WESTFALL HEIGHTS

SANITARY SEWER INFORMATIONAL MEETING

Thursday, May 8th, 2014 at 7:00 PM to 9:00 PM

INTRODUCTION

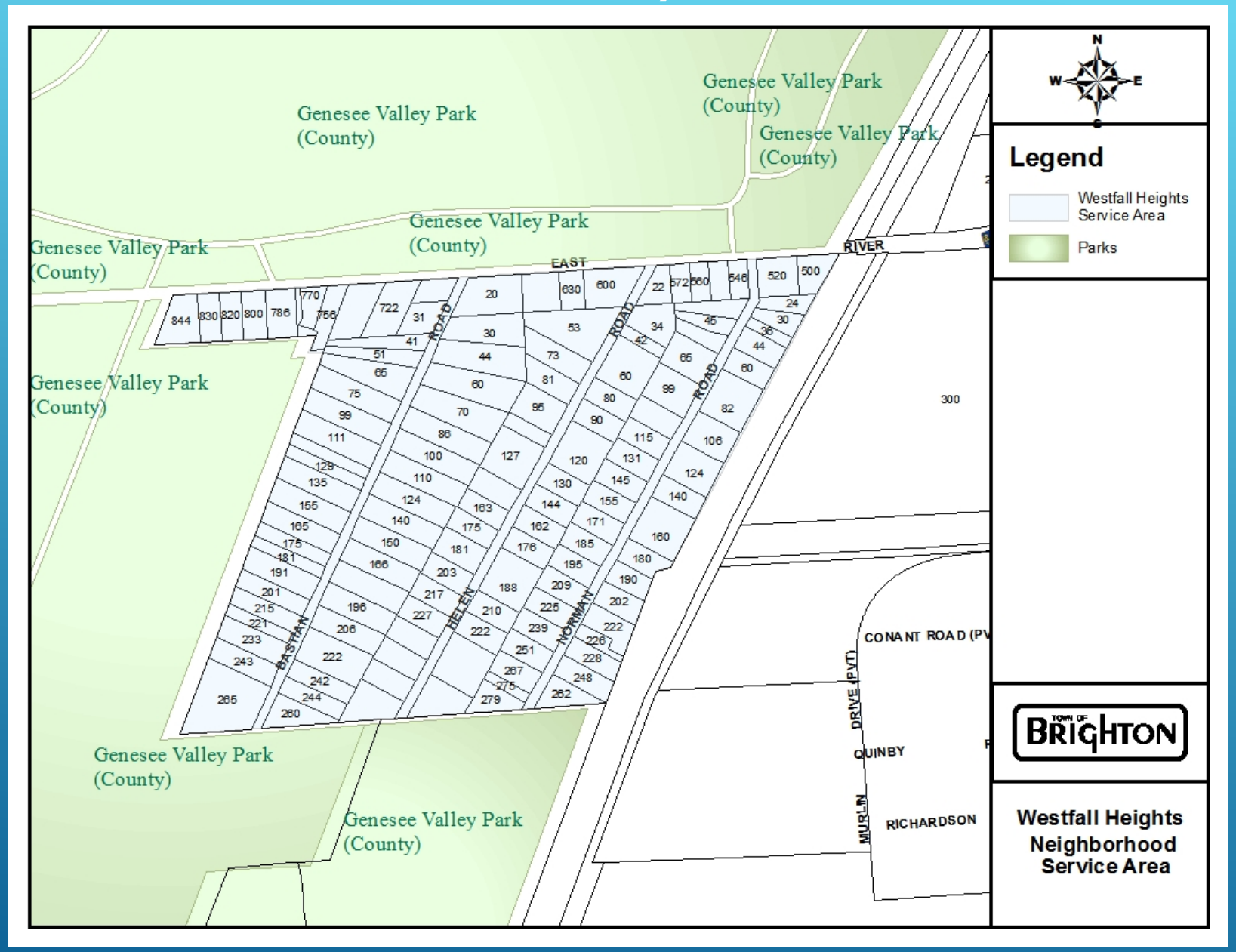
1. Introductions

2. Present the Results of an Evaluation to extend Sanitary Sewers to the Westfall Heights Subdivision.

3. Determine the Public Interest regarding the extension of Sanitary Sewers to the Westfall Heights Subdivision.

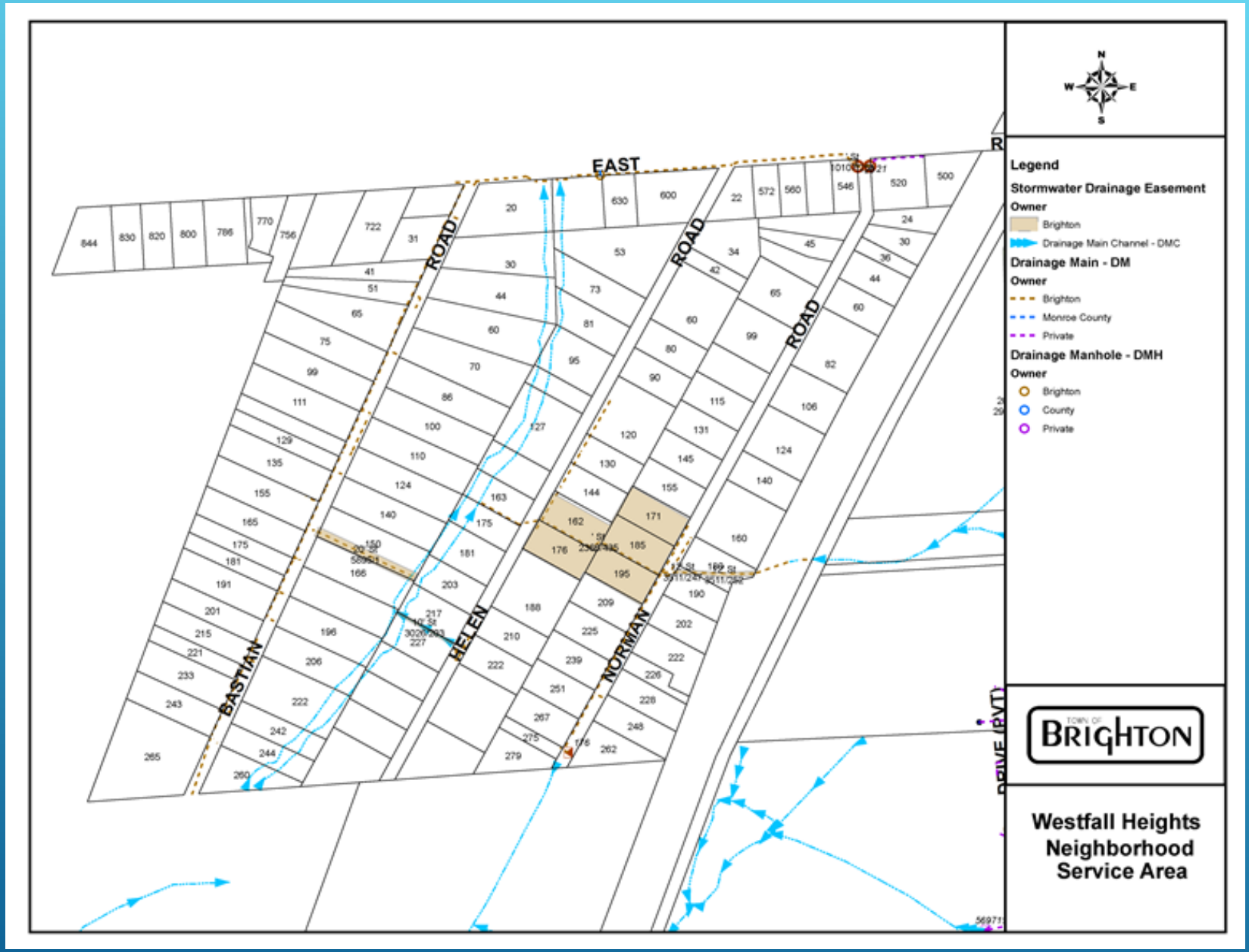
SERVICE AREA, (DISTRICT BOUNDARY)

- Area Currently Served by Individual Septic/Leach Bed Systems, ± 145 units
- Leachfield Vulnerabilities
  - Impervious Soils
  - High Water Table
  - Lot Area
  - Age
- Considered Area for Public Sewer
  - Proximity to Public Sewers
  - Density
  - Vulnerabilities



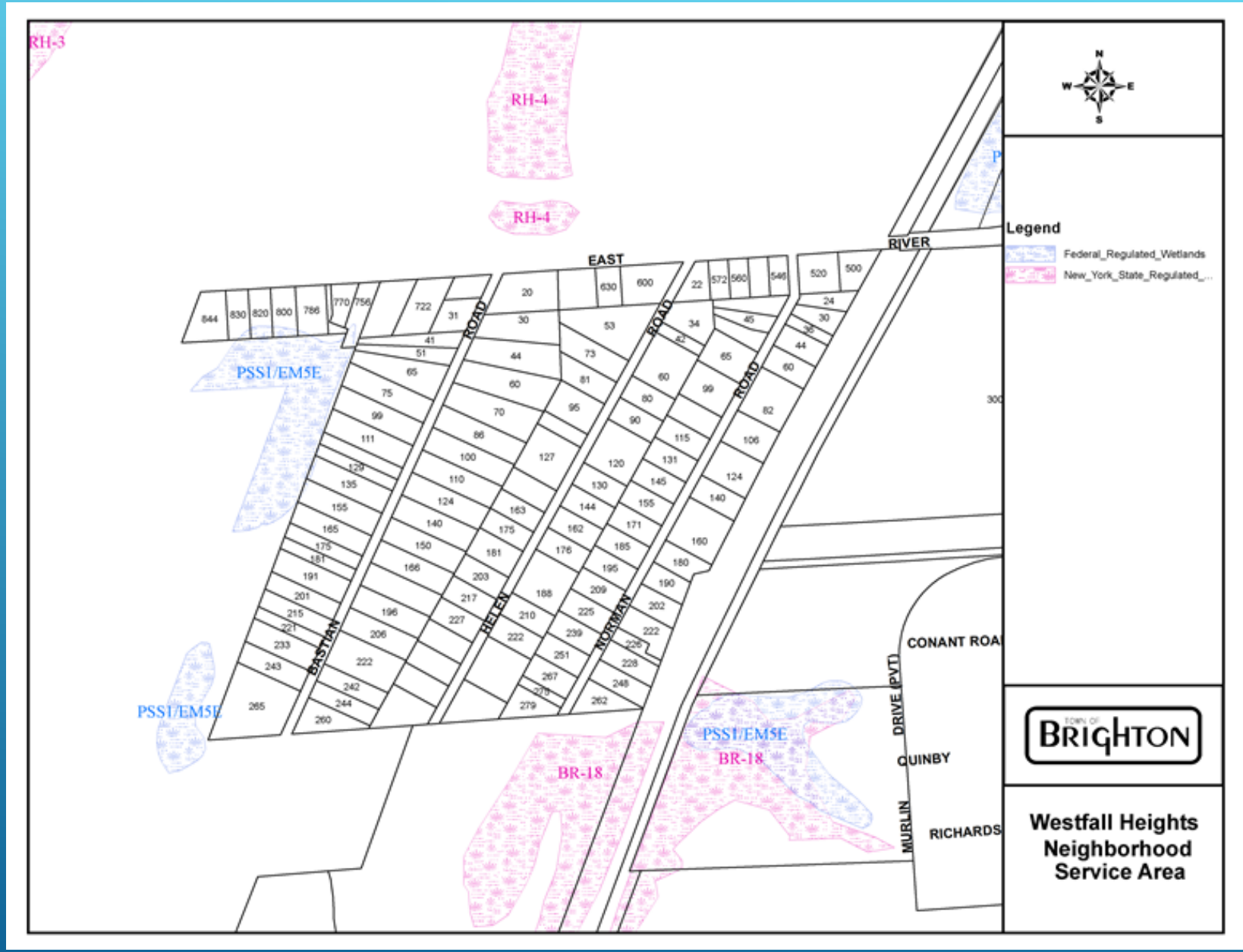
EXISTING CONDITIONS

Drainage Infrastructure



EXISTING CONDITIONS, (CONTINUED)

Wetlands Map



SEWER ALTERNATIVES

Conventional Gravity/Pump Station vs. Low Pressure/Grinder Sewer Systems

SANITARY SEWER COLLECTION SYSTEM ALTERNATIVES

1. **Conventional Gravity/Pump Station System**

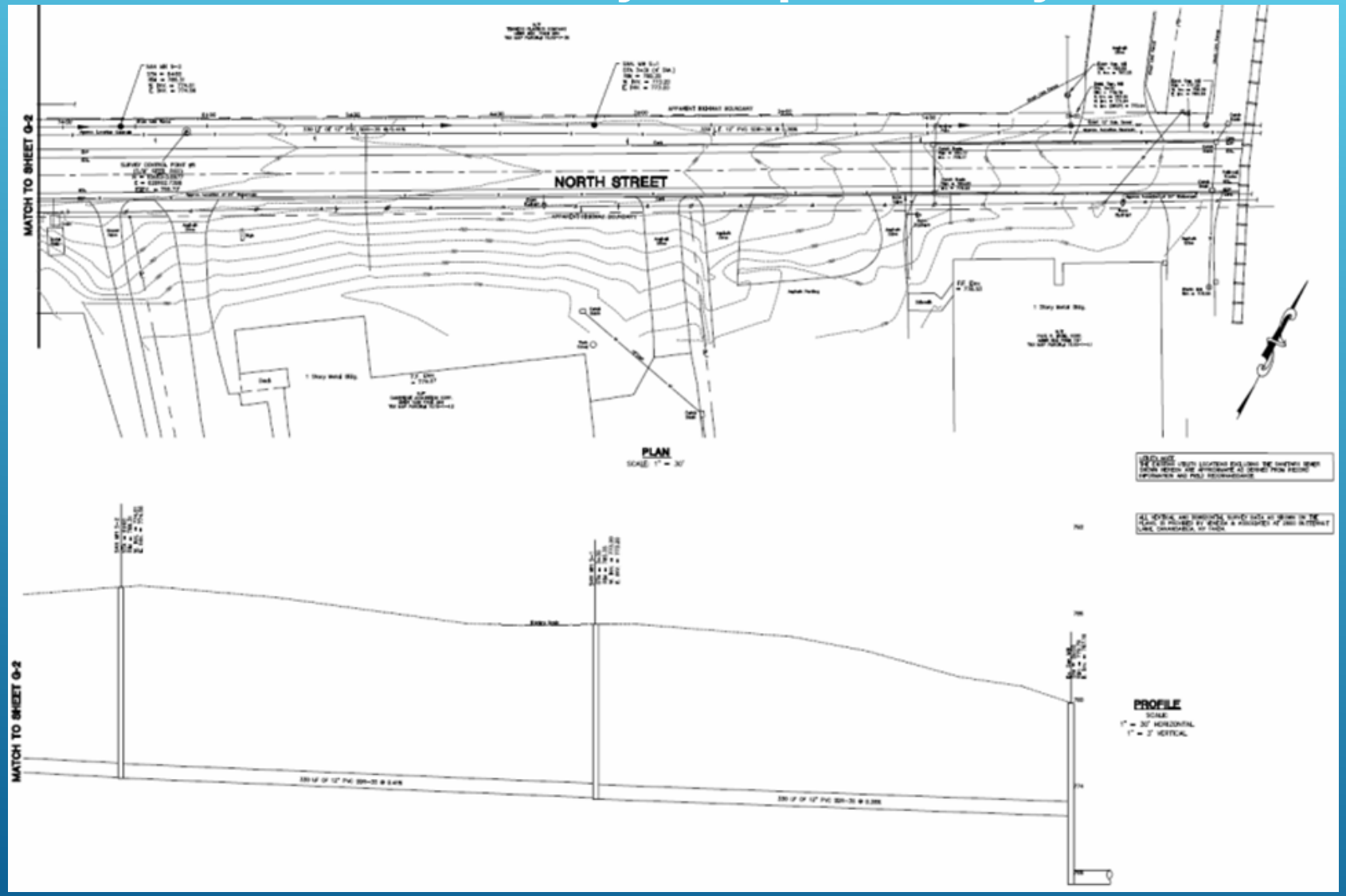
   In a Conventional Gravity/Pump Station sewer system the wastewater flows by gravity to a common collection point, a pump station. The pumping station then lifts the sewage to an existing gravity collection system or transports it directly to a treatment facility or public sewer.

2. **Low Pressure/Grinder Sewer Systems**

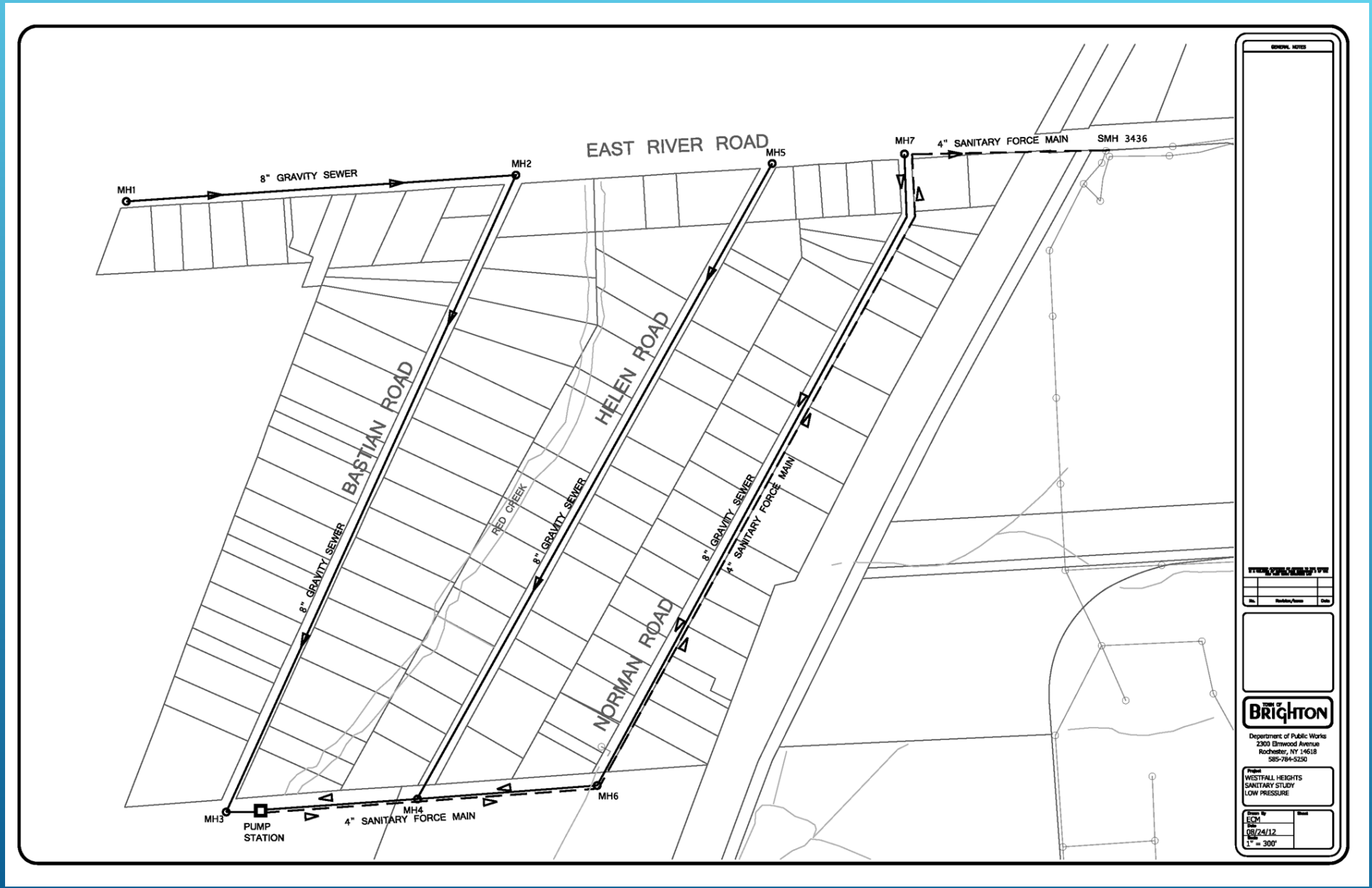
   Low-pressure sewer systems utilize small grinder pumps at each wastewater source and small-diameter low-pressure sewers for transmission either to a central lift station, existing collection system or directly to a wastewater treatment plant. Wastewater from the residence is discharged to a grinder pumping station. An individual pump station will be provided for each resident and will be located within the road Right of Way.

SANITARY SEWER COLLECTION SYSTEM ALTERNATIVES

Conventional Gravity/Pump Station System



CONVENTIONAL GRAVITY/PUMP STATION SYSTEM



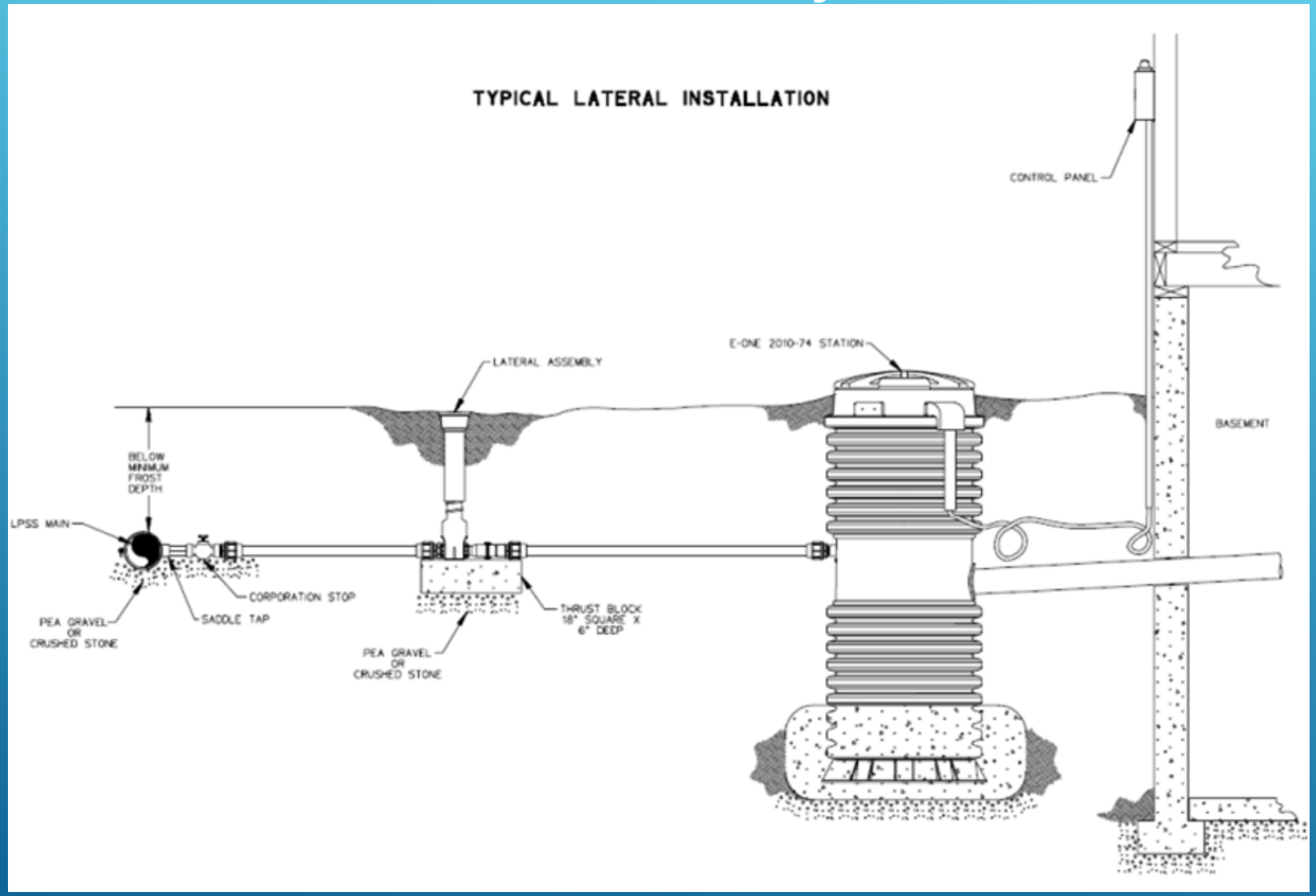
Conventional Gravity/Pump Station

Advantages	Disadvantages
Emergency generators can be installed at pump stations to operate during outages	Pump Stations must be maintained and provided with power
Materials and construction methods are advanced and proven	Central pump stations are expensive to construct, operate, and maintain
The gravity portion of the system requires little maintenance	Construction requires large equipment with potential traffic disruption and greater impact the residents and other utilities
	The cost of construction is generally higher than the cost to install alternative systems

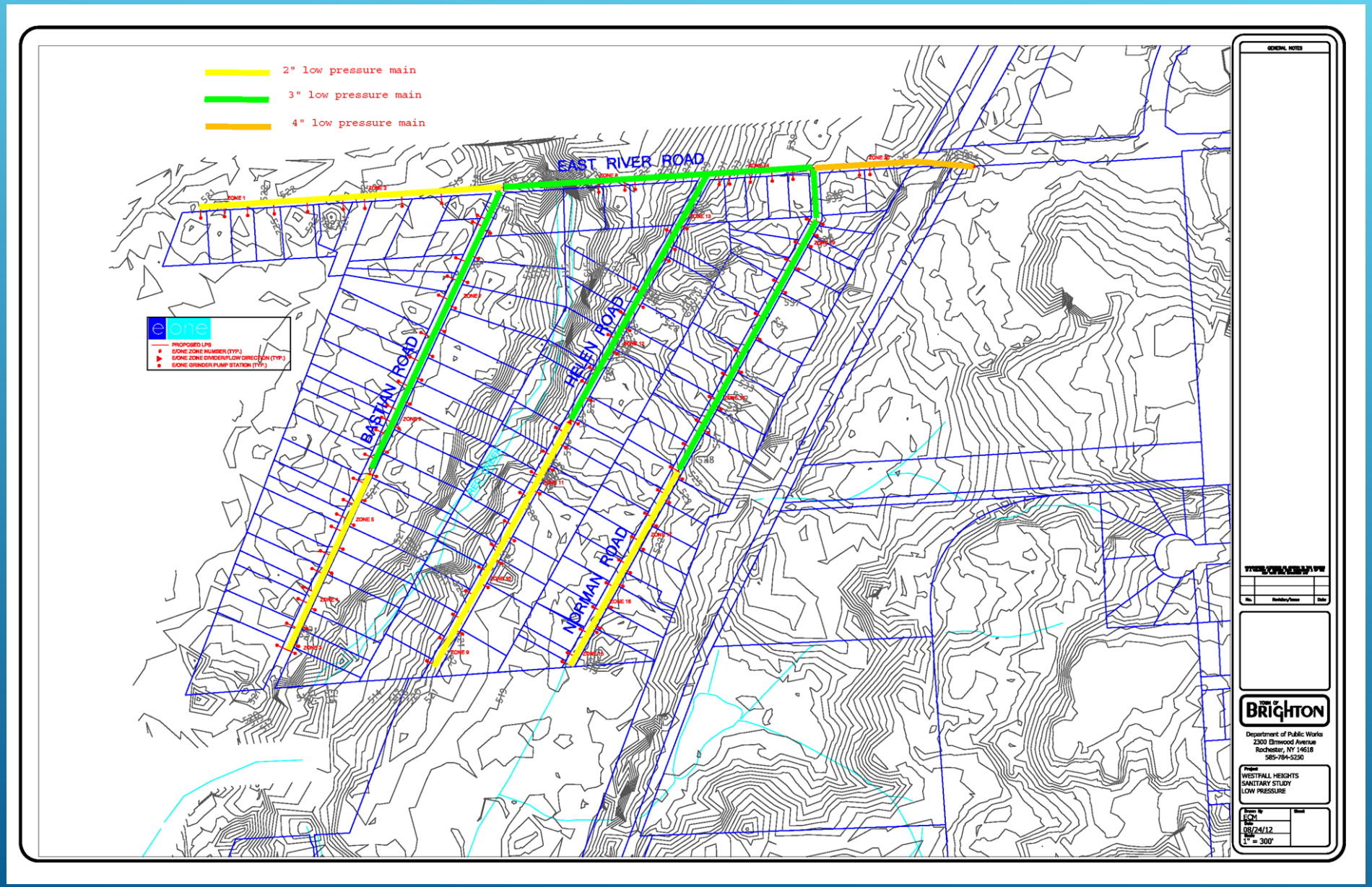
SANITARY SEWER COLLECTION SYSTEM ALTERNATIVES

- Single Pump per Parcel
- Pump Maintained and Installed by Municipality
- Power paid by property owner

Low Pressure System



LOW PRESSURE/GRINDER SEWER SYSTEMS



Low Pressure/Grinder Sewer Systems

Advantages	Disadvantages
The diameters of the low-pressure mains are normally smaller than other systems	Pump Stations must be maintained and provided with power
Low-pressure mains are typically installed at shallow depths and do not require installation at grade or with special profiles	Although low pressure systems are proven public acceptance varies
Construction is easier at shallow depths and has far less impact on the residents, existing roadways and utility lines	Long resident time within the forcemain may produce odors at the discharge point.
Trenchless construction methods can be used to provide significant cost savings and minimal disruption of traffic and other utilities	The system results in a large number of pump stations that will require maintenance.
The cost of construction is generally lower than the cost to install alternative systems	

SANITARY SEWER COLLECTION SYSTEM ALTERNATIVES

1. Conventional Gravity/Pump Station System

Capital Cost = $2,660,000

Operation and Maintenance Cost

- Municipality O & M = $72.90, *(Per District 87A)*
- *MCPW O &M Charge ($1.4525 per 1000 gallons used, based on 60,000 gal/yr. water use) = $87.00*
- *TOTAL O & M Charge = $159.90*

2. Low Pressure/Grinder Sewer Systems

Capital Cost = $2,143,000

Operation and Maintenance Cost

- Municipality O & M = $50.00, *(10% replacement cost per year)*
- MCPW O &M Charge ($1.4525 per 1000 gallons used, based on 60,000 gal/yr. water use) = $87.00
- *Annual Cost of Electricity = $12.00*
- *TOTAL O & M Charge = $149.00*

FINANCIAL ANALYSIS FOR LOW PRESSURE SYSTEM

Financial Evaluation	Bond Term 20 years at 4.8% APR
Total Construction Cost	$ 2,143,000.00
Annual Debt Service District Extension =	$ 169,061.54
Number of Units	145.21
Annual Debt Service per Unit =	$ 1,164.27
MCPW Annual Capital Charge	$ 27.39
Operation and Maintenance Costs	
BSD O & M costs =	$ 50.00
MCPW O & M Charge ($1.4525 per 1000 gallons based on 60,000 gal/yr. water use)	$ 87.15
Annual Cost of Electricity	$ 12.00
Total Annual Cost per unit=	**$ 1,340.81**

ANTICIPATED ADDITIONAL ONE-TIME COSTS

In addition to the annual fees referenced here, the property owner will incur the following one-time costs upon connection to the public sewer:

1. The abandonment of existing septic tank. This cost is estimated to be $500.

2. The installation of service laterals from the low pressure pump to the house. This installation is estimated to cost between $2,500 and $3,500 depending on the length of sanitary sewer lateral installed.

3. The cost to reconfigure homes internal plumbing to accommodate the sewer connection.

NEW YORK STATE COMPTROLLER'S THRESHOLD

- Each year the New York State Comptroller's office publishes average estimated annual cost thresholds for "typical properties" within sewer and water improvement districts.

- For Town sewer districts, the NYS Comptroller's average estimated sewer cost threshold for 2014 is **$721** per year.

FUNDING PROGRAMS

Agency	Program Name
NYS Environmental Facilities Corporation (EFC)	Clean Water State Revolving Fund
Office for Small Cities	Small Cities Community Block Grant
U.S. Department of Agriculture Rural Dev.	Rural Utilities Service Water and Wastewater Disposal Loan and Grant Program

NEXT STEPS

- Determine Interest of Residents
- Convey Interest to Local Officials
- Demonstrate Interest with Informal Petitions and Letters
- Identify Grant and Funding Sources and prepare Grant Applications
- Secure Funding
- Pursue District Formation, (Formal Petition)
- Design Project
- Construct Project

QUESTIONS AND COMMENTS

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