☐ Earth

☐ No Basement

☐ Mobil Home

Sump Pumps? ☐ Yes ☒ No

6 ft. 7 in.: from top of Foundation wall to floor.

WALLS

☐ Poured Concrete ☒ Stone

☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☒ No

Where does water line enter building? NE corner

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub

☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☒ Does it go out a basement wall?

If yes: _____ ft. _____ in.: from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☒ No

If yes, mark location on sketch plan.

☒ Ask owner what direction sewer pipe leaves the building. Show on sketch.

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ _____-in

SEWER DRAIN PIPE MATERIAL:

☒ Cast Iron

☐ Orangeberg

☐ Vertified Clay

☐ Other _____

☐ PVC (Plastic)

In floor

SKETCH

LEGEND

—S— Sewer Line
—W— Water Line

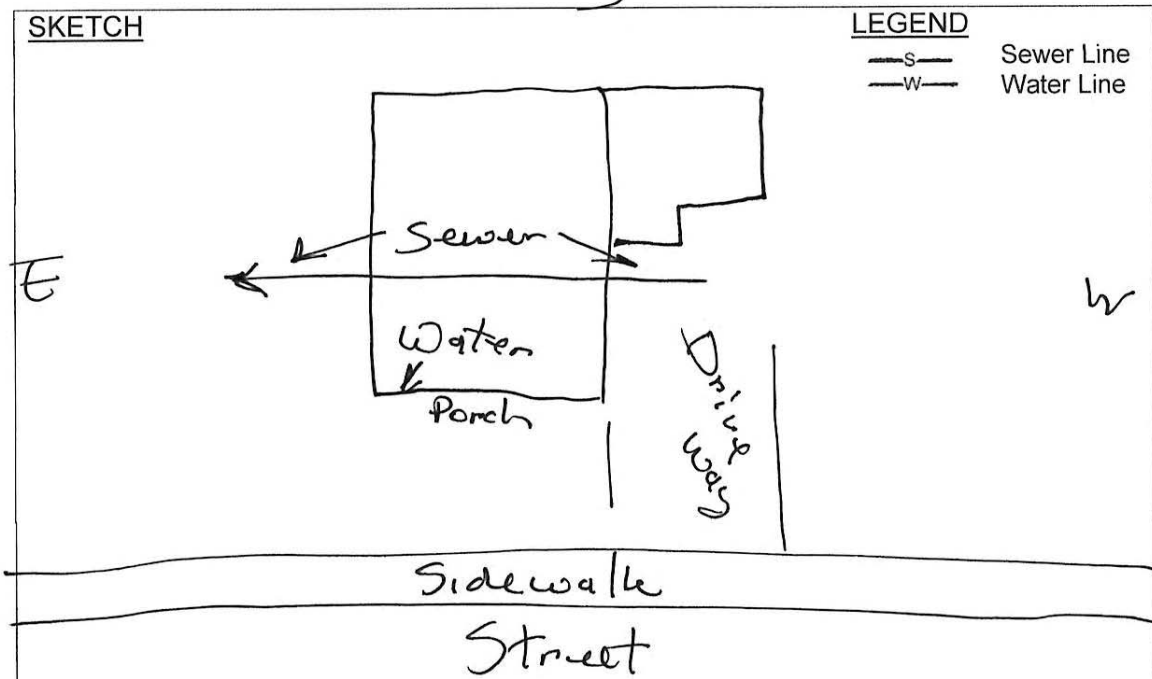
Sewer Line
Water Line

Show measurement for locations of:

- Sewer exiting building
- Water line entering building

Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name



Comments:

63-65 new PVC



65

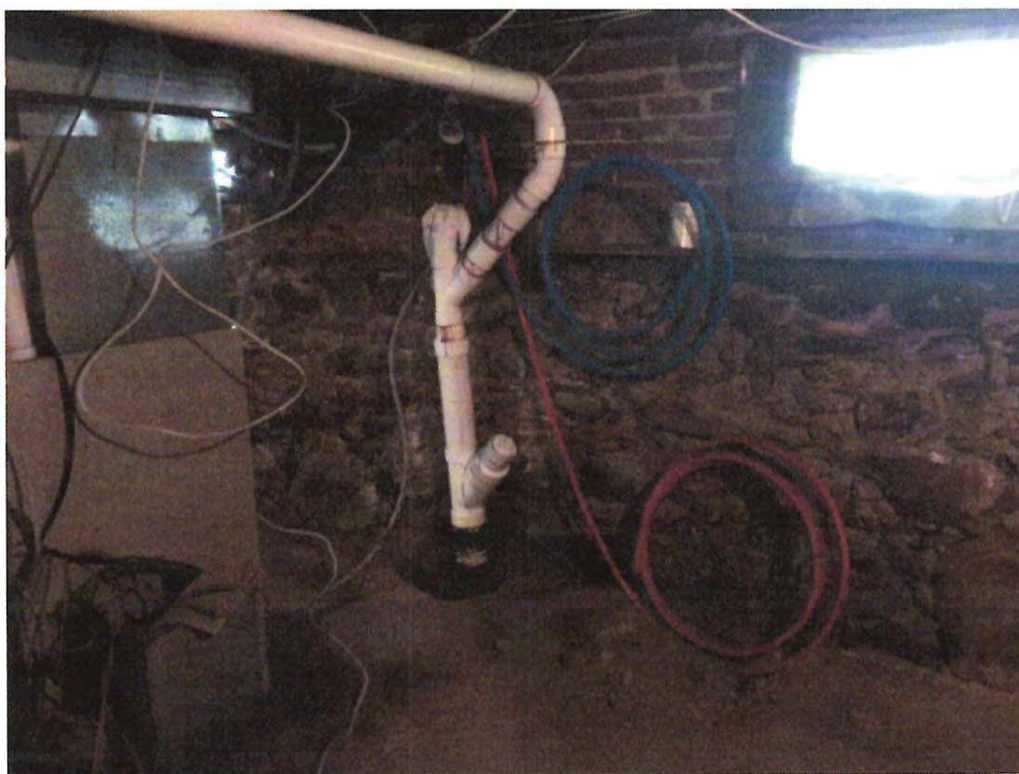
2



65



65



65

TOWN OF WILMINGTON
CWI ASSET MANAGEMENT GRANT 2016-CWI-AMP-10

**PROPERTY INFORMATION
DATA SHEET**

*Did not
inspect inside*

Owner Name: Pat Jacobs
First Last

Date of On-Site Visit _____

Date of Follow-up Visit _____

Street Address: 69 E. Main

Contact Person _____

BASEMENT OBSERVATIONS

- ☐ Full Height ☐ Crawl Space
Floor: ☐ Concrete ☐ Earth
☐ No Basement
☐ Mobil Home
Sump Pumps? ☐ Yes ☐ No
ft. in.: from top of Foundation wall to floor.

WALLS

- ☐ Poured Concrete ☐ Stone
☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☐ No

Where does water line enter building?

BASEMENT WATER FIXTURES

- ☐ Wash Bowl(s) ☐ Shower/tub
☐ Toilet ☐ Mop Sink

WATER SUPPLY

- ☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☐ Does it go out a basement wall?
If yes: _____ ft. _____ in.: from top of Pipe at wall to
top of Foundation wall.

Does it go out through the door? ☐ Yes ☐ No

If yes, mark location on sketch plan.

☐ Ask owner what direction sewer pipe leaves the
building. Show on sketch.

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☐ 4-in; ☐ ____-in

SEWER DRAIN PIPE MATERIAL:

- ☐ Cast Iron ☐ Orangeberg
☐ Vertified Clay ☐ Other _____
☐ PVC (Plastic)

** did not inspect !*

S

SKETCH

LEGEND

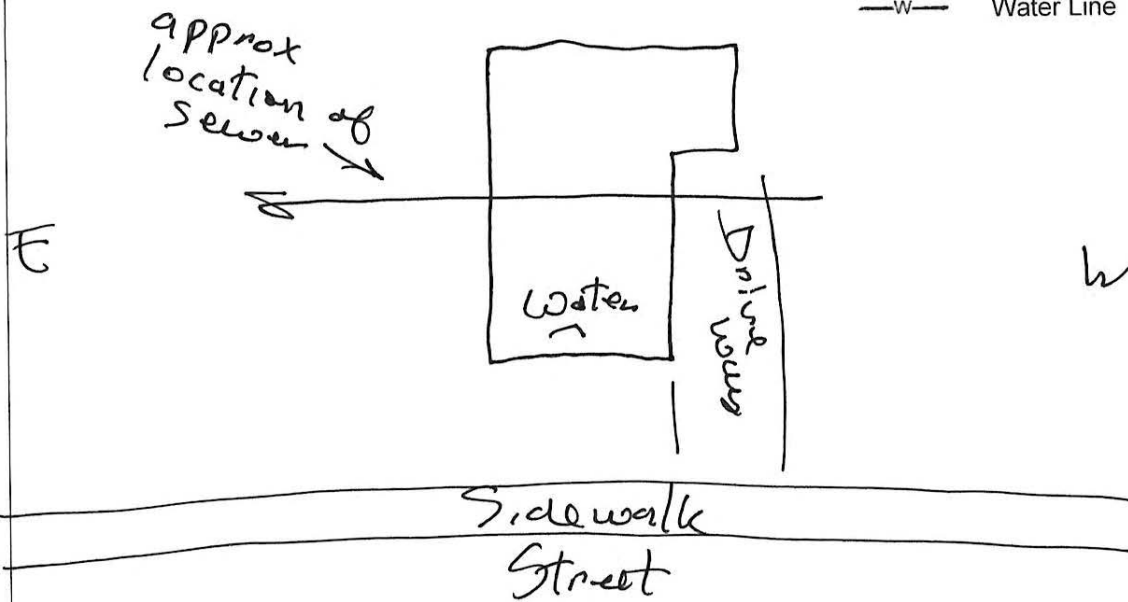
- S— Sewer Line
—W— Water Line

**Show measurement
for locations of:**

- Sewer exiting building
- Water line entering building

Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name



Comments:



69

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TOWN OF WILMINGTON
CWI ASSET MANAGEMENT GRANT 2016-CWI-AMP-10

**PROPERTY INFORMATION
DATA SHEET**

Owner Name: Pat Johnson
First Last

Date of On-Site Visit 7/10/17

Street Address: 71 East Main

Date of Follow-up Visit _____

Contact Person Larry

BASEMENT OBSERVATIONS

☒ Full Height ☐ Crawl Space

Floor: ☐ Concrete ☒ Earth

☐ No Basement

☐ Mobil Home

Sump Pumps? ☐ Yes ☐ No

7 ft. 3 in. from top of Foundation wall to floor.

WALLS

☐ Poured Concrete ☒ Stone

☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☒ No

Where does water line enter building?

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub

☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

*Working on
finishing
basement*

SEWER DRAIN PIPE

☒ Does it go out a basement wall?

If yes: 10 ft. 3 in. from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☒ No

If yes, mark location on sketch plan.

☐ Ask owner what direction sewer pipe leaves the building. Show on sketch.

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ ____-in

SEWER DRAIN PIPE MATERIAL:

☐ Cast Iron ☐ Orangeberg

☐ Vertified Clay

☒ PVC (Plastic)

*discharge side
approx.*

*inside
orangeberg or clay outside*

SKETCH

LEGEND

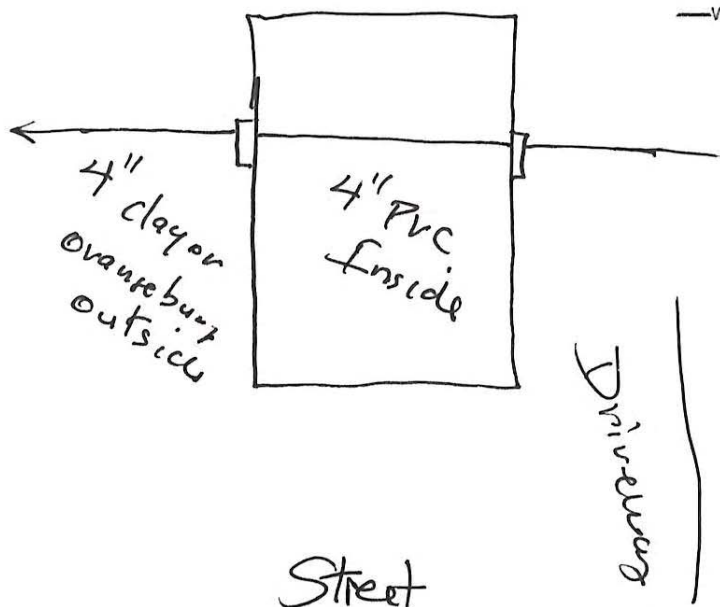
—S— Sewer Line
—W— Water Line

**Show measurement
for locations of:**

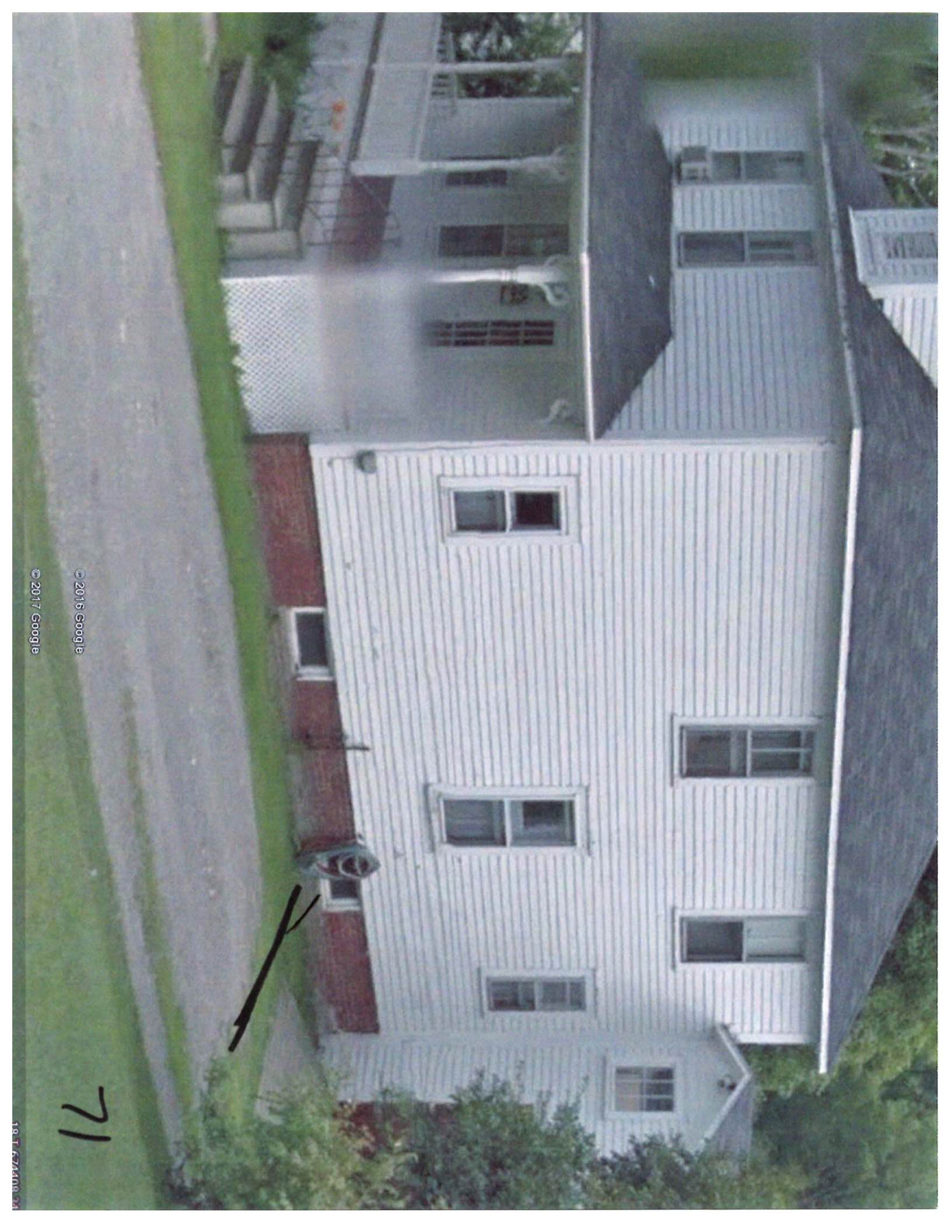
- Sewer exiting building
- Water line entering building

Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name



Comments:



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19-T-62408-01



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71

**PROPERTY INFORMATION
DATA SHEET**

Owner Name: Denise Anderson
First Last

Date of On-Site Visit 7/18/17

Date of Follow-up Visit _____

Street Address: 73 E Main

Contact Person _____

BASEMENT OBSERVATIONS

☒ Full Height ☐ Crawl Space

Floor: ☐ Concrete ☒ Earth

☐ No Basement

☐ Mobil Home

Sump Pumps? ☐ Yes ☐ No

7 ft. 7 in.: from top of Foundation wall to floor.

WALLS

☐ Poured Concrete ☒ Stone

☐ Concrete Blocks ☐ Other _____

Any Floor Drains? ☐ Yes ☐ No

Where does water line enter building?

BASEMENT WATER FIXTURES

☐ Wash Bowl(s) ☐ Shower/tub

☐ Toilet ☐ Mop Sink

WATER SUPPLY

☐ Drilled Well ☒ Municipal

SEWER DRAIN PIPE

☒ Does it go out a basement wall?

If yes: _____ ft. _____ in.: from top of Pipe at wall to top of Foundation wall.

Does it go out through the door? ☐ Yes ☒ No

If yes, mark location on sketch plan.

☐ Ask owner what direction sewer pipe leaves the building. Show on sketch.

SEWER DRAIN PIPE SIZE:

Size Diameter: ☐ 2-in; ☐ 3-in; ☒ 4-in; ☐ ____-in

SEWER DRAIN PIPE MATERIAL:

☐ Cast Iron

☐ Orangeberg

☐ Vertified Clay

☐ Other _____

☐ PVC (Plastic)

?

SKETCH

LEGEND

—S— Sewer Line
—W— Water Line

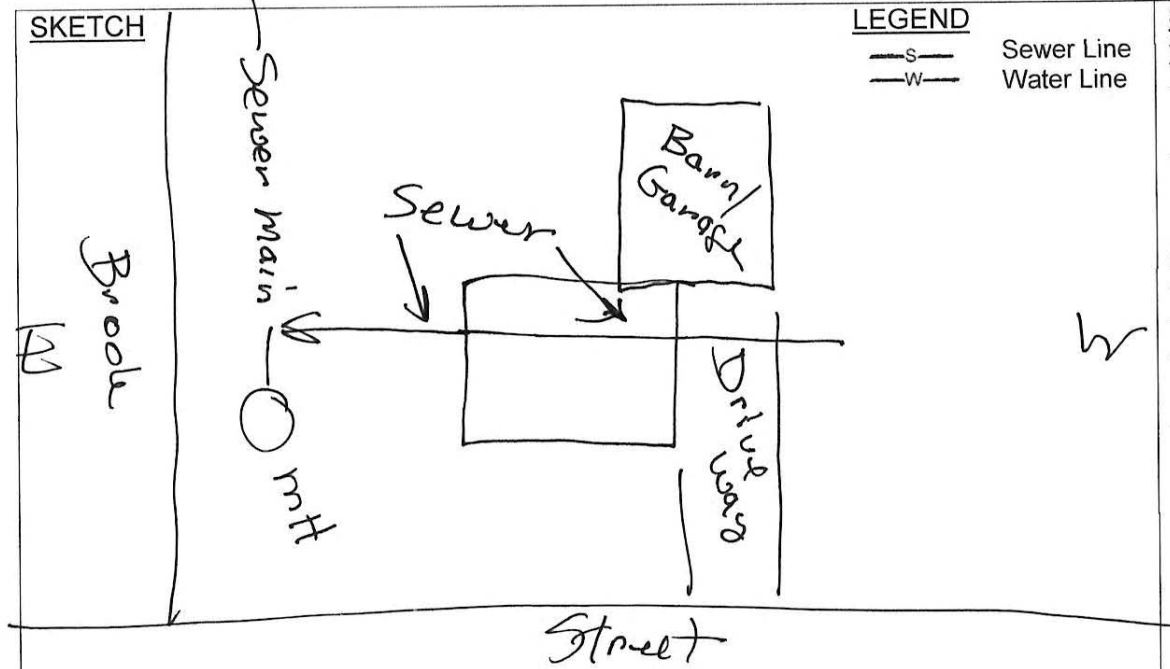
Sewer Line
Water Line

Show measurement for locations of:

- Sewer exiting building
- Water line entering building

Show locations:

- Building Outline
- Driveway
- Street/Hwy/Tn Road
- Street name

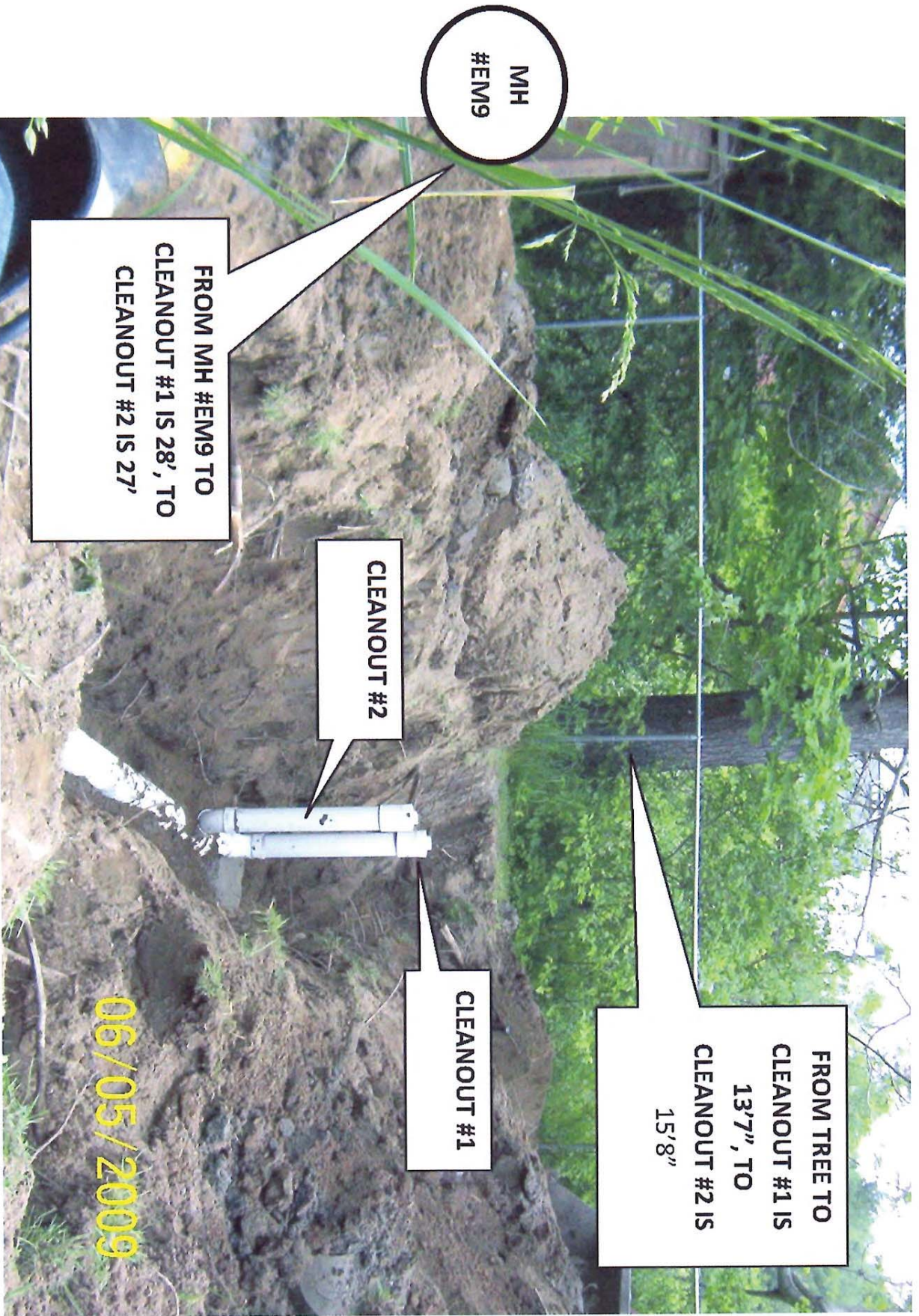


Comments:

sewer line is in floor, not sure how deep.



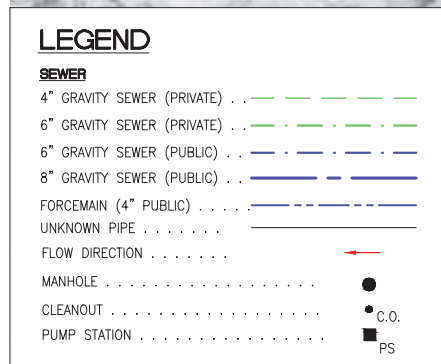
73

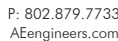




DELIVERABLE 2

SYSTEM ASSETS MAP



DATE 2

[illegible]

TOWN OF
WILMINGTON,
VERMONT

ASSET MANAGEMENT PROGRAM

EAST MAIN STREET 1

DESIGNED JK	PROJECT NO. 16067
DRAWN JEN	
CHECKED WAE	FIGURE 3
DATE OCT. 2017	



LEGEND

SEWER

4" GRAVITY SEWER (PRIVATE)

6" GRAVITY SEWER (PRIVATE)

6" GRAVITY SEWER (PUBLIC)

8" GRAVITY SEWER (PUBLIC)

FORCEMAIN (4" PUBLIC) _____

UNKNOWN PIPE _____

FLOW DIRECTION

MANHOLE

CLEANOUT 10

CLEANOUT C.O.
PUMP STATION

PUMP STATION PS

1

1

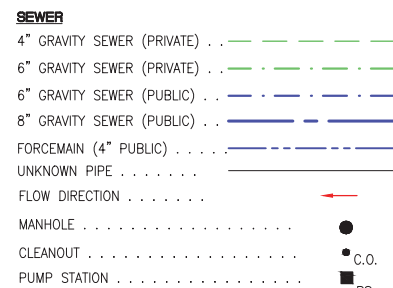
C.O.

PS

 **PLAN**
SCALE: 1"=40'

GRAPHIC SCALE

(IN FEET)

No

4



DELIVERABLE 3

LEVEL OF SERVICE

TOWN OF WILMINGTON
WASTEWATER COLLECTION SYSTEM
LEVEL OF SERVICE GOALS & PERFORMANCE MEASURES

Policy Statement: The Town of Wilmington Wastewater Collection System will review, assess, and modify, as necessary, the Level of Service Agreement, which includes the goal and performance measures, on an annual basis. The Wastewater Collection System will report to the Town Selectboard annually on the progress and achievements of the Level of Service Agreement over the past year.

Level of Service Goal	Goal/Target Level	Data Needed to Measure Goal	Period of Measurement	Current Level	Goal Achievement	Employee(s)	Notes/Comments
Public Health & Safety							
Within 1 hour of discovery, the operator shall notify the State and local health officer of a sanitary sewer overflow (SSO).	1 hours of event	<ul style="list-style-type: none">SSO Event Form	Per occurrence	Meeting	Meeting	Chief Operator	
System Maintenance							
Flush and clean critical sections of the sewer collection system each year	Annual Flushing	<ul style="list-style-type: none">Flushing invoices or reports	Yearly	Meeting	Meeting	Operator(s)	
Flush and clean all main sewer lines every 3 years.	Every 3 years	<ul style="list-style-type: none">Flushing invoices or reports	Every 3 years	Meeting	Meeting	Operator(s)	
Complete manhole inspections for the sewer collection system every five years	Every 5 Years	<ul style="list-style-type: none">Inspection Sheets	Per occurrence	In-Progress	Meeting	Operator	
Customer Service & Response Time							
Review Town Sewer Ordinance every five years	Every 5 Years	<ul style="list-style-type: none">Copy of Sewer Ordinance	Every 5 Years	Meeting	Meeting	Town Manager Chief Operator	
Provide sewer customers with 24 hours’ notice for any planned disruptions, 95% of the time. Planned outages are any sewer collection system disruptions known 48 hours in advance.	24 hours’ notice, 95% of occurrences	<ul style="list-style-type: none">Notice records	Per occurrence	Meeting	Meeting	Chief Operator	
Respond within 2 hours to customer reports of sewer collection system issues, 95% of the time.	2-hour response time, 95% of occurrences	<ul style="list-style-type: none">Monthly Report of Customer Service	Monthly	Meeting	Meeting	Town Manager Chief Operator	



DELIVERABLE 4

RISK ASSESSMENT

Town of Wilmington
 Asset Management Program
 Private Sewer Lines
 A+E Project #: 16067

Pipe ID Matrix	
Label	Description
EM1	Street Code: East Main Street Section 1
EM2	Street Code: East Main Street Section 2
WM	Street Code: West Main Street Section
PVT	Privately owned sewer
SER	Building sewer service
##	Number indicates either privately owned sewer in sequence or address of building service.

Material Key	
Type	Description
PVC	Polyvinyl Chloride
CI	Cast Iron
DI	Ductile Iron
AC	Asbestos Cement
VC	Vitrified Clay

Pipe Condition	
Rating	Description
4	Collapsed or Collapse Imminent
3	Significant defects and/or localized pipe failures
2	Mid-life. Collapse unlikely, minor sags/defects
1	New or like new sewer line

Remaining Useful Life Rating	
Rating	Description
3	Exceeded Useful Life
2	Midway thru Life
1	Recently put in Service

Material Rating	
Rating	Description
4	Asbestos Cement Pipe
3	Metal Pipe (Suseptible to Corrosion)
2	Vitrified Clay Pipe
1	PVC Pipe

Criticality of Line	
Rating	Description
3	Failure results in direct damage to property or discharge of sewer to waters of the State
2	Failure likely results in main line blockages and possible discharge of sewer to ground surface
1	Failure results in localized damage to served property

Risk Rating Calculation

Risk Rating = Pipe Condition * Remaining Useful Life Rating * Material Rating * Criticality of Line Rating

Pipe ID	Street Name	Location (Street Address or VT State Plane Coordinates)			Street Code	Pipe Diameter (in.)	Pipe Material	Depth of Cover (ft)	Segment Length (ft)	Pipe Condition (1-5)	Current Year	Installation Date ⁽¹⁾	Estimated Age	Expected Useful Life	Remaining Useful Life ⁽²⁾	Remaining Useful Life Rating (1-3)	Material Rating (1-4)	Criticality of Line Rating (1-3)	Risk Rating ⁽³⁾ (2.4-49)	Risk Rating (0- 10)	Notes
		Address Number	Downstream Coordinate	Upstream Coordinate																	
EM1 - PVT - 1	East Main	--	(N) 133474.5000 (E) 1541602.2960	(N) 133600.1070 (E) 1541633.4880	EM1	6	AC	6	130	2	2018	1960	58	50	(8)	3	4	2	48	7	Connects to Town owned manhole
EM1 - PVT - 2	East Main	--	(N) 133600.1070 (E) 1541633.4880	(N) 133679.8890 (E) 1541611.1350	EM1	4	DI	5 to 16	80	2	2018	1960	58	50	(8)	3	3	2	36	5	Steep slope to Cleanout connection with EM1-PVT-1
EM1 - PVT - 3	East Main	--	(N) 133679.8890 (E) 1541611.1350	(N) 133765.5870 (E) 1541620.8470	EM1	4	DI	5	90	2	2018	1960	58	50	(8)	3	3	2	36	5	Under driveway of #37
EM1 - PVT - 4	East Main	--	(N) 133765.5870 (E) 1541620.8470	(N) 133914.6910 (E) 1541708.1880	EM1	4	DI	6	170	2	2018	1960	58	50	(8)	3	3	2	36	5	Under driveway of #37
EM1 - PVT - 5	East Main	--	(N) 133914.6910 (E) 1541708.1880	(N) 133987.6890 (E) 1541552.4940	EM1	4	DI	1 to 7	175	3	2018	1960	58	50	(8)	3	3	2	54	7	Depth increases from 1ft to 7ft
EM1 - SER - 28	East Main	28	--	--	EM1	4	PVC	2 to 1	70	2	2018	1960	58	50	(8)	3	1	1	6	1	House Service
EM1 - SER - 34	East Main	34	--	--	EM1	4	PVC	3.5	30	2	2018	1960	58	50	(8)	3	1	1	6	1	House Service
EM1 - SER - 36	East Main	36	--	--	EM1	4	CI	**	60	2	2018	1960	58	50	(8)	3	3	1	18	2	House Service
EM1 - SER - 37	East Main	37	--	--	EM1	4	CI	3	25	2	2018	1960	58	50	(8)	3	3	1	18	2	House Service
EM1 - SER - 38	East Main	38	--	--	EM1	4	CI	5 to 7	40	2	2018	1960	58	50	(8)	3	3	1	18	2	House Service
EM1 - SER - 40	East Main	40	--	--	EM1	4	CI	4 to 7	35	2	2018	1960	58	50	(8)	3	3	1	18	2	House Service
EM2 - PVT - 1	East Main	63, 65, 69, 71	--	--	EM2	4	CI / PVC / VC	3 to 5	270	4	2018	1960	58	50	(8)	3	3	2	72	10	Runs under structures below the basement floor slabs.
EM2 - PVT - 2	East Main	73	--	--	EM2	4	PVC	6	30	1	2018	2010	8	50	42	1	1	2	2	0	Replaced recently by property owner.
WM - PVT - 1	West Main Street	--	(N) 134481.7410 (E) 1540500.9035	(N) 134702.4200 (E) 1540645.8920	WM	6	VC	4 to 6	260	2	2018	1960	58	50	(8)	3	2	3	36	5	Located in gravel driveway between Memorial Hall and #16
WM - PVT - 2	West Main Street	--	(N) 134702.4200 (E) 1540645.8920	(N) 134710.2250 (E) 1540659.8710	WM	4	VC	4	20	2	2018	1960	58	50	(8)	3	2	3	36	5	Transitions to 6" pipe WM-PVT-1
WM - PVT - 3	West Main Street	--	(N) 134710.2250 (E) 1540659.8710	(N) 134654.2050 (E) 1540759.6180	WM	4	VC	3.6	115	2	2018	1960	58	50	(8)	3	2	3	36	5	Bends 90 degrees from WM-SER-9
WM - SER - 9	West Main Street	9	--	--	WM	4	PVC	3.5	15	2	2018	1960	58	50	(8)	3	1	1	6	1	House Service
WM - SER - 11	West Main Street	11	--	--	WM	**	**	**	50	2	2018	1960	58	50	(8)	3	3	1	18	2	House Service
WM - SER - 15	West Main Street	15	--	--	WM	4	PVC TO CI	4	40	2	2018	1960	58	50	(8)	3	3	1	18	2	House Service
WM - SER - 16	West Main Street	16	--	--	WM	4	CI	3.5	30	2	2018	1960	58	50	(8)	3	3	1	18	2	House Service

** Unknown/Could not be inspected
(1) Date assumed to be 1960 based on approximate installation date of Town sewer system.
(2) Remaining useful life is set as 50 years.
(3) Risk Rating = Pipe Condition * Remaining Useful Life Rating * Material Rating * Criticality of Line Rating



DELIVERABLES 5 & 6

CAPITAL IMPROVEMENT PLAN AND FUNDING STRATEGY NARRATIVE

MEMORANDUM

DATE: June 11, 2018

TO: John Lazelle, Wilmington Wastewater District
Robert Pelosi, Vermont DEC

FROM: Joseph S. Krupa, PE

RE: Town of Wilmington, CWI Asset Management Grant 2016-CWI-AMP-10
Deliverables 5 & 6 - Capital Improvement Plan and Funding Strategy Narrative
A+E Project No. 16067

BACKGROUND

In January of 2017, The Town of Wilmington (through the Wilmington Wastewater District) retained Aldrich + Elliott, PC (A+E) to develop an Asset Management Plan in (3) locations. The goal of the project is to further investigate three (3) sections of the existing sewer collection system where several residential and commercial buildings are connected to shared private sewerlines. The locations of these pipeline segments are named West Main Street, East Main Street 1, East Main Street 2, and can be found on the attached mapping, Figure 1.

The objectives of this plan are to:

- Determine how many buildings are connected to each private sewerline
- Verify where the services connect
- Verify where the private sewers connect to the mainline sewer
- Document the pipe sizes and materials
- Assess the condition of the pipe
- Evaluate alternatives to eliminate these private lines and potential funding sources

This memo evaluates proposed concepts to eliminate these private sewer lines, discusses the District's responsibilities under existing ordinances, and identified potential funding sources.

TOWN ORDINANCES

Under the existing Wilmington Wastewater District Sewer Ordinance dated October 2, 2013, "a separate and independent sewer connection shall be provided for each and every building..." (Section 505). The District's ordinance allows for combined sewer connections or private sewers in limited circumstances if "independent connections are not feasible or if shared connections are in the best interest of the Town."



In order to enforce this ordinance, it may be possible for the District to force separation of the private sewer into independent connections under Section 1001, however, utilization of this section for this purpose may be impractical and financially unreasonable. This is true for the private sewers servicing the West Main and East Main 1 systems which would require expansion of the District sewer system prior to decommissioning the existing private sewer. As a result, it is in the “best interest of the Town” to allow these private sewers until a time that the public system can be extended to these areas.

It may be appropriate for the District to exercise Section 1001 for East Main #2 where separate sewer services are possible. In the case of East Main 2, the private sewer running under the homes will have to remain in service until all homes have separate sewer services installed. Section 1001 may help ensure timeliness of this work by each owner and prevent home owners from maintaining a private sewer they are no longer connected to due to the sewer’s location under their home.

CAPITAL IMPROVEMENT PLAN, PROPOSED WORK, AND COSTS

As indicated above, this work specifically evaluates (3) locations that consist of multiple sewer customers on private sewerlines. As such, a diligent improvement plan is required that clearly identifies the public and private division of responsibilities and ensures that public funds are spent only on improvements that work to the public’s benefit and fulfills District obligations to its users.

The attached mapping illustrates conceptual proposed improvements to eliminate the combined private sewer lines and create separate sewer connections for each building. Each location is described in detail below.

WEST MAIN STREET

West Main Street is currently serviced by (2) two public sewerlines as shown on Figure WM. One sewerline runs behind the buildings on the westside of West Main Street along the river. The other begins to the northwest of #15 West Main Street and flows northwest.

Improvements to West Main Street require extending the existing public sewer line southeast approximately 250 linear feet in order to connect (3) three of the (4) four structures currently serviced by the West Main Private sewer. Services for numbers 9, 11, and 15 would be connected to the new sewer as part of this work, however, #16 would remain on the existing private sewerline due to the building’s sewer service location.

Consideration should be given to #16 to allow the owner to reconfigure the structure’s interior plumbing and connect to the new sewer in the future. However, this work would be funded and executed by the building owner and not the District.

Tables 1 and 2 below provides a summary of estimated budget costs for this work. The estimated construction cost for the overall improvements is approximately \$73,000, and work at House #16 is estimated at \$10,000 to \$15,000.

TABLE 1 – West Main Street Public Improvements Construction Cost Estimate

Unit Description		Total Quantity	Unit	Engineer's Estimate	
				Unit Price	Total Cost
1	8" PVC Gravity Sewer	250	L.F.	\$ 75.00	\$ 18,750.00
2	4" Diameter Sewer Manholes	8	V.F.	\$ 550.00	\$ 4,400.00
3	4" Sewer Services	20	L.F.	\$ 70.00	\$ 1,400.00
4	6" Sewer Services	10	L.F.	\$ 80.00	\$ 800.00
5	8" x 4" Wyes	2	EA.	\$ 200.00	\$ 400.00
6	8" x 6" Wyes	1	EA.	\$ 200.00	\$ 200.00
7	Permanent Bit. Pavement Repair – Town Roads	150	S.Y.	\$ 75.00	\$ 11,250.00
8	Concrete Sidewalk	250	L.F.	\$ 60.00	\$ 15,000.00
9	Concrete Curb	250	L.F.	\$ 45.00	\$ 11,250.00
10	Contingency (15%)	1	L.S.	\$ 9,517.50	\$ 9,517.50
			TOTAL		\$ 72,967.50
			USE		\$ 73,000.00

Notes:

1. ENR = 11045 (June 2018)

TABLE 2 – #16 West Main Street Private Improvements Construction Cost Estimate

Unit Description		Total Quantity	Unit	Engineer's Estimate	
				Unit Price	Total Cost
1	Interior Replumb	1	EA.	\$ 3,500.00	\$ 3,500.00
2	6" Sewer Services	40	L.F.	\$ 80.00	\$ 3,200.00
3	8" x 6" Wyes	1	EA.	\$ 200.00	\$ 200.00
4	Permanent Bit. Pavement Repair – Town Roads	45	S.Y.	\$ 75.00	\$ 3,375.00
5	Concrete Sidewalk	10	L.F.	\$ 60.00	\$ 600.00
6	Concrete Curb	10	L.F.	\$ 45.00	\$ 450.00
7	Contingency (15%)	1	L.S.	\$ 1,698.75	\$ 1,698.75
			TOTAL		\$ 13,023.75
			USE		\$ 14,000.00

Notes:

1. ENR = 11045 (June 2018)

EAST MAIN STREET 1

Similar to West Main Street, East Main Street 1 (as shown on Figure EM1) requires extending the existing public sewer line west approximately 520 linear feet in order to connect (5) five of the (6) six structures currently serviced by the East Main 1 Private sewer. Services for numbers 28, 34, 36, 38 and 40 would be connected to the new sewer as part of this work.

#37 would remain on the existing private sewerline for the foreseeable future due to the building service location and elevation. Table 4 illustrates costs for a future replumb of the structure and connection to the new main that would be paid for by the property owner.

Tables 3 below provides a summary of estimated budget costs for this work at an estimated construction cost of \$159,000.

TABLE 3 – East Main Street 1 Public Improvements Construction Cost Estimate

Unit Description		Total Quantity	Unit	Engineer's Estimate	
				Unit Price	Total Cost
1	8" PVC Gravity Sewer ²	520	L.F.	\$ 90.00	\$ 46,800.00
2	4" Diameter Sewer Manholes	16	V.F.	\$ 550.00	\$ 8,800.00
3	4" Sewer Services	50	L.F.	\$ 70.00	\$ 3,500.00
6	8" x 4" Wyes	6	EA.	\$ 200.00	\$ 1,200.00
7	Permanent Bit. Pavement Repair – Town Roads	300	S.Y.	\$ 75.00	\$ 22,500.00
8	Concrete Sidewalk	520	L.F.	\$ 60.00	\$ 31,200.00
9	Concrete Curb	520	L.F.	\$ 45.00	\$ 23,400.00
10	Contingency (15%)	1	L.S.	\$ 20,610.00	\$ 20,610.00
			TOTAL		\$ 158,010.00
			USE		\$ 159,000.00

Notes:

1. ENR = 11045 (June 2018)
2. There are potential conflicts with an existing watermain on East Main 1. The 8" Gravity Sewer unit price has been increased to capture potential costs associated with resolving these conflicts.

TABLE 4 – East Main Street 1 Private Improvements Construction Cost Estimate

Unit Description		Total Quantity	Unit	Engineer's Estimate	
				Unit Price	Total Cost
1	Interior Replumb	1	EA.	\$ 3,500.00	\$ 3,500.00
2	4" Sewer Services	90	L.F.	\$ 70.00	\$ 6,300.00
3	8" x 4" Wyes	1	EA.	\$ 200.00	\$ 200.00
4	Permanent Bit. Pavement Repair – Town Roads	45	S.Y.	\$ 75.00	\$ 3,375.00
5	Concrete Sidewalk	10	L.F.	\$ 60.00	\$ 600.00
6	Concrete Curb	10	L.F.	\$ 45.00	\$ 450.00
7	Contingency (15%)	1	L.S.	\$ 2,163.75	\$ 2,163.75
			TOTAL		\$ 16,588.75
			USE		\$ 17,000.00

Notes:

1. ENR = 11045 (June 2018)

EAST MAIN STREET 2

The East Main Street 2 location is currently serviced by a public sewerline running across the field south of the (5) homes in the study area as shown on Figure EM2. The homes are connected to the public system via a private sewerline that runs under the foundations of each home before connecting into a manhole.

Improvements would require each homeowner to replumb their buildings and extend new services out the back of the home to the existing service. #73 East Main Street would remain on the last length of the existing private sewerline. The homeowner recently replaced this sewerline, and it is believed to be in good condition.

Table 5 below provides a summary of estimated budgeting costs for this work at an estimated construction cost of \$44,000.

TABLE 5 – East Main Street 2 Private Improvements Construction Cost Estimate

Unit Description		Total Quantity	Unit	Engineer's Estimate	
				Unit Price	Total Cost
1	Interior Replumb	4	EA.	\$ 3,000.00	\$ 12,000.00
2	4" Sewer Services	310	L.F.	\$ 80.00	\$ 24,800.00
3	8" x 4" Wyes	4	EA.	\$ 200.00	\$ 800.00
4	Contingency (15%)	1	L.S.	\$ 5,640.00	\$ 5,640.00
			TOTAL		\$ 43,240.00
			USE		\$ 44,000.00

Notes:

1. ENR = 11045 (June 2018)

The cost of these improvements would be bore by each homeowner individually for an estimated \$10,000 to \$12,000 each (\$44,000/4).

The Wilmington Wastewater District views each of these locations as a short-term (5-10 year) priority of improvement. This is especially true for West Main and East Main 1 due to their proximity to the downtown area, and planned sidewalk improvements on East Main Street.

SEWER RATES

The Wilmington Wastewater District generates the majority of its wastewater collection system revenue through its sewer rates. The sewer rates are billed semi-annually using an ECU classification system, so 1.00 ECU's is equal to a single-family house. For FY18, the sewer rate is \$445.50/ECU based on a total of 728 ECUs.

Realized impact to the sewer rates will depend on the District's approach to addressing each of these areas. As described above, several of these assets are private and will remain private. Cost for correcting these assets could be borne by the private owners and not impact Town sewer rates.

For those areas that will fall under the District's jurisdiction, impacts to sewer rates will depend on the current year's expenses and sewer rates, and District indebtedness. If timed correctly, the District could close existing loans prior to opening a new loan for this work. As a result, sewer rates would likely remain unchanged.

FUNDING STRATEGY

Several options exist for the Town and private owners to fund improvements to these assets. Although the District does not have direct responsibility over these private lines, the Sewer Commissioners has made addressing these lines a priority. It is anticipated that a number of these improvements will be privately funded, however, the District is open to discussing options for joint funding.

For example, improvements to the East Main #2 system call for new sewer services for each residence. It is anticipated that each new service would be funded by the property owner, and not by the Wilmington Wastewater District.

Proposed improvements for East Main #1 and West Main call for the installation of new public sewer to collect wastewater from most of the affected properties. The following funding options are potential funding sources.

State of Vermont Department of Environmental Conservation

The State of Vermont offers low interest loans for planning, design, and construction of municipal infrastructure improvements. The State of Vermont offers the Clean Water State Revolving Fund (CWSRF) loan program for this type of project. The CWSRF program provides loans with an interest rate of 2% for a term of 20 to 30 years, depending on the projected median household income (MHI) and the projected user cost criteria. The funding schedule depends on the individual project's priority ranking in comparison with other projects, and this project is currently eligible for funding.

It is worth noting that the Department of Environmental Conservation is proposing to expand the statute to allow private entities to apply for funding as well. If passed, this source could be available to private owners in Wilmington seeking to improve their assets.

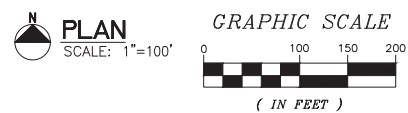
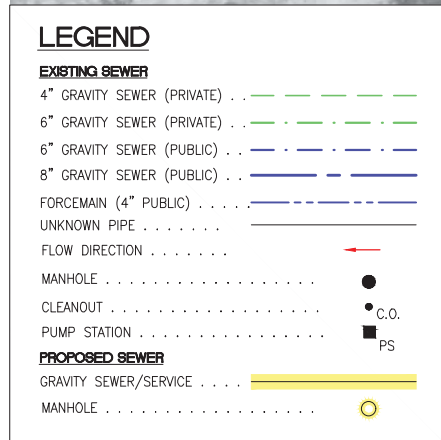
USDA Rural Development (RD)

The USDA Rural Development (RD) program includes both grants and loan, depending on the project and community's ability to pay, which is based on the District's sewer rates and median household income (MHI). Given the demographics of the service area and relatively low MHI, the District may be eligible for grants under the RD program. An additional condition of the USDA RD program is that pipe material be bid through a competitive process, which essentially limits the municipality to PVC over ductile iron piping per the material market costs. Current grant/loan terms through the USDA RD program are estimated to be 2.5% (Intermediate Rate) for 30 to 40 years. Depending on the median household income the District could qualify for a lower interest rate and grant up to 45%. USDA cannot issue a funding offer until a positive bond vote has occurred.

It is important to note that the USDA funding source is only available to the municipality for use on public infrastructure.

This memo represents the completion of milestones 5 & 6 for the Town of Wilmington's CWI Asset Management Grant 2016-CWI-AMP-10. Once reviewed and accepted, the Town will complete and submit the final report to complete all grant obligations.

Should you have any questions regarding the findings described above, please do not hesitate to contact us at (802) 879-7733.

[illegible]TOWN OF
WILMINGTON,
VERMONT

ASSET
MANAGEMENT
PROGRAM

**PRIVATE
WASTEWATER SYSTEM
MAP**

DESIGNED JK	PROJECT NO. 16067
DRAWN JEN	
CHECKED WAE	FIGURE 1
DATE JUNE, 2018	

[illegible]

TOWN OF
WILMINGTON,
VERMONT

ASSET MANAGEMENT PROGRAM

EAST MAIN STREET 1

DESIGNED JK	PROJECT NO. 16067
DRAWN JEN	
CHECKED WAE	FIGURE EM1
DATE JUNE, 2018	

[illegible]TOWN OF
WILMINGTON,
VERMONT

ASSET MANAGEMENT PROGRAM

EAST MAIN STREET 2

DESIGNED JK	PROJECT NO. 16067
DRAWN JEN	FIGURE
CHECKED WAE	EM2
DATE JUNE, 2018	