STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

RICK SNYDER
GOVERNOR

KEITH CREAGH
DIRECTOR

February 4, 2016

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT
Village of Nashville, Barry County
Wastewater Collection and Treatment System Improvements
State Revolving Fund Project No. 5603-01

The purpose of this notice is to seek public input and comment on a preliminary decision by the Michigan Department of Environmental Quality (DEQ) that an Environmental Impact Statement (EIS) is not required to implement recommendations discussed in the attached Environmental Assessment of a wastewater project plan submitted by the applicant mentioned above.

HOW WERE ENVIRONMENTAL ISSUES CONSIDERED?

Part 53, Clean Water Assistance, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, being Sections 324.5301 to 324.5316 of the Michigan Compiled Laws Annotated, requires the DEQ to evaluate all environmental implications of a proposed wastewater project. The DEQ has done this by incorporating a detailed analysis of the environmental effects of the proposed alternatives in its review and approval process. A project plan containing information on environmental impacts was prepared by the municipality and reviewed by the State. The DEQ has prepared the attached Environmental Assessment and found that the proposed project does not require the preparation of an EIS.

WHY IS AN EIS NOT REQUIRED?

Our environmental review concluded that no significant environmental impacts would result from the proposed action. Any adverse impacts have either been eliminated by changes in the project plan or will be reduced by the implementation of the mitigative measures discussed in the attached Environmental Assessment.

HOW DO I GET MORE INFORMATION?

A map depicting the location of the proposed project is attached. This information is also available on our website at www.michigan.gov/cleanwaterrevolvingfund under "Related Links." The Environmental Assessment presents additional information on the project, alternatives that were considered, impacts of the proposed action, and the basis for our decision. Further information can be obtained by calling or writing one of the contact people listed below.

HOW DO I SUBMIT COMMENTS?

Any comments supporting or disagreeing with this preliminary decision should be submitted to me at DEQ, Office of Drinking Water and Municipal Assistance, Revolving Loan Section, Constitution Hall, P.O. Box 30241, Lansing, Michigan 48909-7741. We will not take any action on this project plan for 30 calendar days from the date of this notice in order to receive and consider any comments.

WHAT HAPPENS NEXT?

In the absence of substantive comments during this period, our preliminary decision will become final. The applicant will then be eligible to receive loan assistance from this Agency to construct the proposed project.

Any information you feel should be considered by the DEQ should be brought to our attention. If you have any questions, please contact Ms. Jaclyn Merchant, the project manager, at 517-284-5412, or you may contact me. Your interest in this process and the environment is appreciated.

Sincerely,

Sonya T. Butler

Sonya T. Butler, Chief
Revolving Loan Section
Office of Drinking Water and Municipal Assistance
517-284-5433

Attachments

STATE REVOLVING FUND (SRF)
ENVIRONMENTAL ASSESSMENT
VILLAGE OF NASHVILLE – BARRY COUNTY
WASTEWATER COLLECTION AND TREATMENT SYSTEM IMPROVEMENTS
February 2016

PROJECT IDENTIFICATION

Applicant:	Village of Nashville 203 North Main Street Nashville Michigan 49073
Authorized Representative:	Mr. Mike Kenyon, Village President
SRF Project Number:	5603-01

PROJECT OVERVIEW

The village of Nashville owns and operates a wastewater collection and treatment system in Barry County, Michigan, providing sanitary service to the village with a population of approximately 1,628 people. The village intends to make several collection and treatment system improvements including sanitary sewer rehabilitation, the installation of a new aeration system, a new diffused air system and blowers.

The estimated project cost for the selected alternative is $2,343,000. The village is seeking a low-interest loan (2.5 percent for the 2016 fiscal year) through the state of Michigan's SRF program, administered by the Department of Environmental Quality (DEQ). Excluding cash on hand and grant funding, and based on financing for 20 years at an interest rate of 2.5 percent, the current user charge rate will increase by approximately $5 per quarter, or $60 per year.

PROJECT BACKGROUND

The village of Nashville's collection system flows are directed to the wastewater treatment plant (WWTP) located on Greggs Crossing Road. Constructed in 1981, the WWTP includes an aerated lagoon followed by two facultative storage lagoons and was designed for an annual average flow of 0.20 million gallons per day (MGD). The plant currently serves approximately 1,628 people. Average daily flow is 0.14 MGD. Wastewater is pumped into an aerated lagoon where floating aerators provide mixing and aeration. The effluent is then routed to storage lagoons for additional treatment, settling, and storage. During the discharge period, May 1 through October 31, effluent is pumped from the storage ponds and flood irrigated in batches to any of the 17 irrigation fields. Vegetation growing on the irrigation fields takes up nutrients that remain in the effluent. An underdrain system below the irrigation fields collects treated effluent and discharges it through two outfall locations into a wetland that connects to the Thornapple River. Discharge is regulated by National Pollutant Discharge Elimination System Permit Number MI0020079.

The village's collection system was originally constructed in 1912, with new sewer lines installed in 1981 with the construction of the WWTP. A majority of the sewers are vitrified clay pipe with some concrete and polyvinyl chloride pipe. Four pump stations are used in the collection system; two installed in 1998, and two in 2001.

The study area for the project includes only the village of Nashville itself (see Figure 1). Existing land use of the study area is predominately residential and park space with some commercial and industrial development. The Thornapple River runs through the village and treated wastewater is discharged to a wetland that is connected to the river. The Thornapple River eventually empties into the Grand River.

PROJECT NEED

In general, the village WWTP is in poor to fair condition, and there are several issues in the collection system that must be addressed to continue to provide wastewater treatment service and to meet water quality objectives.

Much of the infrastructure and equipment at the WWTP is approaching or has already exceeded their useful lives, needing repair or replacement. Transfer piping at the WWTP is severely corroded and requires replacement. Flow control valves are inoperable, as are the floating aerators. Aerating lagoons with floating aerators is also not the most efficient way to provide mixing and oxygen necessary for treatment. Many of the irrigation system valves are inoperable, and the irrigation pumps are antiquated and beyond their useful lives.

Several segments of sewer, including on Middle Street, Queen Street and State Street, are structurally deficient and require replacement. The pumps in the Main Pump Station are beyond their useful lives and require replacement for the pump station to remain operational. Repairs to the Main Pump Station Building are needed as well, such as a new roof and air handling unit. Other improvements are needed at all of the pump stations and include: valve replacement, installation of a drain line with check valve, and replacement of electrical controls.

ALTERNATIVES CONSIDERED

Several alternatives were considered to determine the best option to address the improvement needs at the village of Nashville's WWTP and collection system. The no-action alternative was rejected because it would result in continued system deterioration and operational inefficiency. The regional alternative, pumping wastewater to the city of Hastings for treatment, was also rejected because it is not feasible due to the extreme cost associated with constructing a sewer line to the city and pumping wastewater. Two principal alternatives were considered: Alternative A, optimizing existing facilities; and Alternative B, conversion of the aerated lagoon to a mechanical treatment plant.

Alternative A includes collection system rehabilitation, improvements to the pump stations, and improvements to the WWTP. Specifically, a cured-in-place pipe will be installed within the sewers that have been found to be severely structurally deficient. Pump stations will see the replacement of electrical controls and corroded valves, the installation of hatches, valve chamber drains, and standby generators. Improvements at the WWTP will include a new aerations system, new electrical control systems, and replacement of grating, valves, and piping. The irrigation system will also be improved: existing irrigation pumps will be repaired or replaced, the irrigation distribution valves will be replaced, and the roof and heating system at the irrigation pump building will also be replaced. The estimated present worth cost of Alternative A is $4,200,000.

Alternative B consists of changing the treatment process from aerated lagoons to a moving bed biological reactor. This means that the lagoon would be converted to a concrete tank with plastic media for bacteria to attach to and grow. Effluent would still be routed to the existing storage lagoons and discharged seasonally. The collection system improvements and irrigation pumping and distribution improvements described in Alternative A would also need to be addressed under Alternative B. The estimated present worth cost of Alternative B is $5,500,000.

The following table compares the advantages and disadvantages associated with each alternative:

	Alternative A	Alternative B
Advantages	• Improved system integrity • Lower cost • Less disruptive construction	• Improved system integrity
Disadvantages	• Minor construction disturbance	• Major construction disturbance due to removal of lagoon and installation of a concrete tank

Alternative A has the least disadvantages, maintains the village's ability to treat wastewater, improves system integrity, and is lower in cost than Alternative B. For this reason, Alternative A was selected. See Figure 2 for a map of the proposed project locations. Construction will begin in the summer of 2016 and will likely conclude in the fall of 2016. The estimated costs associated with Alternative A equal $2,343,000.

USER COSTS

The estimated project cost for the selected alternative is $2,343,000. The village of Nashville plans on contributing $300,000 in cash on hand toward the project. The village also received an S2 Grant in September of 2013 for $64,095 in planning costs associated with the project, 10 percent ($6,409) of which the village is required to pay to meet the grant local match requirements. Additionally, the village received a Stormwater, Asset Management and Wastewater (SAW) Grant in May of 2014 for $151,900 in design and user charge system development costs related to the project. There is no local match required for the design and user charge system development portions of the SAW Grant.

Excluding the cash on hand and grant funding, the village plans on funding $1,827,000 using an SRF loan. Based on financing for 20 years at an interest rate of 2.5 percent, an average user can expect an increase of about $5 per month. The estimated annual user cost increase for the project is approximately $60. The village of Nashville does qualify as a disadvantaged community and will receive $100,000 in principal forgiveness. Disadvantaged communities may also select a 30-year loan with an interest rate of 2.75 percent if they so choose.

ENVIRONMENTAL IMPACTS

Construction impacts associated with the proposed project are expected to be short-term. These impacts include construction vehicle traffic, noise, dust, emissions from construction equipment, increased erosion potential, and a slight disruption of normal traffic flows. All contractors will be required to comply with a program for control of soil erosion and sedimentation, which will include the use of controls such as straw bales, sedimentation basins, and silt fences. Construction equipment will be maintained in good condition to decrease noise and emissions.

The Michigan Natural Features Inventory and the U.S. Fish and Wildlife Service webpages were consulted to determine that there will be minimal to no impact to wetlands, floodplains, and stream crossings. Construction will be limited to the WWTP facility, pump station properties, and existing utility rights-of-way and easements. Neither the Thornapple River nor any listed species of concern will be impacted.

Benefits from the project include improved system reliability in the collection system and at the WWTP and, consequently, improved or maintained water quality. The project will also create construction and equipment manufacturing jobs.

The State Historic Preservation Office (SHPO) was contacted, and it was determined that there would be no adverse effect on historic properties within the project area as a result of this project, however, this determination had one condition: If landscape changes or tree removals are to occur as part of the project, information as to the size and location of the trees must be submitted to SHPO for review, comment, and meaningful consultation. No tree removals or significant landscape changes are anticipated. The Tribal Historic Preservation Officers that may have historical, religious, or culturally significant resources in the area were contacted and none expressed any concerns. It has, therefore, been determined that there would be no impact on religious/cultural resources from the construction of this project.

PUBLIC PARTICIPATION

A public hearing to discuss the proposed project was advertised, held, and recorded according to SRF program guidelines. The hearing was advertised on May 9, 2015, in the *Lansing State Journal* and was held on June 11, 2015, at 7 p.m. at the Nashville Village Office, where a copy of the project plan was available for public scrutiny 30 days prior to the hearing. No comments were received from the public. A resolution adopting the final project plan was approved by the village of Nashville on June 11, 2015.

REASONS FOR CONCLUDING NO SIGNIFICANT IMPACT

The DEQ has determined that there will be no significant impact as a result of the proposed project. The primary purpose of the project is to improve collection system sewers and pump stations as well as make significant improvements at the WWTP. This work is largely limited to the WWTP, pump station properties, and rights-of-way. Public health and safety benefits from the project are expected to greatly outweigh the short-term construction impacts.

Questions regarding this Environmental Assessment should be directed to:

Ms. Sonya T. Butler, Chief
Revolving Loan Section
Office of Drinking Water and Municipal Assistance
Michigan Department of Environmental Quality
P.O. Box 30241
Lansing, Michigan 48909-7741
Telephone: 517-284-5433
E-Mail: ButlerS2@michigan.gov

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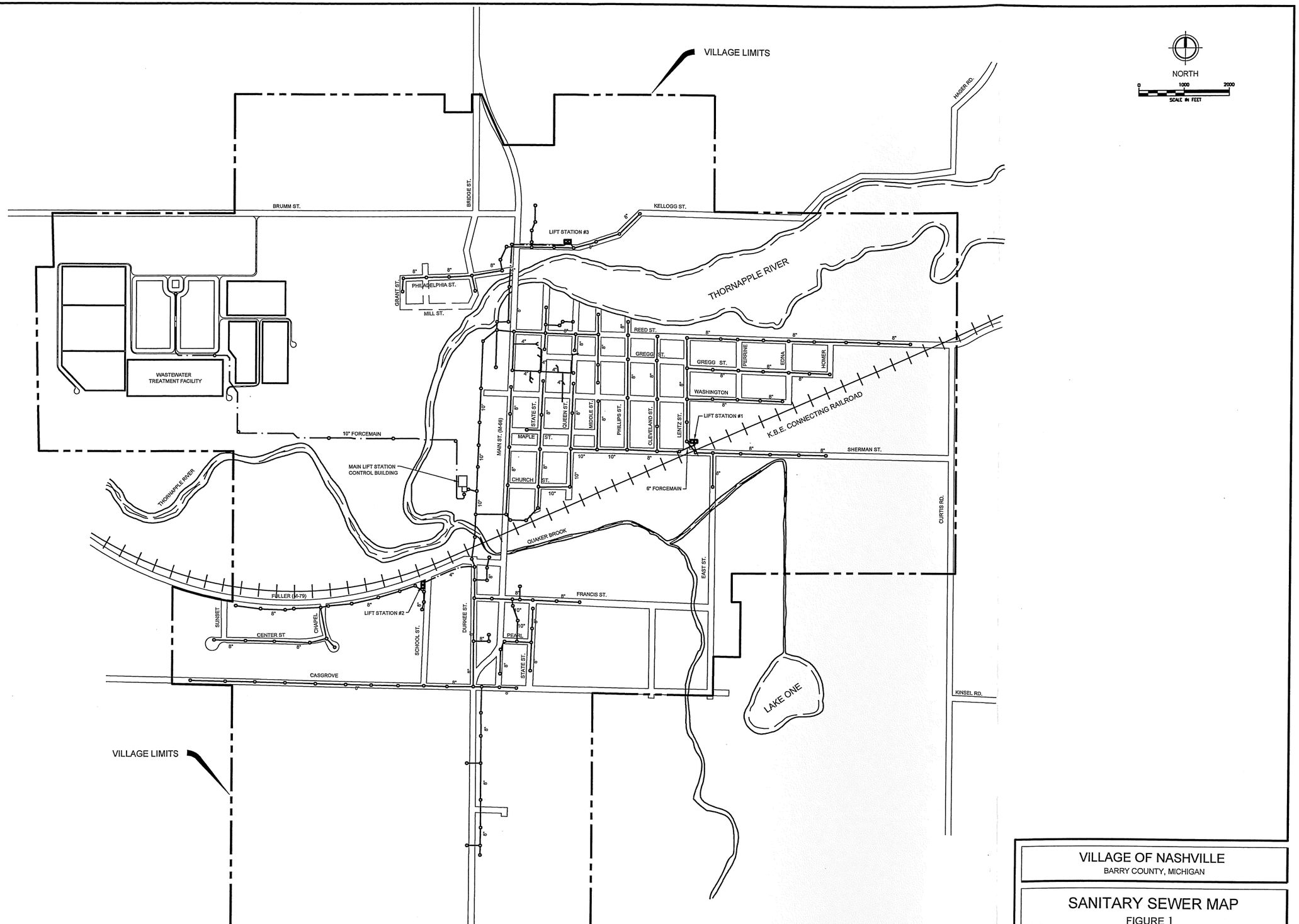

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VILLAGE OF NASHVILLE
BARRY COUNTY, MICHIGAN

SANITARY SEWER MAP
FIGURE 1

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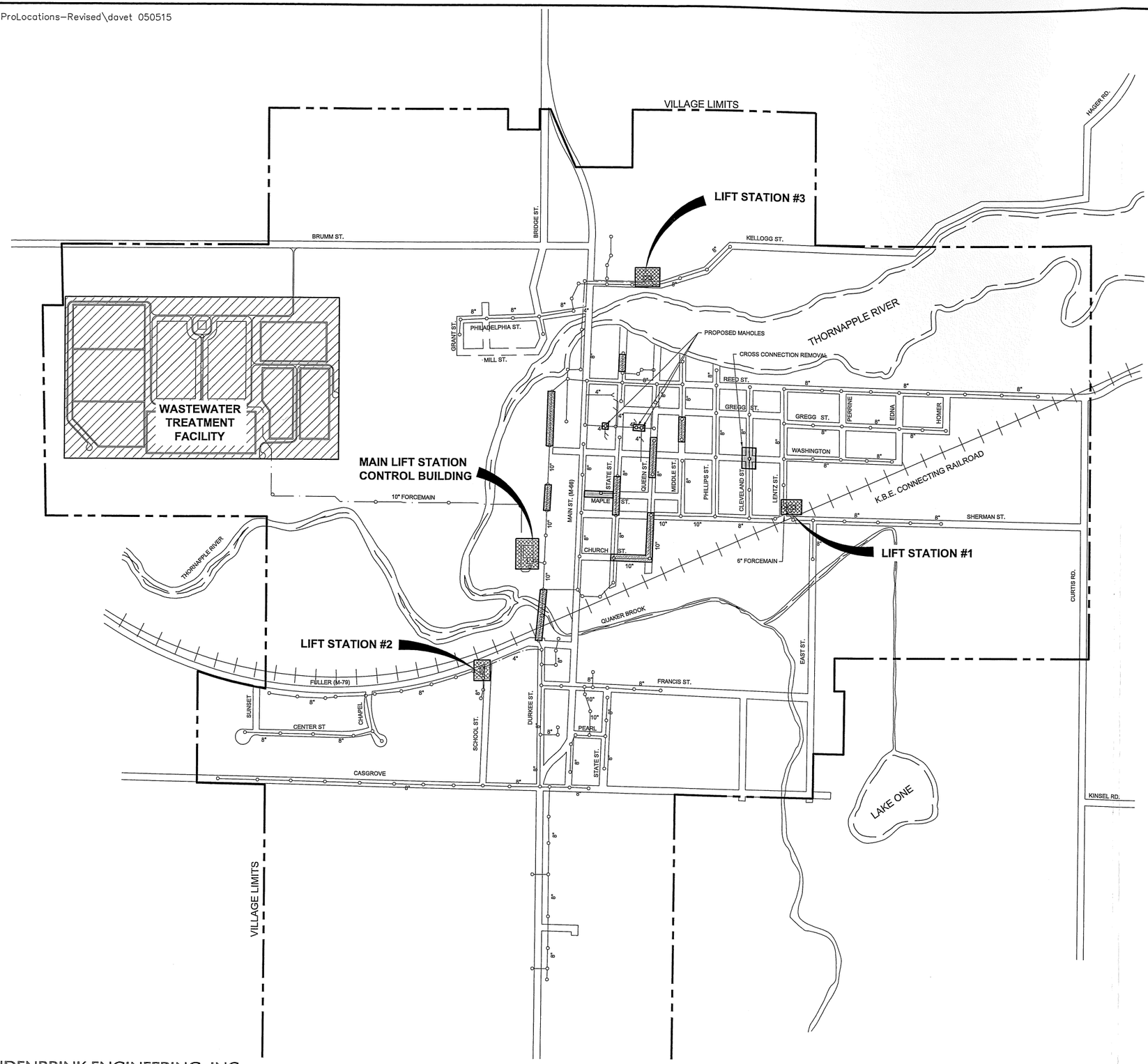

LEGEND

- WWTF IMPROVEMENTS
- SANITARY SEWER WORK LOCATIONS
- SANITARY SEWER REHABILITATION (CIPP)
- LIFT STATION UPGRADES

VILLAGE OF NASHVILLE
BARRY COUNTY, MICHIGAN

PROJECT LOCATION MAP
FIGURE 2

2015 813770

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