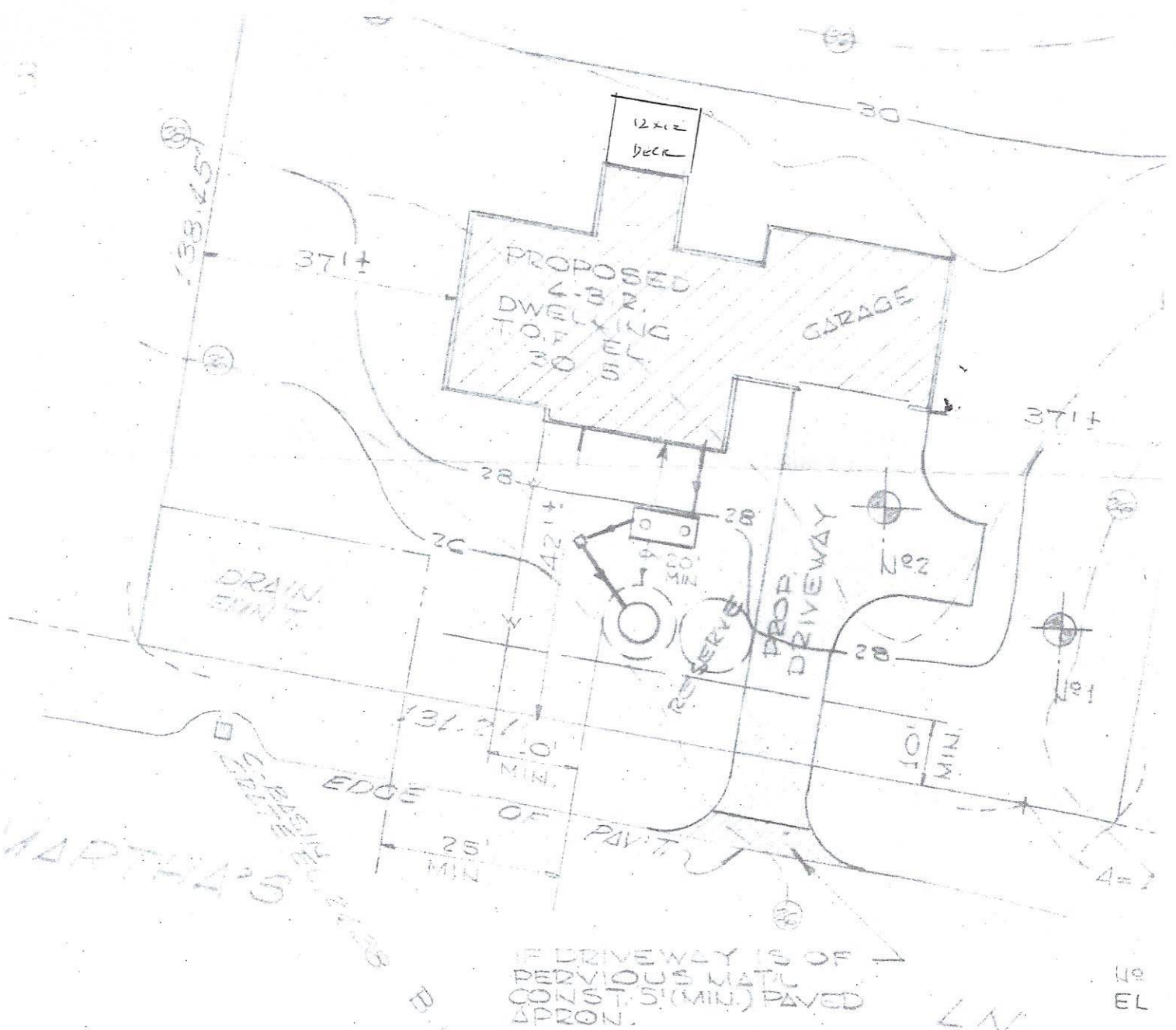


**Wastewater Support Committee
Information Update
February 15, 2018**

***What we have learned since the January
16, 2018 Community Center Meeting***

Property Owner Sewer Connection Responsibility

- The property owner will be responsible for hiring a Massachusetts Registered Professional Engineer (PE) to develop a particular sewer interconnection plan for each interconnection.
- Local sewer connection engineers include BSS Engineering, Clark Engineering, Down Cape Engineering, Moran Engineering, Oceanside Engineering and Stenbeck & Taylor . This list is not meant to be comprehensive only to illustrate that the homeowner has several firms to choose from. These are firms which historically have designed Title V septic systems .
- Once the sewer interconnection plan is complete the homeowner can solicit construction / installation bids from a list of Licensed Utility Installers. These firms must be licensed, bonded and hold a Certificate of Insurance with the required coverage.
- It will be the homeowners responsibility to shop for the best price and select the successful bidder based upon their own criteria. Chatham has a list of 15 qualified Drain Layers. Harwich will need to develop its requirements for Licensed Utility Installers and invite firms to become qualified to do this work in the Town of Harwich .



M.E. McNamee
12/2/86

Albert H. Ramey
12/1/86

TE PLAN ~ PROPOSED SEWAGE DISPOSAL SYSTEM

OR: - OAKERS POND REALTY TR.

AND IN: - HARVICH, MASS.

YDER & WILCOX, P.E. & R.L.S. BOX 439 SO. ORLEANS CENTER
O. ORLEANS, MASS. TEL. 617/255-8312

SCALE: - 1" = 20'

DRAWN BY: - WB

DATE: - 26 NOV. 1986



Town of Chatham

2018 Licensed Contractors

Borthwick & Summers PO Box 558 N. Chatham, MA 02650 508-430-1720	Bortolotti Construction PO Box 704 45 Industrial Road Marstons Mills, MA 02648 508-771-9399	Bryan Barrows Excavating 2 Vineyard Ave Harwich, MA 02645 508-430-2663
Dan Speakman Construction 15 Speak Way N Harwich, MA 02645 508-432-5565	FL Quinn Construction PO Box 515 Orleans, MA 02653 508-255-4544	GFM Enterprises 2 George Holbrook Way Harwich, MA 02645 508-349-7300
JW Dubis, Inc 79 Stony Hill Road Chatham, MA 02633 508-945-0283	John Martin, Inc Excavating Contractor 32 Rayber Road Orleans, MA 02653 508-240-0668	Northeast Construction PO Box 2350 Brewster, MA 02631 508-896-7713
Peter McIntire & Sons 50 Martha Kendrick Road Chatham, MA 02633 508-945-2846	Robert B Our PO Box 1539 Harwich, MA 02645 508-432-0530	TW Nickerson 160 Mill Hill Road S. Chatham, MA 02659 508-432-1655

Preliminary Street Listing for Phase 2 Sewer Installation

- Phase 2 Street Listing as of 1/30/18 includes the following:

○ Residential	553 lots
○ Commercial	24 lots
○ Other	11 lots
○ Undeveloped	<u>40 lots</u>
▪ Total	628 lots

Subject: FW: Street Listing

Date: Wednesday, January 31, 2018 at 7:41:20 AM Eastern Standard Time

From: Young, David F.

To: phughes41@comcast.net, larryballantine@yahoo.com

CC: Christopher Clark, Dan Pelletier, Guidice, Michael

Preliminary list as of today.....still reviewing pipeline routes
Dave

From: Guidice, Michael

Sent: Tuesday, January 30, 2018 6:47 PM

To: Young, David F. <YoungDF@cdmsmith.com>

Subject: Street Listing

Dave,

Attached is the preliminary Phase 2 street listing. As you know, some we are considering moving into Phase 3 or moving into Phase 2 from Phase 8. Private streets per the assessor's street listing are noted as such.

Also attached is the parcel use info from GIS that Jared pulled together.

Phase 2:	Residential =	553 lots
	Commercial =	24 lots
	Other =	11 lots
	Undeveloped =	40 lots
	Total =	628 lots

Let me know if you have any questions.

Thanks,

Mike

Michael P. Guidice, P.E., BCEE

Associate

CDM Smith

260 West Exchange Street, Suite 300

Providence, RI 02903

Direct tel.: 401-457-0310

guidicemp@cdmsmith.com

HARWICH SEWER COLLECTION SYSTEM - PHASE 2
PRELIMINARY STREET LISTING

STREET NAME	OWNERSHIP	NOTES
Alexander's Chase	Private	
Auston Road	Private	
Bay Road		
Brewster Chatham Road (Route 137)(Partial)	County	
Captain Philips Road		Move to Phase 3?
Cemetery Road		
Chickadee Lane	Private	Added
Chris Jobeth Circle	Private	
Church Street (Partial)	County	
Compass Drive		
Continental Drive		
Deer Meadow Road		
Ellis Drive		
Fredericksburg Avenue		
Halls Path (Partial)		
Harden Lane		
Herndon Road		
Huckleberry Path		
Johanna's Path	Private	
Landron Way	Private	
Liberty Trail		
Lily Lane	Private	
Locust Grove Road		
Marsh View Road		
Nickerson Road		
Nor'east Drive		
Old Carriage Drive		
Old Heritage Way		
Old Salty Lane	Private	
Orleans Harwich Road (Route 39) (Partial)	County	
Partridge Lane (Partial)		Move from Phase 8?
Queen Anne Road (Partial)	Town/County	By Chatham
Reliance Way	Private	Move from Phase 8?
Round Cove Road (Partial)		Move from Phase 8?
Sadies Way	Private	
Scotch Pine Farm	Private	
Sherwood Road		
Somerset Road		
Sou'west Drive		
Sparrow Hawk Road	Private	Leave stub?
Spence's Trace	Private	
Spruce Grove	Private	
Sugar Hill Drive		
Tern Road		
Vicksburg Avenue		
Washburn Way	Private	Move to Phase 3?
Whidah Drive		
White Pine Circle		
Williamsburg Avenue		

Note: Town accepted streets unless noted otherwise.

Phase 2 Draft Schedule 2/5/2018

- Construction of Sewer System Begins May 2019
- Construction Completed May 2021
- Properties start sewer connections June 2021
- Due to the number of properties to be connected may have to extend the connection period from 12 to 18 months
- **First flow of sewage to the Chatham Treatment Facility June 2021**

**East Harwich Sewer System
Phase 2
Proposed Draft Schedule
2/5/2018**

Task	JUL 17	AUG 17	SEP 17	OCT 17	NOV 17	DEC 17	JAN 18	FEB 18	MAR 18	APR 18	MAY 18	JUN 18	JUL 18	AUG 18	SEP 18	OCT 18	NOV 18	DEC 18
Project Schedule																		
Contract Award																		
Surveying (Topographic)																		
Design Alternatives Analysis/Preliminary Design																		
Update Cost Estimate																		
Town Funding Request ¹																		
90% Design (Design Plans, Specifications, Borings)																		
Project Permitting Completed																		
Final Design																		
Bidding																		
Construction ²																		
Properties Connect to Sewer																		

Task	JUL 17	AUG 17	SEP 17	OCT 17	NOV 17	DEC 17	JAN 18	FEB 18	MAR 18	APR 18	MAY 18	JUN 18	JUL 18	AUG 18	SEP 18	OCT 18	NOV 18	DEC 18
SRF Schedule																		
Submitt Project Evaluation Form (PEF) to MassDEP																		
Draft Intended Use Plan (IUP) Issued by MassDEP																		
Final Intended Use Plan (IUP) Issued by MassDEP																		
Funding Authorization Required by MassDEP																		
Approve Flow Management - Land Use Control Regulations																		
SRF Application and 90% Design to MassDEP																		
Permission to Advertise by MassDEP																		
Authorization to Award by MassDEP																		

Notes

- May 2018 Town Meeting Articles (FY 19):
Article 1: Phase 2 Construction,
Article 2: DHY Special Legislation,
Article 3: Hinckleys Pond
2. Potential summer shutdown between Memorial Day
and Labor Day.

IUP = Intended Use Plan
SRF = State Revolving Fund Loan Program

**East Harwich Sewer System
Phase 2
Proposed Draft Schedule
2/5/2018**

Task	JAN 19	FEB 19	MAR 19	APR 19	MAY 19	JUN 19	JUL 19	AUG 19	SEP 19	OCT 19	NOV 19	DEC 19	JAN 20	FEB 20	MAR 20	APR 20	MAY 20	JUN 20	JUL 20	AUG 20	SEP 20	OCT 20	NOV 20	DEC 20
Project Schedule																								
Contract Award																								
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**East Harwich Sewer System
Phase 2
Proposed Draft Schedule
2/5/2018**

Task	JAN '21	FEB '21	MAR '21	APR '21	MAY '21	JUN '21	JUL '21	AUG '21	SEP '21	OCT '21	NOV '21	DEC '21	JAN '22	FEB '22	MAR '22	APR '22	MAY '22	JUN '22	JUL '22	AUG '22	SEP '22	OCT '22	NOV '22	DEC '22
Project Schedule																								
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Task	JAN '21	FEB '21	MAR '21	APR '21	MAY '21	JUN '21	JUL '21	AUG '21	SEP '21	OCT '21	NOV '21	DEC '21
SRF Schedule												
Submit Project Evaluation Form (PEF) to MassDEP												
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MA State Revolving Fund

- The Phase 2 project ranks high on the list of potential projects to be funded by the State Revolving Fund (SRF) .
- The SRF offers loans between 0% and 2.0% depending upon the specifics of the project. Today's rate for conventional municipal bonds is approximately 3.5% .
- To submit a formal application the town must first seek town meeting / ballot vote to authorize the borrowing.
- The SRF is a significant opportunity to minimize the interest expense . As an example consider a **\$20,000,000 borrowing with a 30 year term**. Using the SRF at 2.0% interest the total interest would be \$6,612,602 versus a 3.5% conventional municipal bond at 3.5% with a total interest of \$12,331,218 . **The result is an interest savings of \$5,718,616 using the SRF source of funds.** With a 20 year term the interest savings is \$3,555,666 . In either term scenario the interest savings appear to outweigh the potential project cost uncertainty of engineering estimate versus construction bid prices .

Grinder Pump Information

- A grinder pump is required in those property owner sewer connections which can not use gravity to move the sewage from the house / business to the sewer line in the street. This usually results from the relative elevation of the outlet at the building foundation being below that required to provide gravity flow of sewage to the sewer line in the street.
- CDM Smith has considerable experience with a grinder pump from **E/ONE model DH071 which is typically installed outside of the foundation in the ground.** The pump includes a 70 gallon storage tank . The pump enclosure is made of high density polyethylene (HDPE) which is tough and corrosion resistant. This grinder pump can accommodate flows of 700 gallons per day.
- The grinder pump is automatically activated and runs for very short periods of time. Typical electrical consumption for a household using 250 gallons of water per day is less than 10 kWhr per month to run the pump. At \$0.15 per kWhr the cost of electricity would be \$1.50 / month.
- The pump operates on single phase 120 or 240 volt , 60Hz supply from a dedicated 30 amp breaker in your panel board .
- A typical grinder pump is 30 inches in diameter and 7 feet tall.

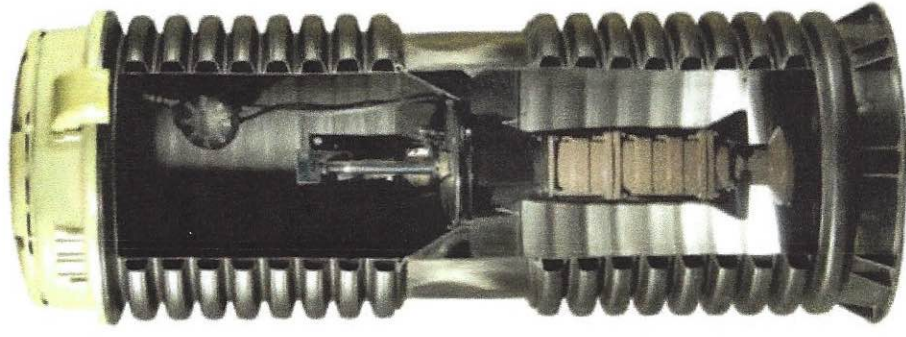
- When installed in the ground only the access cover is visible. There is a small alarm panel typically located on the side of the house to alert the homeowner of potential malfunctions.
- The manufacturer claims an average of 8 to 10 years between service calls.
- From the standpoint of installation and service it is advantageous to standardize on a single source / model of grinder pump(s) throughout the sewer service area.
- Some communities have elected to provide the grinder pumps to the homeowner during the initial installation with the homeowner responsible for the monthly electric consumption and ongoing service / maintenance / replacement. **The Harwich Board of Selectmen will need to determine how Harwich will handle grinder pumps.**

The Pressure Sewer System

Owners *Guide*



Environment One Corporation
A Precision Castparts Company



The Pressure Sewer System

A pressure sewer system is used in certain areas because of the unsuitability and/or cost of a conventional sewer system.

The pressure sewer system consists of a pumping unit installed on your property which is connected to a network of pipes from other pumping units in your area.

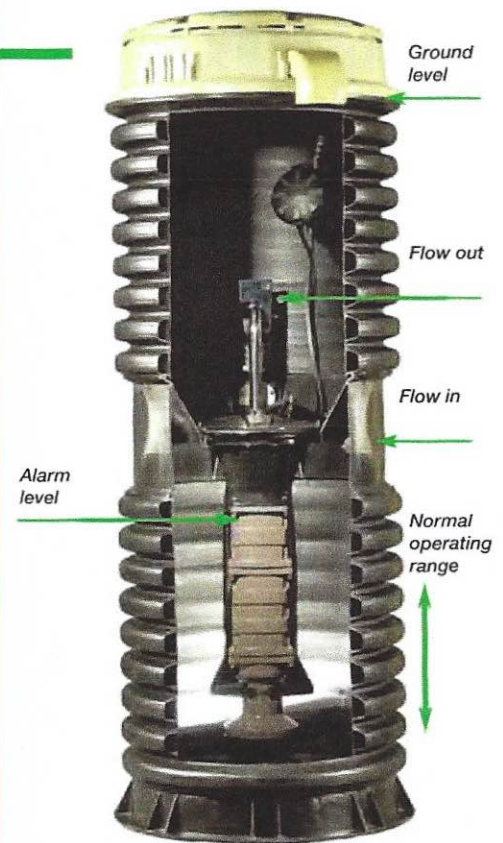
These pipes transfer wastewater to the sewer system or treatment plant.

The systems installed are E/One grinder pump stations and are very reliable and robust.

There is not much you need to do and very little that can go wrong. The diagram opposite shows how it works.

In the event of a power outage, limit water usage as much as possible.

** Your grinder pump station may be different than model shown.*



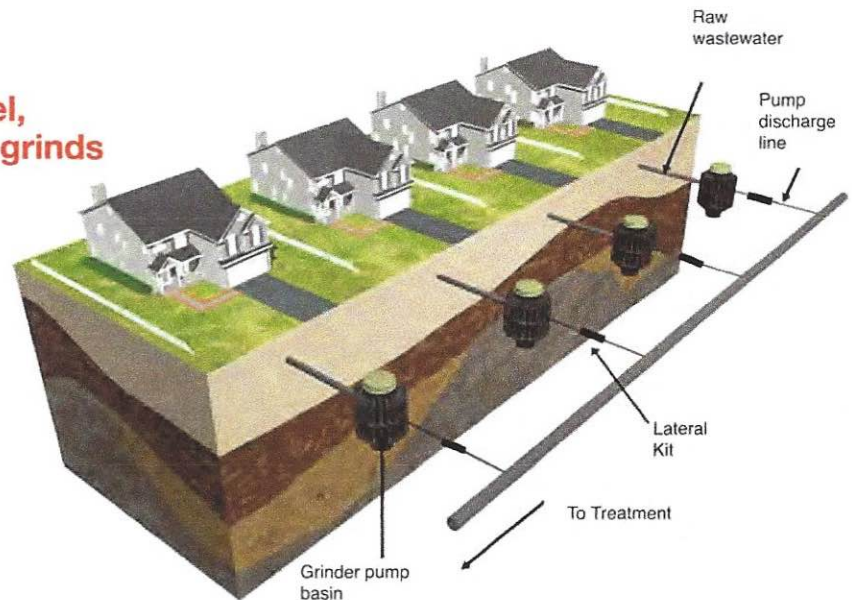
Using the System

There are a few things you need to know to ensure the system runs smoothly.

The system operates like a normal sewer system, taking waste liquids from your toilet, sink, shower, bath, dishwasher and washing machine and transferring it to the sewer system or treatment plant.

*To avoid blockages and damage to the pump, the following items should **NOT** be placed into any sewer system:*

- Glass
- Metal
- Abrasive materials including gravel, sand, aquarium stone, and coffee grinds
- Seafood shells
- Socks, rags or cloths
- Plastic
- Sanitary napkins or tampons
- Disposable diapers
- Kitty litter
- Explosives
- Flammable materials
- Lubricating oil, grease, paint, large amounts of cooking oil
- Strong chemicals
- Gasoline or diesel
- Stormwater runoff
- Personal wipes (and other products marked "flushable")

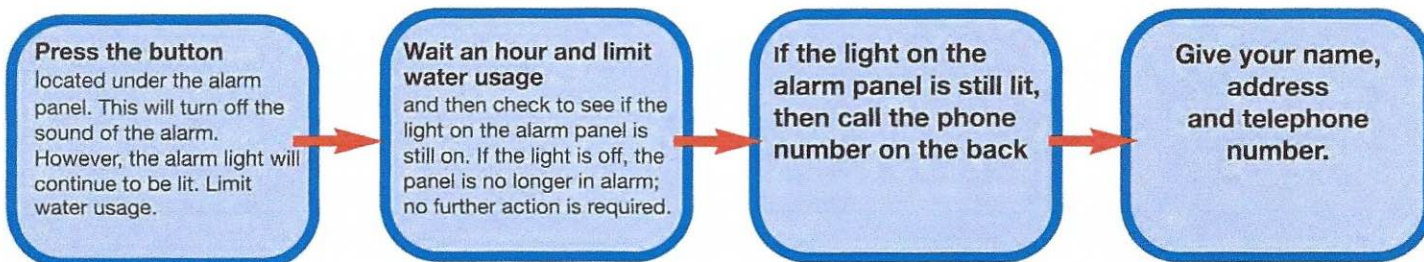


What to do if the alarm sounds

Turn off the sound of the alarm by pressing the silence button underneath the alarm panel. **Limit water usage.**

If the alarm light is still active after an hour, then call the phone number located on the back of this pamphlet. If the alarm sounded and the system subsequently cleared itself, you should consider what caused this to happen.

If you notice any irregularity with the unit, such as the alarm sounding frequently, then contact the phone number located on the back of this pamphlet.



DO NOT ATTEMPT TO REPAIR THE UNIT YOURSELF

The system is damaged and/or needs repair

- If the alarm sounds, follow the alarm procedure on the previous page.
- If it is a water supply pipe, **turn off your water supply and contact a plumber for repair.**

Odors coming from the grinder pump station?

- When operating normally, there should be no noticeable odors coming from the unit. If there are odors, the unit may need flushing. Run clean water down your kitchen, laundry or bathroom sink for about 10 minutes. **If odors persist, call the phone number located on the back of this pamphlet.**

You notice wet spots around the pumping unit or the discharge pipe?

- The pumping unit and discharge pipe are totally sealed. If you notice wet spots around the unit or pipe and there has not been any recent rain, **call the phone number located on the back of this pamphlet.**

The alarm keeps going off when it rains?

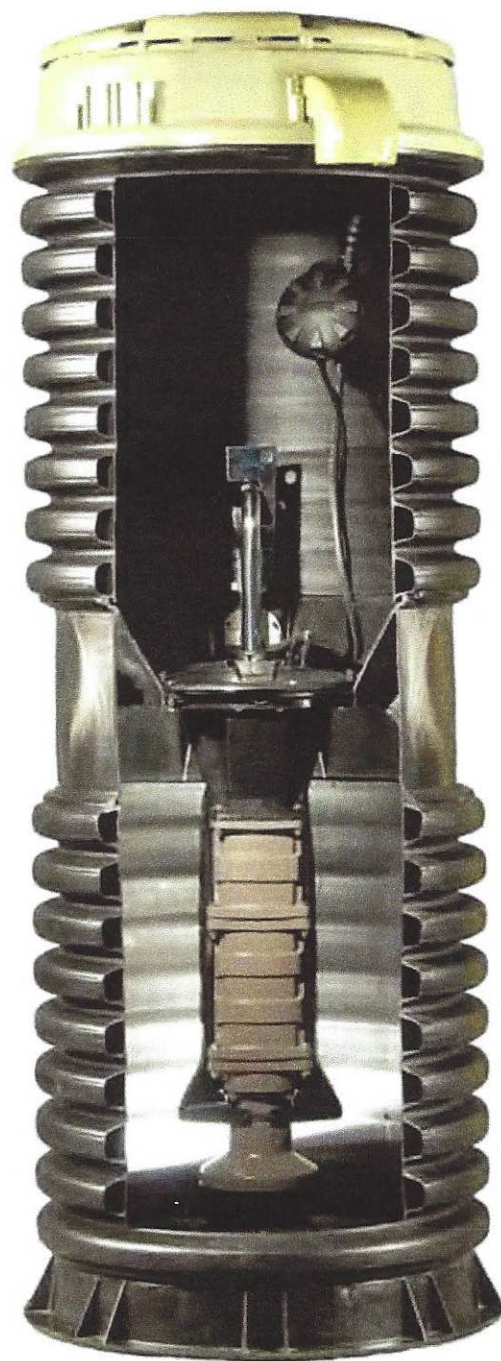
- It means rainwater may be getting into your system and over loading it. **Contact your plumber to investigate.**

The neighbor's alarm goes off and they are away?

- **Call the phone number located on the back of this pamphlet immediately and report the problem.** Do not investigate the problem yourself.

There is a power failure?

- If there is a power failure, reduce water use where possible. The alarm may activate until the unit clears itself. If the alarm remains on for over an hour after the power has been restored, **call the phone number located on the back of this pamphlet.**



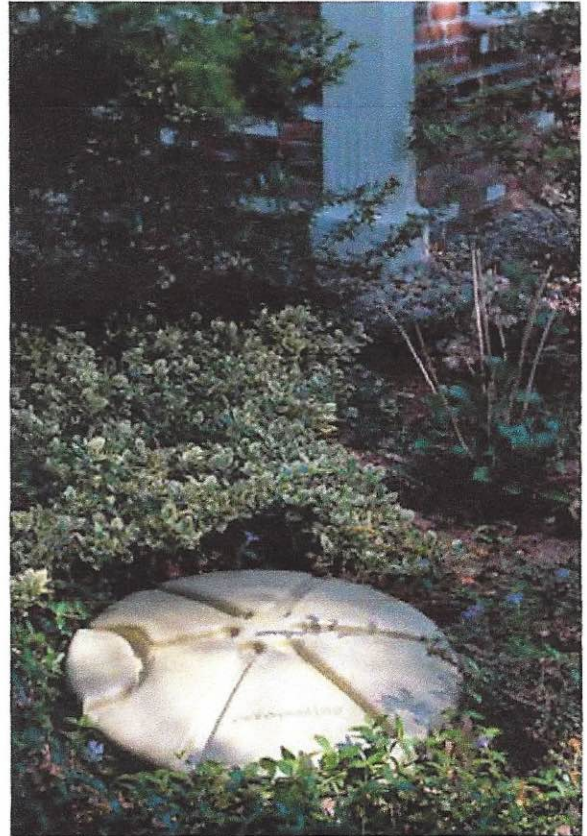
On your property

Be aware ...

- *Do not touch the valves*
- *Do not turn off the power to the pump*
- *Do not block the vent on the pump station*
- *Do not cover the pump station lid*

Contact E/One or your local distributor if you are making modifications to your home which may affect the system, such as installing a spa or swimming pool or extending the house over or near the unit or discharge pipe.

Ensure access is available to the pump station at all times. Keep plant growth and other debris away from the unit.



If you go on vacation for a length of time, flush the system before you go away. Run clean water into the unit until the pump activates. Turn off the water and allow the grinder pump to run until it shuts off automatically. If you have a duplex unit (two pumps), special attention must be taken to ensure that both pumps turn on when water is added to the tank.

Take care when **digging in the yard near the pump station** or the discharge pipe. If you do accidentally break any pipeline, call the phone number located on the back of this pamphlet immediately and minimize use of water in the house. Do not attempt to repair the system yourself. You will be responsible for the cost of these repairs.

If you have a pool or want to install a pool or spa, **contact your local distributor for further information.**

If you require further information about the pressure sewer system ...



273 Weymouth Street-Rockland, MA 02370

E/One Pump quote pkg.
9/22/15

tel. 781.982.9300
fax. 781.982.1056

info@frmahony.com
www.frmahony.com

Mr. Carl Luck
Lunenburg Sewer Commission Chairman
520 Chase Rd.
Lunenburg, MA 01462

September 15, 2015 Rev 2.

Gen. Transfer Break Out

RECEIVED

SEP 22 2015

SEWER COMMISSION

RE: Proposal to Residents of Lunenburg – Questions on options and how to purchase a Grinder Pump.

Dear Carl:

Please find our revised scope of supply based on the comments and requests of September 10, 2015.

As the fully authorized sales and service providers in the six New England States of Massachusetts, New Hampshire, Maine, Vermont, Connecticut and Rhode Island we are pleased to offer the Environment One Grinder Pump system to the residents of the Town of Lunenburg.

FRMA and E/One have been the industry leader in pressure sewer systems for over 40 years. We have provided pressure sewer sales and service in New England for 38 years to communities such as Lunenburg. FRMA provides full support for all service and warranty needs and remains one of the top authorized and certified service centers.

Environment One Corporation offers the most comprehensive and unparalleled warranty in the industry. Our warranty is a full, manufacturer's parts and labor warranty provided through the F. R. Mahony Service network.

FRMA provides 24/7 service support from our local service centers in Southbridge and Rockland, MA.

We are offering pricing based on a 36 month period beginning September 15, 2015 through September 15, 2018. Extensions to this timeline may be negotiated as necessary.

You have asked for the following as of September 10, 2015:

1. Unit price quote for the grinder pump stations, indoor and outdoor without ballast (There is a potential of 80 grinder pumps if all parcels connect and all choose the same vendor.)
 - Pricing is listed below as requested
2. Any required ballast material should be a separate line item
 - Pumps installed outside do require ballast to secure them from uplift forces of groundwater. Our offering below provides >100% of the ballast required under fully saturated soil conditions.

Supplying water supply and pollution control equipment since 1964

273 Weymouth Street
Rockland, MA 02370
tel. 781.982.9300
fax. 781.982.1056

30 DuPaul Street
Southbridge, MA 01550
tel. 508.765.0051
fax. 508.765.1244

41 Bayberry Hill Road
West Townsend, MA 01474
tel. 978.597.0703
fax. 978.597.0704

140 Country Walk Road
Schenectady, NY 12306
tel. 774.402.0354
fax. 518.356.3266

December 14, 2012

3. The model numbers providing (outdoor and indoor) that they meet the specification.
 - Models are listed below in the product description. We take no exception to the specifications.
 - a. If providing a model that meets the spec and has more storage capacity, that should be listed as a separate line item.
 - All stations are quoted with generator connection capability. Please see our article sent under separate cover "What Happens When the Lights Go Out?" which has been posted to the Lunenburg Sewer Commission website. E/One and FRMA can provide our model DH151 station with 150 gallon wet well for cases that require additional storage.
4. Catalog cut sheet on the provided models
 - See attached cut sheets
5. Can the unit price be held three years?
 - Yes. We have agreement from Environment for a Special Price Agreement for the Lunenburg Project.
6. Include any options as separate line items (e.g. remote alarms, additional power cords, startup fees etc.).
 - Options are listed below in the pricing schedule. Standard with every purchase is complete startup inspection in accordance with the specifications.
 - Pumps are domestically manufactured and supported locally with full on-site warranty.
 - Panels will have standard generator transfer capability.
 - Options include:
 - Pump Protection package for low voltage/ brown out protection
 - Remote Sentry battery powered redundant high level alarm to help owners know what is happening during a power failure.
 - Pumps, panels, basins are fully tested at the factory and certified as complete assemblies under UL508 and NOT simply certified components. This is a key distinction between E/One and our competitors.
 - Further our tanks and pumps are certified under NSF National Sanitation Foundation for function and structural integrity. This is yet one more distinction between E/One and our competitors.

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7. Operation and Maintenance items for informational purposes for the property owners. (This can be a separate document.)
- a. Cost of service contracts if they exist
 - Environment One Grinder pumps enjoy the longest Mean-Time-Between-Service-Calls of 8-10 years. This is well documented through over 45 years of successful installations throughout the USA and 39 countries around the globe, Service contracts are usually not of need or benefit to residents. Repairs can be covered under our regular service policy.
 - b. Identify any regular or special maintenance required
 - There is no regular or special maintenance required. Residents should follow the operating instruction provided with each pump. This lists items that are recommended for disposal in sewers by regulations and are recommended for disposal through the grinder pump.
 - No floats to clean
 - No probes to clean
 - No oil to change
 - c. We would like to have clear statement on service response time during warrantee and after.
 - When service is required owners are directed to call our local service line in Southbridge, MA @ 508-765-0051.
 - Our normal hours are M-F 7:00 am to 4:30 pm.
 - After hour calls are taken by our 24/7 switchboard and directed to the service technician on call.
 - Each caller will be asked to explain the issue and service will be arranged based on the level of urgency. Owners will be provided with instructions on what to do during these situations.
 - More information and our full service policy can be found at www.frmahony.com

Supplying water supply and pollution control equipment since 1964

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d. Any other information that may be helpful in the residents' decision process.

- Our service technicians are factory trained through our New York headquarters and further trained through continuing education and certification.
- Our service vehicles are stocked with genuine E/One parts and spare pumps/loaners for use when repairs cannot be completed immediately on site.
- FRMA staff has well over 100 years of combined experience in the design, sale and service of pressure sewer systems.
- FRMA is one of the longest standing distributors for Environment One Corporation supporting well over 50,000 installations in our tenure.
- Our products are fully factory assembled and certified through third party verification of UL, NSF, CSA, and IAPMO and assembled under strict conformance to ISO9001:2008. These standards require a great deal of effort to achieve and are measures of the quality and care that go into the manufacturing and safety features of your appliance.

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December 14, 2012

E/ONE PUMPS



water supply and pollution control equipment

273 Weymouth Street Rockland, MA 02370

tel. 781.982.9300
fax. 781.982.1056info@frmahony.com
www.frmahony.com**Station Pricing - With Basic or Generator Transfer Panel and 3 year warranty on DH071 station.**

Note: IH091-IDU has Factory 5 year warranty standard

Station Model	Cost	Bal-Last Ring Installed	Total	Warranty
DH071-93 Basic	\$3,288.00	\$341.00	\$3,629.00	3 Year as Requested
DH071-93 Gen Xfr.	\$3,477.00*	\$341.00	\$3,818.00	3 Year as Requested
IH091-IDU Indoor	\$3,299.00	NA	\$3,299.00	5 year standard
IH091-Indoor Gen	\$3,702.00**	NA	\$3,702.00	5 Year standard

- Prices based on 32 foot supply cables. Longer cables available 50, 75, 100 ft. (see cable adders bellow)
- Start Up inspection, 4 foot discharge whip and coupling.
- Prices based on fixed price for 36 months or 9/15/2018 whichever comes first.
- Price does not include freight
- Price does not include sales tax

Options-

Description	Applicable to Station	Cost
50 foot power cord	DH071 Outdoor station	\$23.00
75 foot power cord	DH071 Outdoor station	\$57.00
100 foot power cord	DH071 Outdoor station	\$90.00
Generator Transfer Panel Adder	DH071 station	\$189.00*
Generator Transfer Panel	IH091- Indoor Station	\$403.00**
Remote Sentry Battery Alarm	IH091-IDU	NC Included standard
Remote Sentry Battery Alarm	DH071 Outdoor Station	\$171.00
*Brown Out Protection Option	DH071 and IH091 Station	\$127.00

- Prices based on fixed price for 36 months or 9/15/2018 whichever comes first.
- Price does not include freight or sales tax

*Our products have been designed with consideration of the power loss issues that have rocked our region in the past. While most utilities are very reliable and power loss is rare, the recent severe weather has caused some memorable events. Lunenburg has not escaped these events in the past.

We offer our Sentry Protect panel features to protect pump motors from low voltage, line surge and inadvertent closed valve conditions. These systems have been tested in communities such as Oak Bluffs and Cohasset, MA. Both communities suffered from issues of main line closure and phase loss and low voltage respectively. The Protect Panels provide full pump protection and prevented motor and pump failures that could have resulted from these events. We believe that the Sentry Protect Panel with the ability to connect a portable Generator is a valuable asset to providing reliable service.

Supplying water supply and pollution control equipment since 1964

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tel. 781.982.9300
fax. 781.982.1056

30 DuPaul Street
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fax. 978.597.0704

140 Country Walk Road
Schenectady, NY 12306
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fax. 518.356.3266

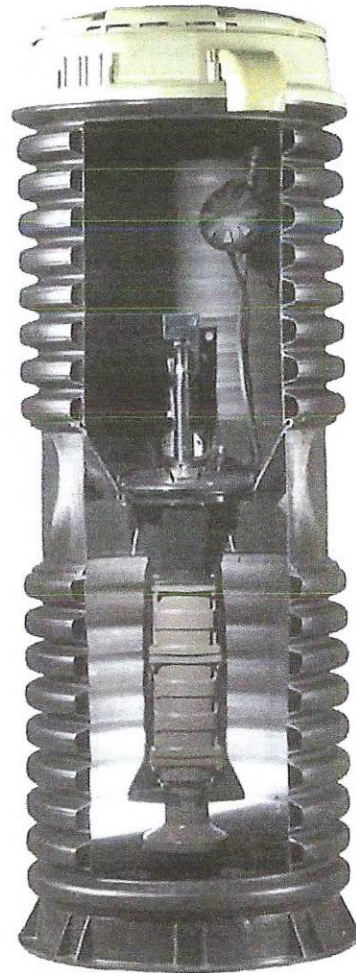
December 14, 2012

There are a number of options requested and available in item # 2 and we will do our best to provide the best options to meet your needs.

This offering is based on two options for pump models.

Outdoor model –

- **DH071-93** Drywell/Wet well configuration, simplex grinder pump. This station was the basis of the design for the Lunenburg sewer system for the Pratt Street & Lakeview Avenue Service Area. This station utilizes a semi-positive displacement pump with large, 5-1/2 inch inlet grinder which provides for tank mixing and high torque solids grinding. Our semi-positive displacement pump is designed to operate to pressures in excess of 80 psi or 185 feet of head.
- This station is fully assembled and tested at the factory in Niskayuna, NY. The double wall, HDPE (high density polyethylene) basin is ready to install with only field piping and wiring required.
- These stations have a separate accessway dry well above the wastewater level. Access to the wastewater is secured by our pump core to prevent accidental contact. The top cover is secured with stainless steel hardware.
- Each station is provided with our Sentry Alarm Panel with 32 foot power supply cable (see options) and is generator ready in times of need.
- The Sentry Alarm panel (option below) provides for low power/brown out protection to protect your investment from potential power loss issues.
- Included with each pump system is full start up inspection following installation; included visual inspections, electrical testing of pump operation and alarms.
- Each pump comes with 4 foot by 1-1/4 inch discharge whip and connection coupling to connect to the stainless steel discharge piping.
- Inlet piping grommet is standard 4-inch SCHEDULE 40 PVC
- **These stations are fully certified by UL, NSF, and CSA as complete assemblies for product safety and reliability.**
- Pumps are generally in stock or within 2 weeks from our factory in Niskayuna, NY



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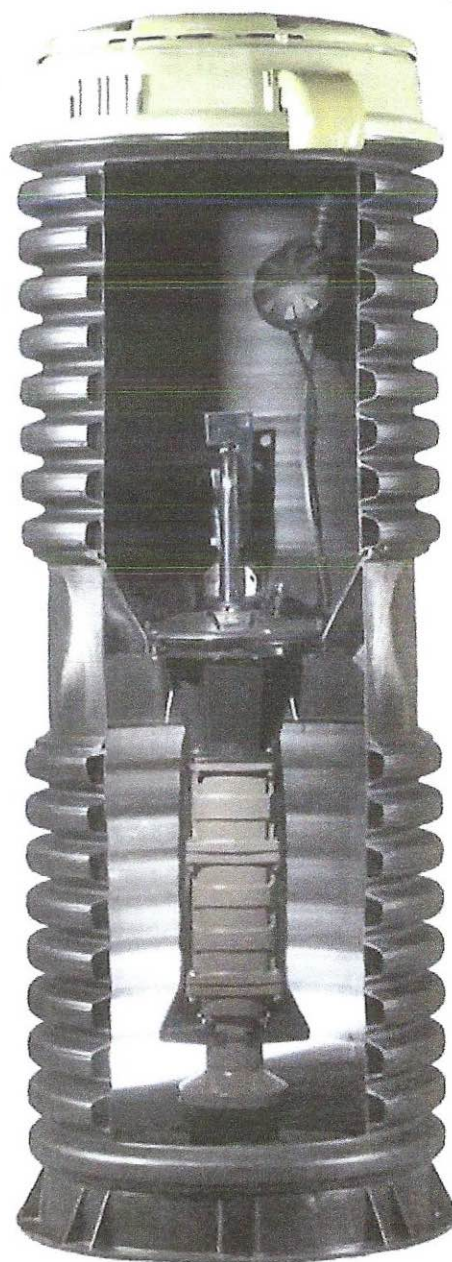
Why E/One?

When Environment One developed their D Series household grinder pump with Dry Well Accessway they paid attention to details and applied knowledge gained over 45 years of in the ground experience.

Features:

- Sealed wet well below accessway
 - No corrosion to controls
 - No odors leaving the station
 - Separate venting to wet well
- Electrical Quick Disconnect at top of station
- Fully removable pump core
 - No confined space entry required
- Stainless steel discharge pipe and pump removal piping
 - Long lasting
- Easy to handle nylon lift harness (not shown)
 - No confined space entry required
- Easy to remove pump core with quarter turn locking system
 - No confined space entry required
- Adjustable accessway height in 3-inch intervals
- What matters most is the safety of double access with bolted top access covers and the sealed upper accessway.

Or you could do what our competitors do.



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Why E/One?

- E/One invented and developed the pressure sewer/low-pressure sewer industry over 45 years ago. We are the most widely used and specified grinder pump by far. We are the industry leader.
- E/One wrote the book on design of pressure sewers and is the most widely accepted expert in the pressure sewer industry. As the Trusted Advisor, we are involved with the application from conception to installation and beyond.
- E/One has been and remains the industry leader worldwide in pressure sewer systems and support and has sales and service in over 39 countries around the globe. We have over 550,000 E/One systems in the world ranging in size from 1 unit to 7,000 connections.
- E/One is the standard by which others attempt to compare. Our system is maintenance free, fully automatic and designed specifically for the application.
- E/One is made locally in Niskayuna, NY (suburb of Albany). We have been made in America, in the same facility since 1969.
- E/One is solely focused on pressure sewer systems as their business model. Sole LPS Focus. This is all we do. We are committed to the application and customer because our survival as a company depends on it. When you choose E/One you don't get just a trusted partner. You get a lifetime relationship.
- E/One sewers have the most reliable, documented service record in the industry with a mean-time between service calls of 8-10 years. We have demonstrated data to prove annual O&M costs of less than \$50 including power usage.
- E/One offers the most comprehensive warranty in the industry including parts and labor on site. You don't have to send your grinder pump to the factory for parts only replacement! Unlike other companies, we do not require that you return the pump yourself. E/One's warranty is the most comprehensive in the industry.
- E/One Drywell access stations provide added safety with secondary access to the wastewater pump chamber avoiding confined space maintenance issues.
- E/One products are fully certified to be safe and reliable as complete assemblies by UL, NSF, CSA, IAPMO, Massachusetts Plumbing Examiners and many more.
- **Learn More www.eone.com**

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Homeowner Financing Considerations

- Bank Loans
- County Loan Program
- Abatement / exemption program for low income residents