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GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

February 9, 2016

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT
City of Garden City, Wayne County
Sanitary Sewer Rehabilitation
State Revolving Fund Project No. 5628-01

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. Karol Patton, the project manager, at 517-284-5415, or you may contact me. Your interest in this process and the environment is appreciated.

Sincerely,



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

Attachments

DEPARTMENT OF ENVIRONMENTAL QUALITY

City of Garden City, Wayne County
State Revolving Fund (SRF)
Environmental Assessment
February 2016

I. PROJECT IDENTIFICATION

Applicant: City of Garden City
Address: 6000 Middlebelt Road
Garden City, Michigan 48135
Authorized Representative: Mr. Robert Muery, City Manager
SRF Project Number: 5628-01

II. PROJECT SUMMARY

The city of Garden City has applied for funding through the SRF program to install cured-in-place pipe (CIPP) linings and sectional CIPP linings to correct structural defects and removal of inflow/infiltration (I/I) sources to address sewer system capacity problems. The total project cost is estimated to be \$4,998,000. The average residential user in the Garden City sewer system is expected to see an increase of \$2.30 in their monthly sewer bill. Construction is expected to begin in the summer of 2016 and be completed in the summer of 2017.

III. PROJECT BACKGROUND

Garden City is located south of the city of Detroit and is bordered by the cities of Westland, Inkster, and Dearborn Heights (Figure 1). The city is completely built out. The existing land use is mainly residential, followed by commercial and government/institutional.

According to the Southeast Michigan Council of Governments, the population of Garden City is expected to decrease during the 20-year planning period from the existing population of 26,700 to an estimated 25,010 in 2040.

The city owns and operates its sanitary sewer system. The original sewer system was installed between the late 1930s and the early 1960s. The system was a combined system, transporting both sanitary and stormwater flows, but was separated during the late 1960s through the mid-1990s. Sewage is discharged into the Wayne County North Huron Valley/Rouge Valley (NHV/RV) Interceptor for treatment at the Detroit Water and Sewerage Department plant in southwest Detroit. The city has a purchase capacity of 24.4 cubic feet per second, which is based on a 10-year, 1-hour storm. The city is unable to meet the contract capacity limitation during wet weather events.

The city received an SRF/Strategic Water Quality Initiatives Fund (S2) grant to study the sewer system in this area to determine the cause of the capacity problems and identify potential solutions. The sewers were cleaned, televised, and evaluated for structural

integrity using the National Association of Sanitary Sewer Companies Pipeline Assessment and Certification Program (PACP) rating system. The study identified several areas of sewer structural defects, including severe interior surface deterioration, moderate to severe longitudinal and circumferential cracking of pipe, holes in the pipe, and broken or deformed pipe. Eight locations of collapsed or missing sewers were identified. Due to their critical nature, they have been addressed by the city.

Sources of I/I were identified. Inflow sources can be connections between the sanitary and storm sewers, or any connections that allow stormwater to enter the sanitary system. Infiltration sources are often footing drains, cracks or other defects that allow groundwater to enter the sanitary system. Several pipe joint defects were identified that allow groundwater to enter the sanitary system. These sources of infiltration were quantified and evaluated in the alternative analysis. Identified inflow sources will not be addressed as part of this project.

IV. PROPOSED PROJECT

The no-action alternative is not a viable alternative since the defective sewer segments would remain, allowing excessive flow into the system. Garden City would still exceed its contract capacity in the NHV/RV Interceptor. The no-action alternative was eliminated from further consideration.

Garden City is currently a member of a regional wastewater treatment system.

A. Alternatives Considered

1. Alternative 1 – Rehabilitation of Existing Sewers

This alternative involves the rehabilitation of existing sewers with identified structural deficiencies using trenchless technologies and cost-effective removal of identified infiltration sources.

For structural integrity deficiencies, the proposed solutions are consistent with the PACP rating system and SRF requirements. The PACP rating system provides standardized codes to document the condition of the sewer. A Grade 4 pipe is assigned if “a collapse is likely in the foreseeable future,” and a Grade 5 pipe is assigned if “either a collapsed pipe, or where collapse is imminent.” Rehabilitation of the existing sewers will address defects with a Grade 4 or 5 PACP rating.

Cost-effective I/I removal is determined by a cost-effectiveness analysis that compares the cost to remove the specific sources with the cost to transport and treat the flow. This analysis was conducted on the identified I/I sources to determine which ones to address.

Sections with defects rated Grade 4 or 5 will be repaired by either full-length or sectional-length CIPP lining, depending on the number of defects present. The estimated quantities are:

Full-length CIPP lining:

- 650 lineal feet (lf) of 8-inch-diameter sewer
- 20,350 lf of 10-inch-diameter sewer
- 12,150 lf of 12-inch diameter sewer
- 7,475 lf of 15-inch-diameter sewer
- 7,350 lf of 18-inch-diameter sewer
- 1,750 lf of 21-inch-diameter sewer
- 600 lf of 24-inch-diameter sewer
- 330 lf of 42-inch-diameter sewer
- 1,250 lateral reinstatements

Sectional-length CIPP lining:

- Seven 10-foot-long sectional liners for 8-inch-diameter sewer
- 157 sectional liners for 10-inch-diameter sewer, 10 to 16 feet long
- 119 sectional liners for 12-inch-diameter sewer, 10 to 130 feet long
- 79 sectional liners for 15-inch-diameter sewer, 10 to 75 feet long
- 42 sectional liners for 18-inch-diameter sewer, 10 to 150 feet long
- Eight sectional liners for 21-inch-diameter sewer, 10 to 140 feet long
- Seven sectional liners for 24-inch-diameter sewer, 10 to 40 feet long
- Two 10-foot-long sectional liners for 27-inch-diameter sewer
- One 10 to 15-foot sectional liner for 30-inch-diameter sewer
- One 10-foot sectional liner for 42-inch-diameter sewer
- 400 lateral reinstatements

2. Alternative 2 – Remove and Replace Sewers

This alternative involves the complete removal and replacement of defective sewers. The same locations above would be targeted for sewer replacement. The alternative would remove or abandon 61,300 lf of sewer.

A monetary evaluation was conducted, which included a present worth analysis. A present worth analysis compares the monetary costs of two or more alternatives to address the same need. Alternative 1 is the cost-effective alternative to address the defective sewer segments and reduce the excessive flow to the NHV/RV Interceptor.

B. Selected Alternative

The selected alternative includes the rehabilitation of sewer segments that contain structural defects identified as Grade 4 or 5 in the PACP rating system, or have significant infiltration through pipe joints. In order to minimize ground disturbance, CIPP will be used for repairs. The CIPP is a resin-saturated felt tube of polyester that is inverted or pulled into the existing pipe. It is cured with hot water or steam to form a tight-fitting, jointless, corrosion resistant pipe. After the pipe is installed, service laterals are restored internally with a robotically controlled cutting device. Full-length CIPP will be used in sewer segments that have three or more structural defects. Sectional CIPP will be used in locations with isolated defects. The sewer rehabilitation locations are shown in Figures 2 and 3.

C. Project Costs

The total project cost for the Garden City sewer rehabilitation project is estimated to be \$4,998,000, including construction, contingencies, engineering, administrative, and legal services. It is anticipated that the project will be funded through the SRF program, administered by the Michigan Department of Environmental Quality and the Michigan Finance Authority. The repayment period is 20 years at the current interest rate of 2.5 percent.

Garden City has received an S2 grant of \$1,000,000 for the sanitary sewer investigation and project planning activities. The grant required a local match of 10 percent, which is \$121,216. The typical Garden City resident is expected to see an increase of \$2.30 in their monthly sewer bill due to the proposed project.

V. ENVIRONMENTAL IMPACTS OF THE PROPOSED PROJECT

A. Primary Impacts

The proposed project will reduce the amount of excessive flow in the sewer system by addressing the worst structural defects and removing the cost-effective sources of I/I. These efforts will help Garden City reduce the amount of flow to the NHV/RV Interceptor, and get closer to its contract capacity limit.

Impacts of construction associated with this project are considered short-term disruptions that do not extend beyond the period of construction. Short-term adverse impacts associated with construction include noise, dust, and exhaust fumes. Due to the use of trenchless and directional drilling technologies, removal of groundcover and soil erosion potential is expected to be minimal.

Construction is expected to cause brief inconveniences to those who live and travel through the project area. Road closures, traffic detours, and temporary loss of driveway access for residents and business owners are typical impacts. There may be brief interruptions to sewer service during lining operations and as connections are being reestablished. Loss of service should not be longer than eight hours. Residents will be notified 48 – 72 hours in advance of the interruption of service.

Construction-related impacts will be addressed by adherence to Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, to prevent damage to the surrounding areas from soil erosion, dust, and sedimentation. Traffic control procedures will be used to minimize traffic-related impacts. Access to driveways and parking lots will be restored as soon as possible.

Both the United States Fish and Wildlife Service and the Michigan Natural Features Inventory have reviewed the proposed project. Both agencies have determined that no endangered or threatened species habitat will be affected by the project. All anticipated impacts to fauna and flora resulting from construction are expected to be temporary.

There are no wetlands, surface waters, or floodplains in the project area.

The State Historic Preservation Office has reviewed the proposed project for impacts on historical and archeological resources. It was been determined the project, as proposed, will not have an impact on any historical/archeological resources.

Fourteen federally recognized Native American tribes have been notified of the proposed project. None have expressed concern that the project, as proposed, would have an impact on any known tribal historic, religious, or cultural resource.

B. Secondary Impacts

No adverse secondary impacts are anticipated for this project.

VI. PUBLIC PARTICIPATION

On February 15, 2015, the SRF public hearing notice was published in the *Garden City Observer* and the draft project was made available for review. The formal public hearing was held March 23, 2015, during the regular city council meeting in the city council chambers. Comments were addressed regarding the project construction and project need. The Garden City Council passed a resolution on March 23, 2015, unanimously approving the project plan and agreeing to implement the recommended alternatives.

VII. REASONS FOR CONCLUDING NO SIGNIFICANT IMPACT

No long-term significant impacts are associated with this project. Long-term positive impacts include reduction of sanitary sewer flow to the NHV/RV Interceptor, which will help Garden City meet its capacity limits and extend the useful life of the sewer system. The benefits of the proposed project are anticipated to outweigh the short-term adverse construction-related 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



Figure 1

- GARDEN CITY - WAYNE COUNTY, MICHIGAN

SECTIONAL CIPP
LOCATIONS

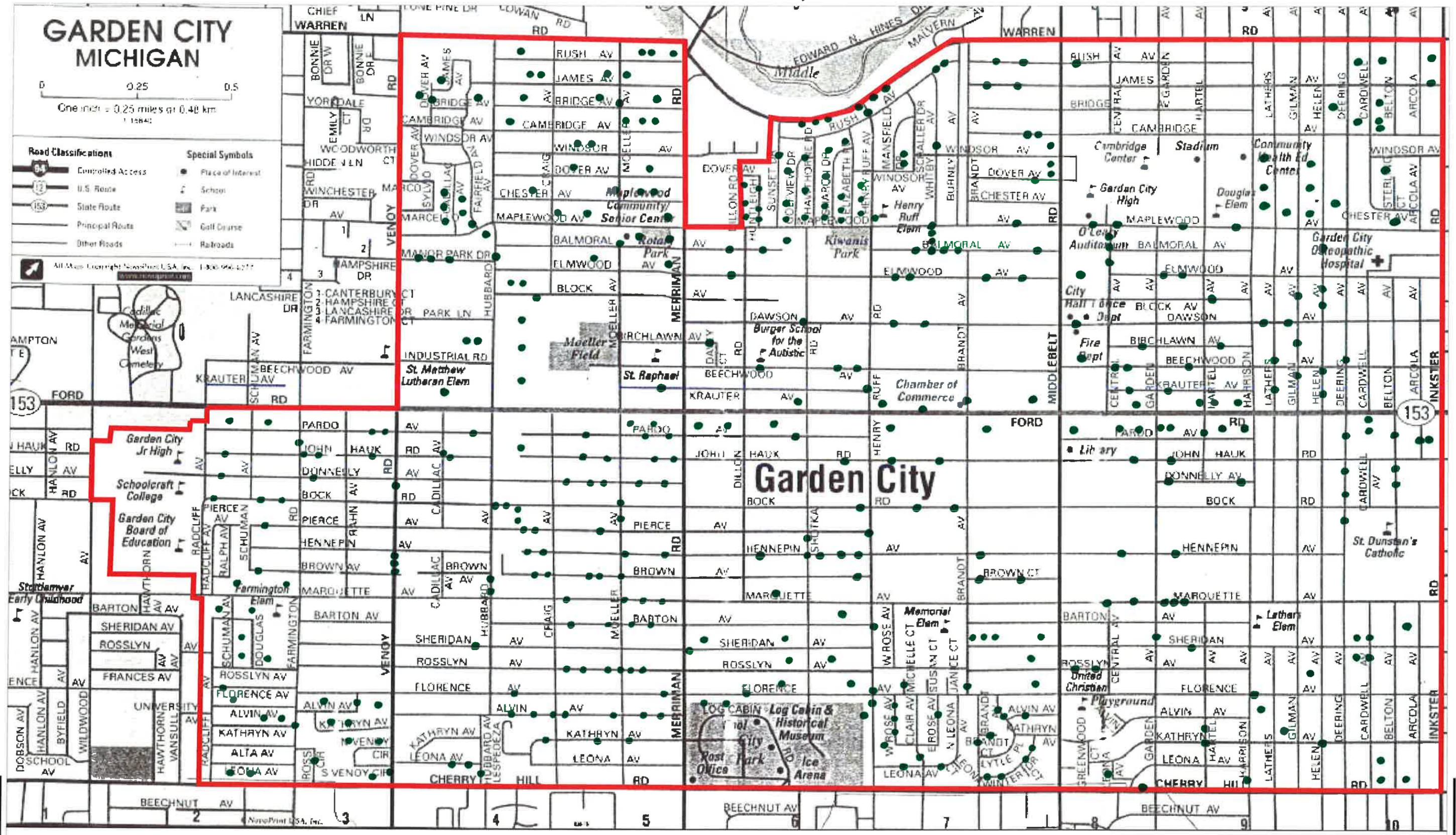


Figure 3