

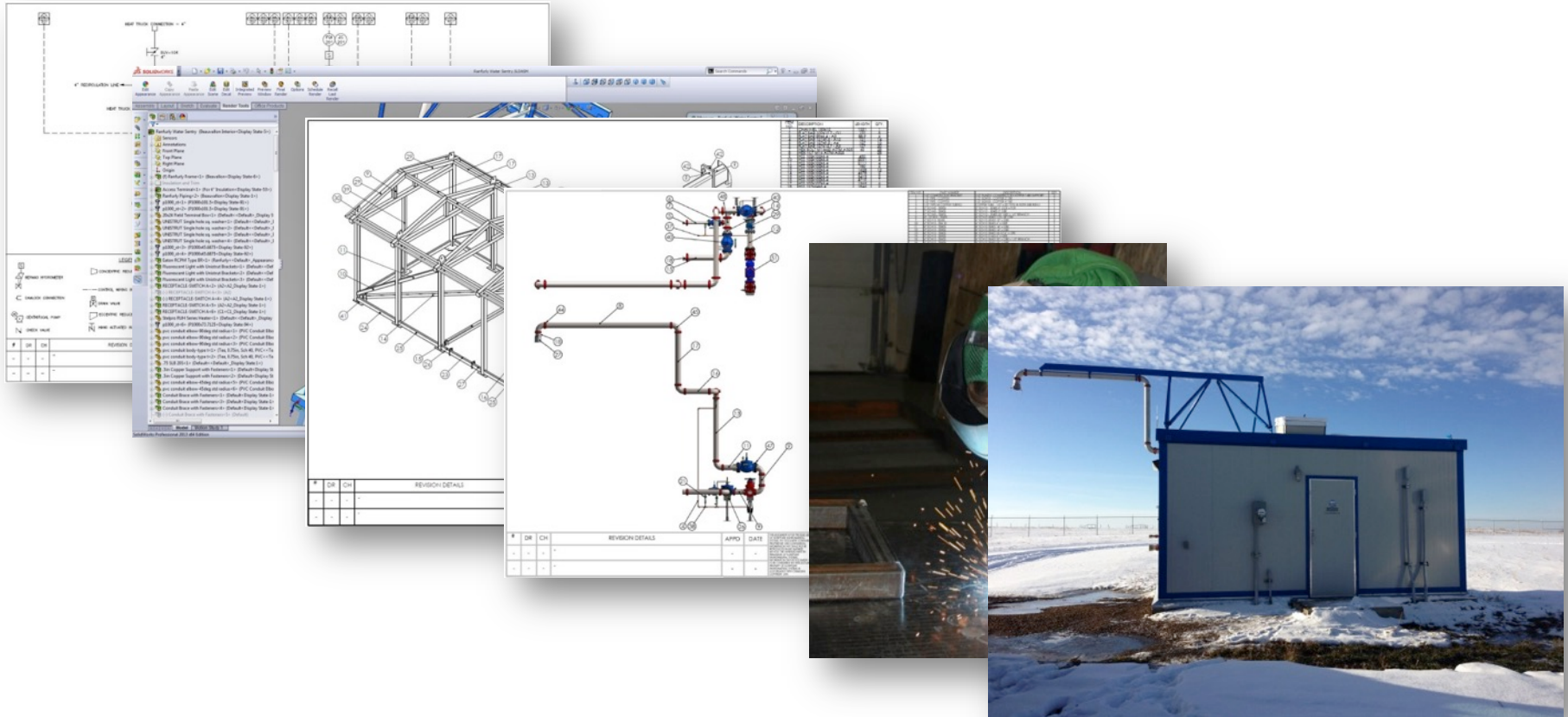


## Advantages of Modern Septage Receiving Stations

2016 NEWEA/NYWEA Conference – Michelle Harrod, New England Water Group

# What we do

- Design and manufacture turn-key water and wastewater process buildings

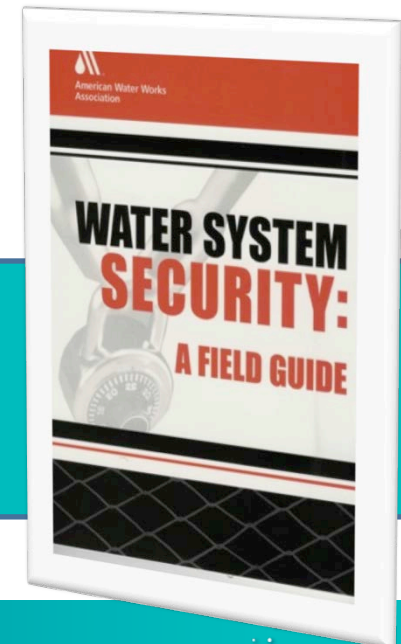


# Reasons for managing our systems

## WHY MANAGE WATER DISTRIBUTION AND SEPTAGE COLLECTION SYSTEMS?

- Protect Infrastructure (Security)
- Reduce Administrative Burden
- Monitor Waste (Increase Accountability)
- Create Revenue Stream

“If a perpetrator is given access to a fire hydrant, it is the same as, if not worse than, giving him access to your treatment plant” GEORGIA, TEXAS, LOUISIANA RURAL WATER



# Infrastructure Security

- Do you know who is using your system?
- Do you have controlled access to your system?
- Are access points to your system fixed and established?





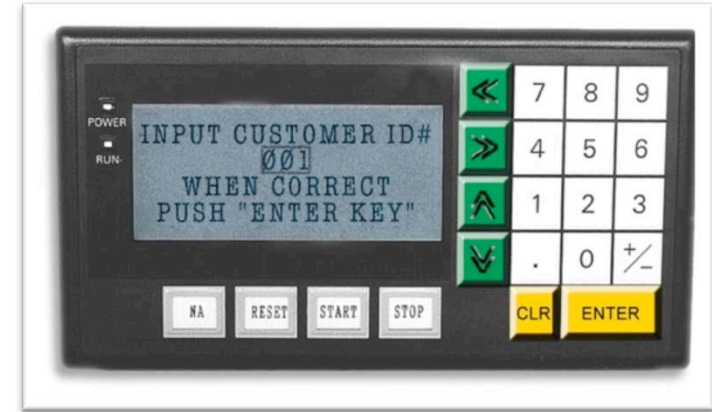
# Protect Infrastructure

- Manholes are not designed to receive septage (grease)
- The public is one of the best policing and enforcement tools



# Control Access

- Provide locations for septage disposal
- Provide control to these access points



Before



VS

After



# Administration Basics

- How do you administer outside users accessing your system?
- What is the network infrastructure if any?
- Do you have an inspection program in place?
- How do your customers pay for using your systems?
- Do you spend more time guessing and chasing than monitoring and reporting?



# Administration Basics

- Seamless administration through software based billing and control systems
- Automated monitoring, checking and auditing reduces administrative burden

The screenshot shows the 'Maintain - Carrier' window. It features a table of carriers with columns for Carrier ID, Company, Street, City, Contact, and Phone. A detailed view of a selected carrier is shown in a pop-up window. The detailed view includes fields for Carrier ID, Company, Street Address, City, State, ZIP Code, Phone, Fax, Cell, Contact, Billing Discount %, Service Charge Type, and Account Active. A 'Trucks' section is also visible, showing a list of trucks with columns for Truck #, Load #, Driver Name, License Plate #, and Load C.

Carrier ID	Company	Street	City	Contact	Phone
100	A-1 APPLIANCE PLUMBING	7440 SW MORRILL ROAD	WAKARUSA	Jason Hoffhaus	(785) 862-2149
150	A-1 SEPTIC TANK CLEANING	1119 NW 39th STREET	TOPEKA	Tamara Russell	(785) 286-2202
200	A-2 SEPTIC SERVICE	5825 NW 62nd STREET	TOPEKA	Randy Murray	(785) 286-2945
250	DARLING INTERIORS				
300	DAY'S SEPTIC CLEANING				
350	DJ ENVIRONMENTAL				
400	DOVING'S SEPTIC				
450	ENVIRON DEV OR				
500	KINGSTON ENVIRON				
550	LIQUID ENVIRON				
600	MOVE IT PROFFES				
650	REDDI SERVICES				
700	SUPER CLEAN PL				

The screenshot shows the 'Maintain - Station' window. It features a table of stations with columns for Station ID, Station Name, Location, Billing Rate, and Billing Cycle. A detailed view of a selected station is shown in a pop-up window. The detailed view includes fields for Station Name, Location, Billing Rate, Billing Cycle, and Station Status. A 'Trucks' section is also visible, showing a list of trucks with columns for Truck #, Load #, Driver Name, License Plate #, and Load C.

Station ID	Station Name	Location	Billing Rate	Billing Cycle
1	Grease Unloading Facility	Oakland WVTP		
2	Station # 2			

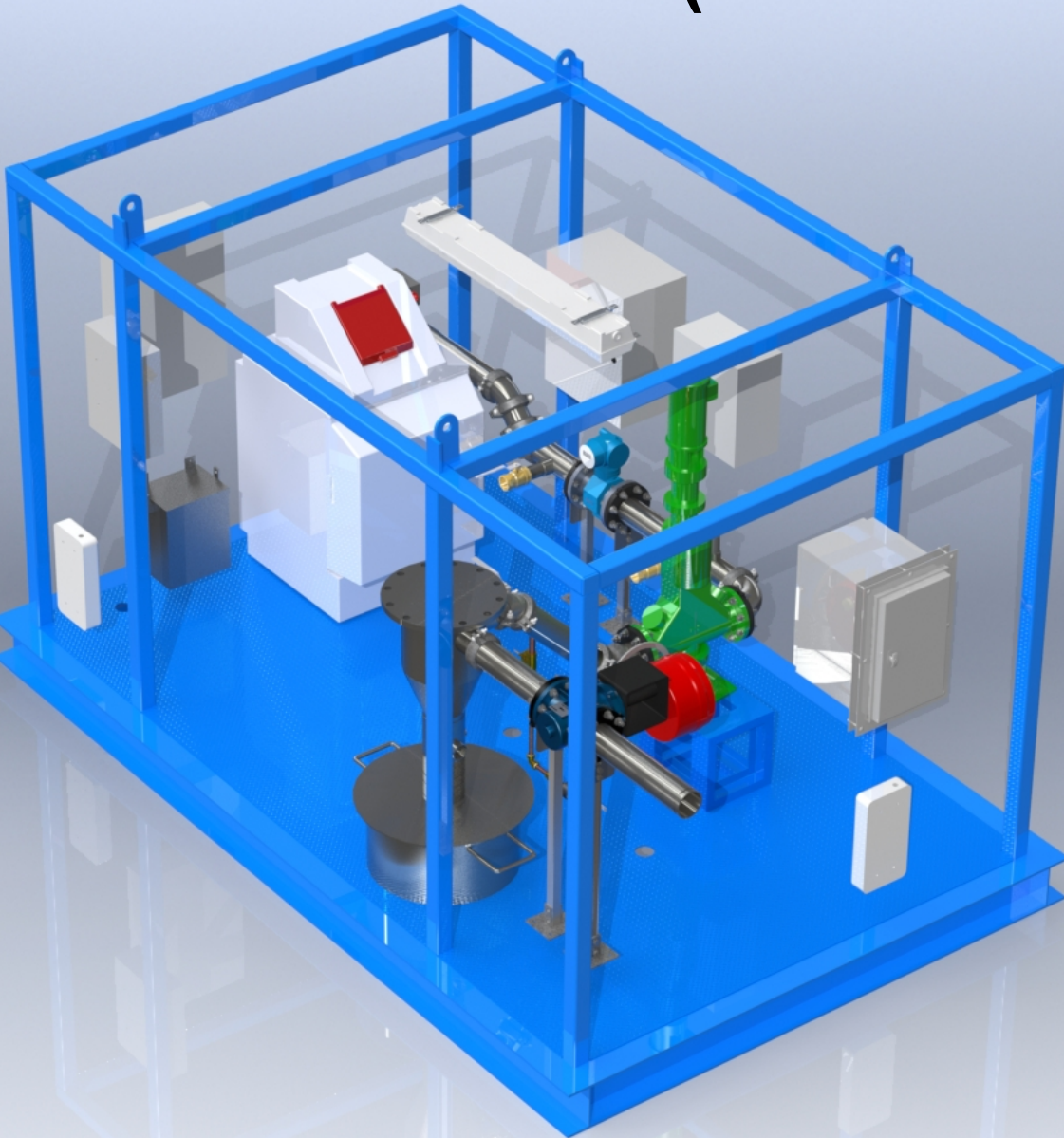




Septage+



# Monitor Waste (Accountability)



# Revenue Basics

- What does your infrastructure cost you to install and maintain?
- What does it cost you to operate your system?
- Do you get a return on your investment that pays for operation and future upgrading?

# Revenue Scenarios

## *Sewage Receiving*

Users	Loads / Day / User	Gallons/	\$ / 1000	\$ / 5 Day	\$ / Year
5	2	3000	\$20.00	\$ 3,000	\$ 156,000
10	2	3000	\$20.00	\$ 6,000	\$ 312,000
20	2	3000	\$20.00	\$ 12,000	\$ 624,000



# What kind of septage systems are available?

- Uncontrolled access (manholes or pits)
- Controlled or gate access
- Weigh scale system
- Smart card system
- Keyless / cardless PIN

# Uncontrolled access

- System operators directly dump into a manhole or lagoon
- Loads manually recorded with a manifest (sometimes)
- Sometimes samples are taken from the haulers
- Load size is generally estimated by the driver and/or the operator



# Controlled or gate access

- System operators control gate access
- Loads manually recorded with a manifest
- Sometimes samples are taken from the haulers
- Load size is generally estimated by the driver and/or the operator



# Weigh scale system

- Loads are weighed on the way in and out to determine volume
- Loads are tracked by a weigh scale operator (manifest) or in combination with the honor system
- Load tickets are left at the gate by the truck operators





# Smart card system

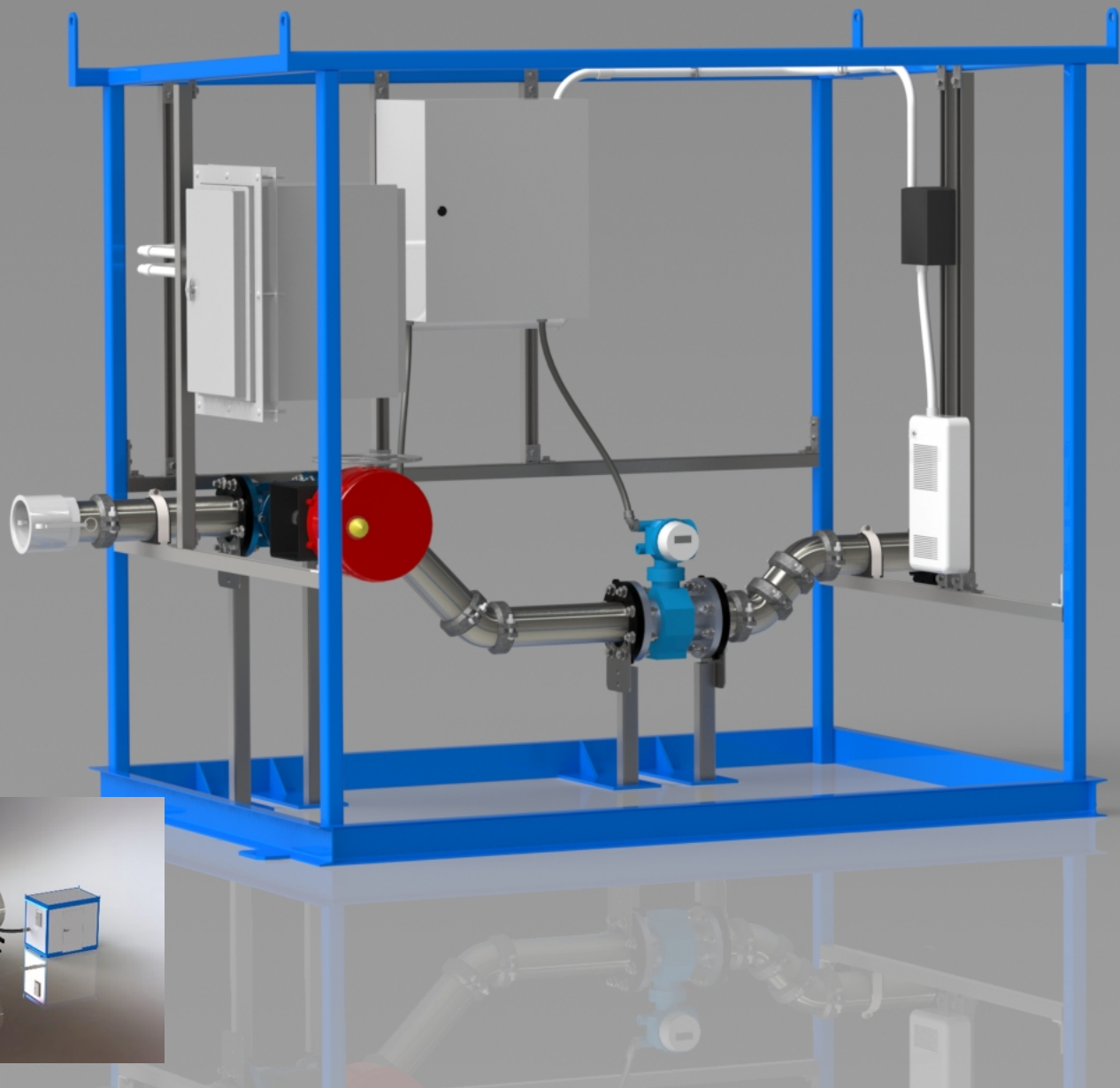
- May include a PIN number
- Cards can be lost, damaged or de-magnetized



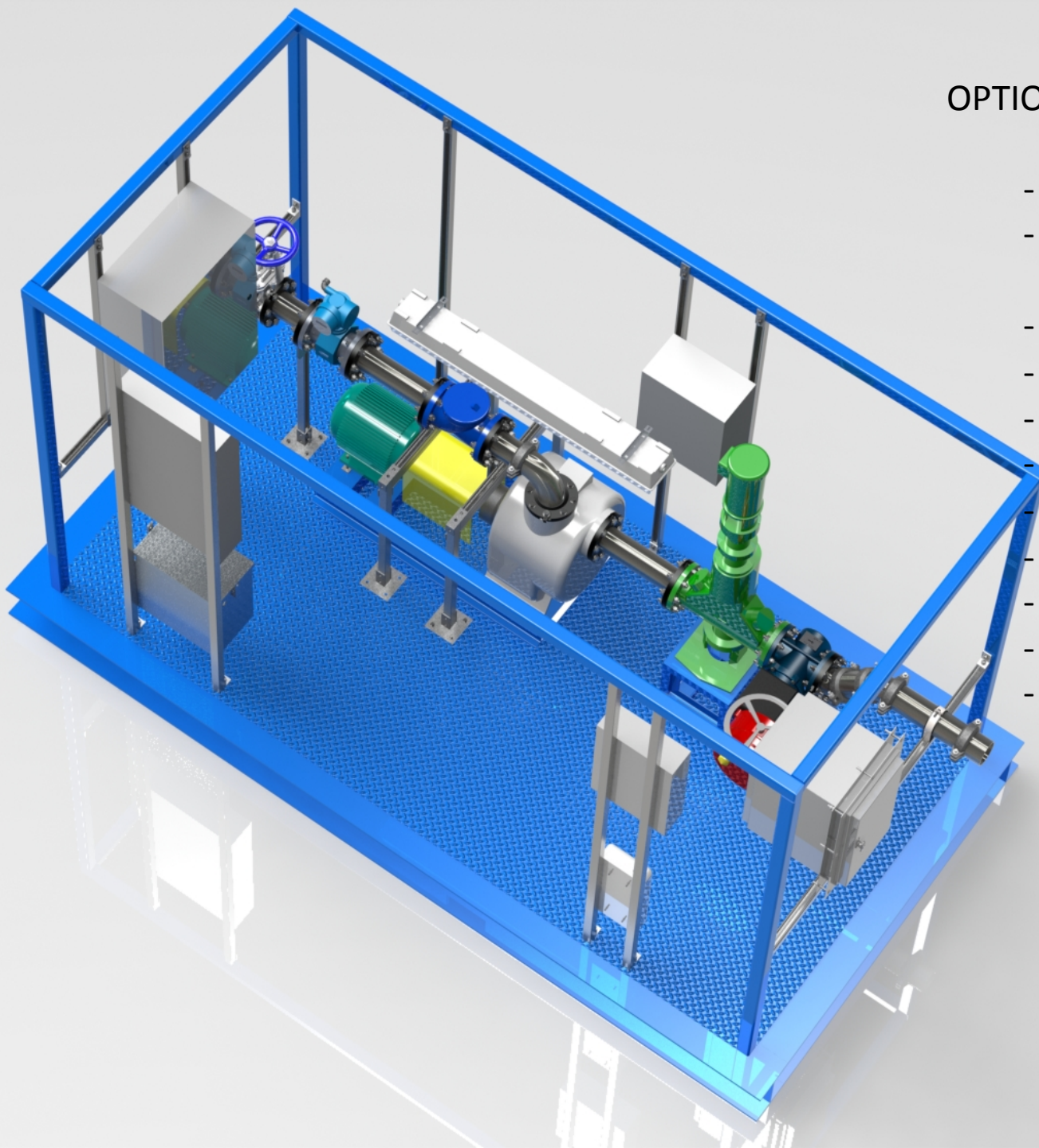
# Keyless / cardless system

- Software based with computer in admin office
- Invoices and/or statements are automatically generated
- Controls multiple stations from the admin office
- Instant activation or deactivation of accounts









## OPTIONS TO CONSIDER:

- Automated Flusher
- Automated Refrigerated Sampler
- Grinder
- Rock Trap
- Hose Reel
- Receipt Printer
- Online pH Monitor
- Online Conductivity Monitor
- Air/Vacuum Release Valve
- Fat, Oil, Grease Receiving
- ETC...





# Quality of materials and standards

- UL Requirements
- CSA Requirements
- NSF 61 Requirements
- AWWA standards
- Local plumbing regulations
- CWB certification

# Summary:

- Determine sizing requirements (flow, volume, frequency of fills or septage disposal, number of fill points / receiving points)
- Location, location, location
- Renovating an existing facility or building a new one
- Turn key options or component built options

# Summary:

- Determine communication path or network
- Establish a central area to control and manage the stations
- Use automation and technology to centrally manage, audit and report on station activity
- Invest in quality products that meet local and national standards





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