



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING



LIESL EICHLER CLARK
DIRECTOR

June 1, 2022

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: **FINDING OF NO SIGNIFICANT IMPACT**
City of Muskegon, Muskegon County
Wastewater Collection System Improvements
Clean Water Revolving Fund Project No. 5767-01

The purpose of this notice is to seek public input and comment on a preliminary decision by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) 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 EGLE to evaluate all environmental implications of a proposed wastewater project. EGLE 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. EGLE 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 [Michigan.gov/CWSRF](https://www.michigan.gov/CWSRF) 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 EGLE, Constitution Hall, P.O. Box 30457, Lansing, Michigan 48909-7957. 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 EGLE should be brought to our attention. If you have any questions, please contact Mr. David J. Worthington, the senior project manager, at 517-554-1835, by email at Worthingtond@michigan.gov, or you may contact me. Your interest in this process and the environment is appreciated.

Sincerely,



Eric Pocan, Unit Supervisor
Water Infrastructure Financing Section
Finance Division
517-284-5433

Attachment

**DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY (EGLE)
CLEAN WATER STATE REVOLVING FUND (CWSRF)
CITY OF MUSKEGON, MUSKEGON COUNTY
WASTEWATER COLLECTION SYSTEM UPGRADES
ENVIRONMENTAL ASSESSMENT
JUNE 2022**

I. PROJECT IDENTIFICATION

Applicant: City of Muskegon

Address: 1350 East Keating
Muskegon, Michigan 49442

Authorized Representative: Mr. Leo Evans, Public Works Director

CWSRF Project Number: 5767-01

The city of Muskegon (Muskegon) is proposing to sell bonds to finance the construction of upgrades to its wastewater collection system in various districts throughout the city. Muskegon is the largest city in Muskegon County, bordered to the west by Lake Michigan with Muskegon Lake and the Muskegon River forming its northern boundary.

A study area has been delineated that incorporates the entire city limits (See Figure 1).

In 2017, Muskegon completed an asset management plan (AMP) to evaluate the condition and needs of the collection system and prioritize repairs. Over half the system is nearing 100 years of age and is in critical need of upgrades.

As a result, Muskegon proposes the following projects for construction in 2022:

- Sanford Street (Sanford) Sanitary Sewer Replacement
- Glenside Neighborhood Phase II Sanitary Sewer Replacement

The total project cost is estimated to be \$6,687,000, of which approximately \$3,813,000 is eligible to be financed by the CWSRF. The remaining portion of the project will be for water main replacement proposed to be financed by the Drinking Water State Revolving Fund (DWSRF) and will be discussed in a separate document for DWSRF loan number 7566-01. Average monthly user costs for the city residents may rise from a current estimate of \$31.67 per month to approximately \$32.18 per month as a result of this project. This is a worst-case scenario, as actual rate changes may be smaller. Muskegon intends to finance the projects with a CWSRF loan at 1.875 percent over 20 years. As a disadvantaged community, Muskegon qualifies for principal forgiveness of 20 percent of the total project cost.

II. PROJECT BACKGROUND

A. Existing Facilities

Muskegon wastewater is pumped to the Muskegon County Wastewater Management System Metro Plant at an average flow of 5.24 million gallons per day.

The city's wastewater collection system consists of 889,950 linear feet (lft) of gravity sewer ranging in size from 6-inches to 42-inches in diameter, 21,500 lft of force main from 1.5-inches to 12-inches in diameter, and 3,778 manholes. Pipe material consists of vitrified clay installed between the 1910s and 1940s, along with polyvinyl chloride pipe installed in more recent times. Force main material is mostly ductile iron. Manholes are a mix of precast concrete and brick.

There are seven grinder pump stations (PSs) and fifteen lift stations throughout the system. Nearly all sewage is pumped by the county-owned PS to the treatment facility.

B. Project Need

Muskegon completed an AMP of its sewer infrastructure in 2017 with assistance from EGLE Stormwater, Asset Management and Wastewater grant funding. The structural integrity of numerous pipes have been found to be near failure. Furthermore, numerous pipes have inadequate capacity and are subject to backups. Some sewers are too deep, built below or adjacent to private businesses, and are difficult or impossible to access for maintenance and repair. Some were installed at less than appropriate grade, which causes sewage backups. Infiltration from leaky pipe joints and root intrusion exacerbates these problems. Pipe failures will threaten public health and water quality of Muskegon's numerous water bodies.

Described below are the areas targeted for construction in 2022:

- A sanitary sewer replacement project on Strong Avenue (Strong) was completed in 2020 and was the first phase of a larger project to replace sanitary sewers on Peck Street (Peck) and Sanford. The Strong sewer was deepened in preparation for these later projects so that the 8-inch diameter sewers on Peck and Sanford could be replaced at a steeper grade. This is because large portions of the sewers on Peck and Sanford from Laketon Avenue to Merrill Avenue (Merrill) have slopes far below the minimum slopes recommended by the 10 States Standards. These shallow sloped sewers cause slower wastewater flow velocities causing debris to settle out in the pipes. If these sewers are not maintained more frequently than normal, sewer backups into homes result. In addition, the pipes on these streets are 1920s vintage clay pipe in poor to failing condition due to fractures, holes, breaks, joint offsets and collapsing sewers. Sewers on Peck were replaced with CWSRF funds in 2021. For these reasons, a project is now needed on Sanford that has adequate sewer slopes and replaces the oversized trunk sewer on Merrill with a smaller adequately sized 8-inch diameter sewer.
- Most of the sanitary mains in the Glenside Neighborhood were installed in the 1930s in unmaintained alleyways. Many sewers and water utilities have fences, garages, trees, and other structures directly above them, causing routine maintenance and emergency response to be extremely difficult. Many manholes are inaccessible under fences in residential backyards. These are mostly clay sewers with fractures, holes, sags and breaks. A project is needed to reroute the most structurally deficient and inaccessible sewers from the alleyways to the city-owned roadways to reduce the risk of sewer backups, regain accessibility, and meet the needs of the 20-year design period.

C. Population

Muskegon's population is approximately 38,500, which is a slight decline from 2000 when it was a little over 40,000. Table I shows the projected population figures provided by the West Michigan Shoreline Regional Development Commission. There is some seasonal summer growth, but not enough to have noticeable impact in the wastewater flows.

| Year | Population |
|-------------|-------------------|
| 2000 | 40,105 |
| 2010 | 38,401 |
| 2020 | 38,529 |
| 2030 | 38,983 |
| 2040 | 39,442 |

III. PROPOSED ACTION

A. Alternatives

1. Sanford Sewers

No-action

Taking no action would ultimately result in sewer backups to homes as well as the environment from poor, aging, and defective infrastructure. Clearly, this is not acceptable.

Rehabilitation

This alternative would involve lining the 8-inch diameter gravity sewer on Sanford. While lowering the risk of failure, lining would not solve the flatter substandard slope issues of the Sanford sewer. It also could not solve joint offset defects in the pipe or the deteriorating brick manholes. Therefore, this alternative was not considered further.

Replacement of Sewer

This alternative requires replacing the old clay 8-inch and 20-inch diameter sewers with a new 8-inch diameter sewer at minimum recommended slopes.

2. Glenside Neighborhood Sewers

No-action

No action would likely increase the risk of failures in the old structurally deteriorating pipes, leading to sewage spills and basement backups. Meanwhile, the problems with accessibility to the pipes would remain to plague the city's staff in attempting any maintenance on the facilities. No action is unacceptable.

Rehabilitation

While lining the pipes lowers the risk of failures and would extend their useful lives, it does not address the O&M and accessibility problems. Thus, the rehabilitation alternative does make for a prudent choice for a 20-year planning period.

Reroute Sewer and Replace

Rerouting the structurally deficient sewers out of unmaintained alleyways and into the road right-of-way (Westwood Street to the west and Cumberland Street to the east) would solve all the issues being experienced in the neighborhood.

B. Description of Proposed Project

Muskegon selected the following alternatives for 2022 financing and construction:

Sanford– Sanitary Sewer Replacement
Glenside Neighborhood – Replace/Relocate Sanitary Sewer.

These projects are depicted on Figures 2A, 2B, 2C and 3.

C. Project Cost and Implementation

The estimated cost for the proposed project is \$6,687,000. Actual costs may differ when bids are received, and contracts let (See Table II).

| Table II. Project Cost Breakdown | | |
|---|---------------------------------------|-----------------------------|
| Description | Estimated CWSRF Eligible Cost* | Total Estimated Cost |
| Sanford Sewer | \$3,006,000 | \$4,453,000 |
| Glenside Neighborhood Sewers-Phase II | \$807,000 | \$2,234,000 |
| Total Cost | \$3,813,000 | \$6,687,000 |

* Ineligible work consists of water main improvements to be financed by the DWSRF and private side sewer lateral relocations in the Glenside Neighborhood to be funded by the city.

A CWSRF loan at a 1.875 percent interest rate is anticipated to finance the work. The CWSRF program is administrated by EGLE and the Michigan Finance Authority. Muskegon will have a choice of a repayment period—if 20 years, the interest rate is 1.875; if 30 years is chosen, the interest rate increases to 2.125 percent.

Typical metered sewer rates of a residential customer are about \$31.67 per month. A rate increase of approximately \$0.51 a month would be needed to service the CWSRF debt and pay for operation and maintenance, resulting in an average monthly cost of \$32.18 for a typical home. However, Muskegon qualifies as a disadvantaged community, and is expected to receive up to \$763,000 in principal loan forgiveness which may lower the financial impact of the project. Muskegon raises rates approximately three percent per year to keep up with inflation and needed capital improvements.

Muskegon anticipates starting construction shortly after the CWSRF loan closing on September 20, 2022. Construction is expected to require one to two years to complete, with improvements operational by late 2023 or early 2024.

IV. ENVIRONMENTAL CONSEQUENCES OF PROPOSED ACTION

A. Description of Affected Environment

Cultural Resources

In a previous phase of the project plan, the State Historic Preservation Office determined that no historic properties would be affected by the proposed project. In addition, Tribal Historic Preservation Officers were notified about the proposed project, and none expressed any specific concerns about the proposed project. No changes have occurred that would indicate these conclusions are not still valid.

Wetlands

All projects are located above the high-water mark. No impacts to wetlands are expected.

Endangered Species

The United States Fish and Wildlife Service and Michigan Natural Features Inventory reviewed the proposed projects previously and determined that no threatened or endangered species, critical habitat, or special natural features would be adversely affected.

Major Surface Waters

No harmful effects should occur to surface waters. Surface waters will benefit from protection against sewage spills that might otherwise occur if no action were taken to replace defective sewers.

Social Impacts

The proposed project will have a small cost impact to residents. The city carefully weighed all alternatives to select the most cost-effective solution for correcting the problems occurring in the areas described. Public health will be protected by eliminating the danger of sewer backups.

B. Mitigation Measures

Impacts of construction activities associated with the project are considered short-term disruptions that for the most part, will not extend beyond the period of construction. Structural and non-structural measures that avoid, eliminate, or mitigate these adverse impacts have been identified. Work will be confined to designated work hours and minimized on weekends or holidays to mitigate noise from construction activities. All equipment will be required to have proper exhaust systems and mufflers. Mitigation measures to minimize the negative effect of dust from construction will be utilized. A soil erosion and sedimentation control permit from Muskegon County will be required.

All areas disturbed by construction will be restored to existing conditions with compacted backfill, sand, gravel, and asphalt or concrete surfacing. Seeding and mulching will be performed promptly following land disturbance. Significant plants, such as trees and shrubs, will be protected from damage or replaced if damage is unavoidable.

V. PUBLIC PARTICIPATION

A public hearing on the CWSRF project plan was held on May 25, 2021, via virtual Zoom conference due to the COVID-19 pandemic. The hearing was advertised in the *Muskegon Chronicle* and on the city's web site. A copy of the draft plan was made available for a 30-day period at the Muskegon City Hall, 933 Terrace Street, prior to the hearing. No changes were made to the project because of the hearing. On May 25, 2021, the city commission passed a resolution adopting the final project plan and its selected alternatives.

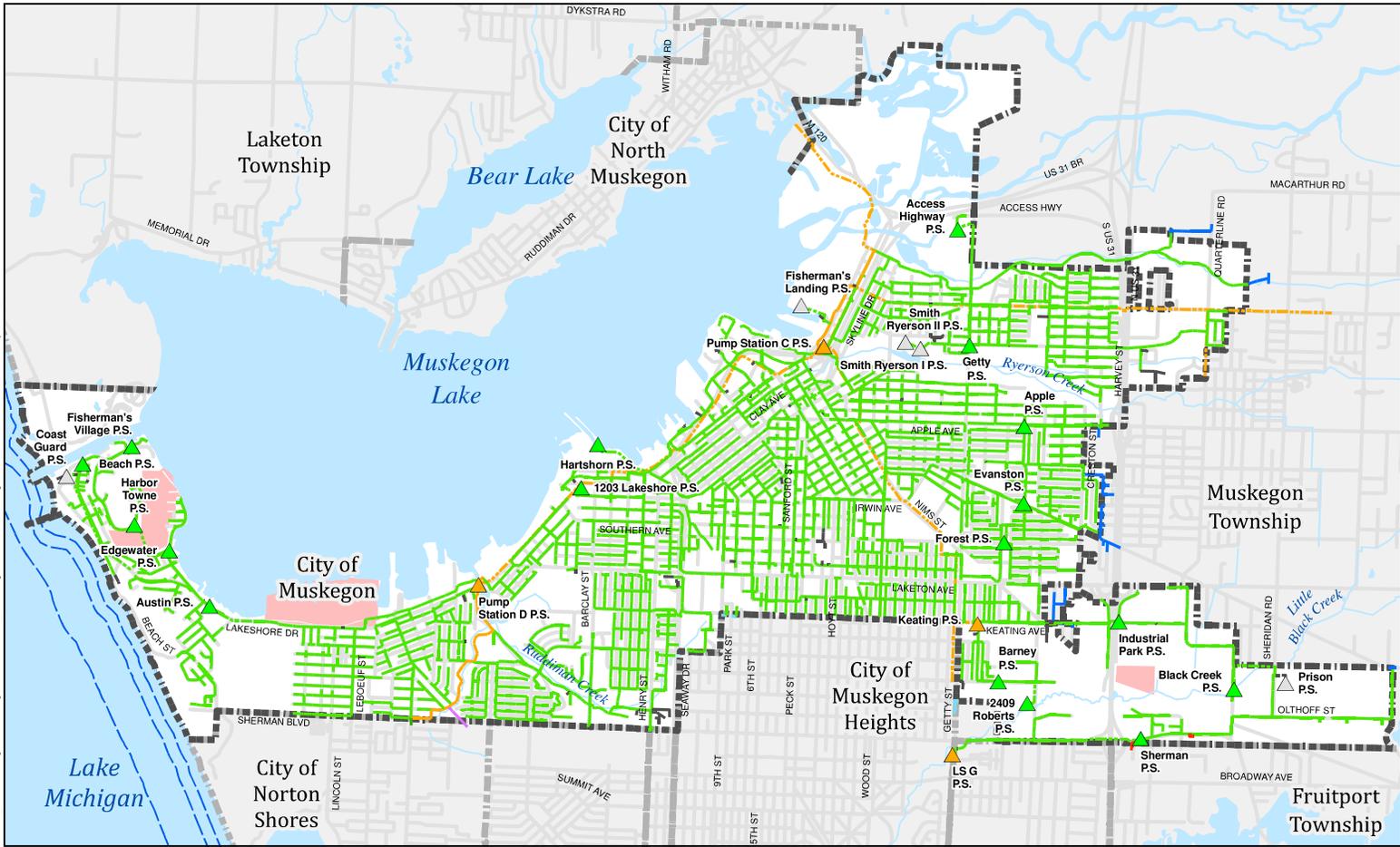
VI. REASONS FOR CONCLUDING NO SIGNIFICANT IMPACT

Expected adverse impacts from the proposed project appear to be minor and largely temporary in nature. There is a social cost to paying for the collection system upgrades and operating and maintaining the system. However, completing these upgrades results in increased structural integrity and minimizes risks to public health and the environment from sewage backups and overflows. This helps protect water quality in the Muskegon area. It is believed that these beneficial impacts proportionately outweigh the temporary negative impacts.

Any questions or concerns about this Environmental Assessment can be directed to:

Mr. David J. Worthington, Senior Project Manager
Water Infrastructure Financing Section
Finance Division
Michigan Department of Environment, Great Lakes, and Energy
P.O. Box 30457
Lansing, Michigan 48909-7957
Telephone: 517-554-1835
E-Mail: Worthingtond@michigan.gov

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1 inch = 4,500 feet

LEGEND

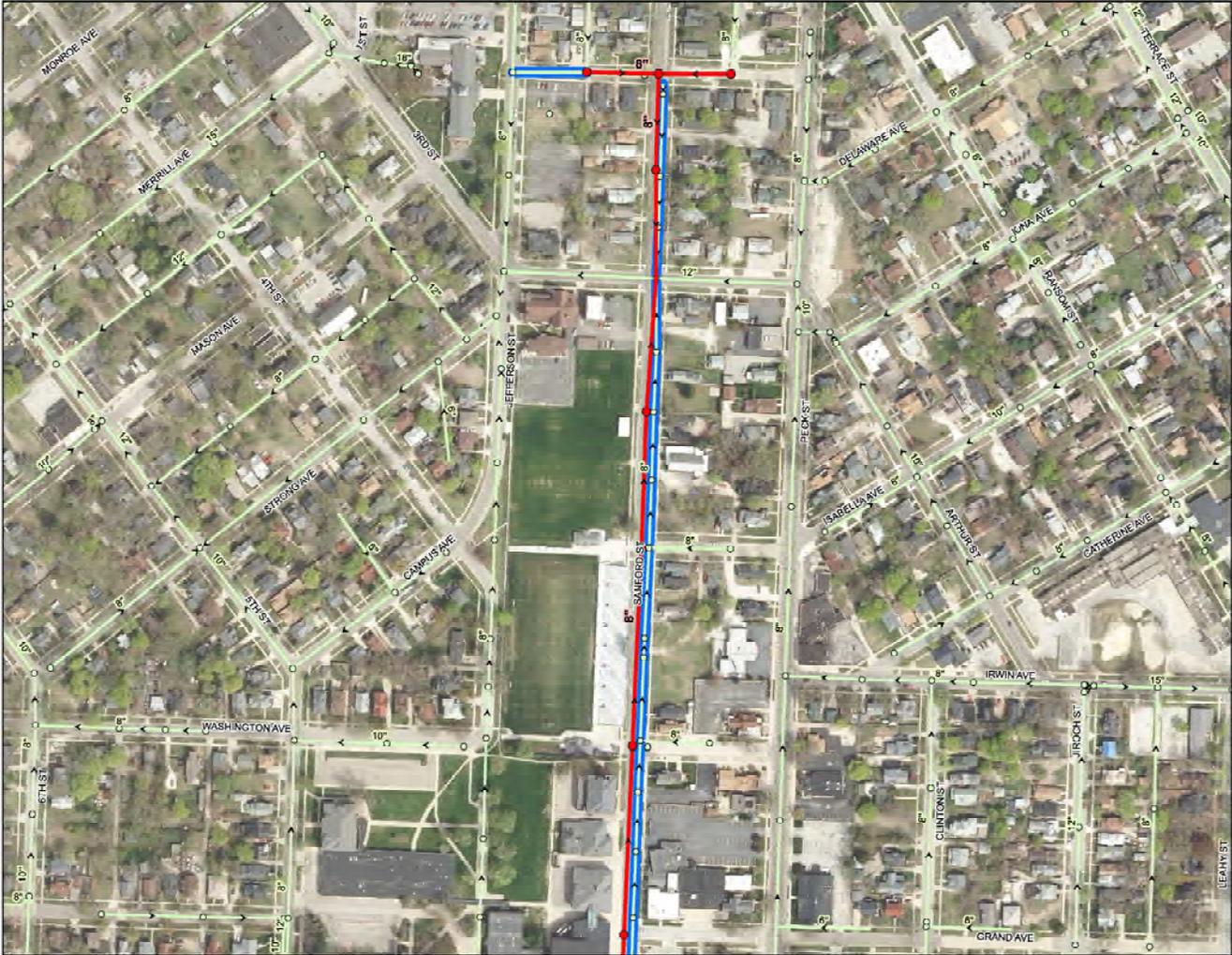
- | | | | |
|--------------------------------|----------------------------|-----------------------------|------------------------|
| Pump Station Ownership | | Force Main Ownership | |
| ▲ City of Muskegon | — City of Muskegon Heights | — City of Muskegon | ■ Future Service Areas |
| ▲ Muskegon County | — Muskegon Township | — Muskegon County | ■ City Service Area |
| ▲ Private | — Fruitport Township | — Private | |
| Gravity Sewer Ownership | — City of Norton Shores | | |
| — City of Muskegon | — City of Roosevelt Park | | |
| — Muskegon County | — Private | | |

CITY OF MUSKEGON
 MUSKEGON COUNTY, MI
 STATE REVOLVING FUND (SRF) PROJECT PLAN
WASTEWATER COLLECTION SYSTEM
 FIGURE 1
 APRIL, 2019
 HNTB & NICHOLS
 2180170

CITY OF MUSKOGON
MUSKOGON COUNTY, MICHIGAN
SANFORD STREET
SANITARY SEWER REPLACEMENT
CONCEPTUAL DESIGN
FIGURE 2A
P:\Projects\Sanitary\2210212

LEGEND

- Proposed Manhole
- Proposed Gravity Main
- Existing Manhole
- Existing Gravity Main
- Existing Gravity Main - To Be Abandoned



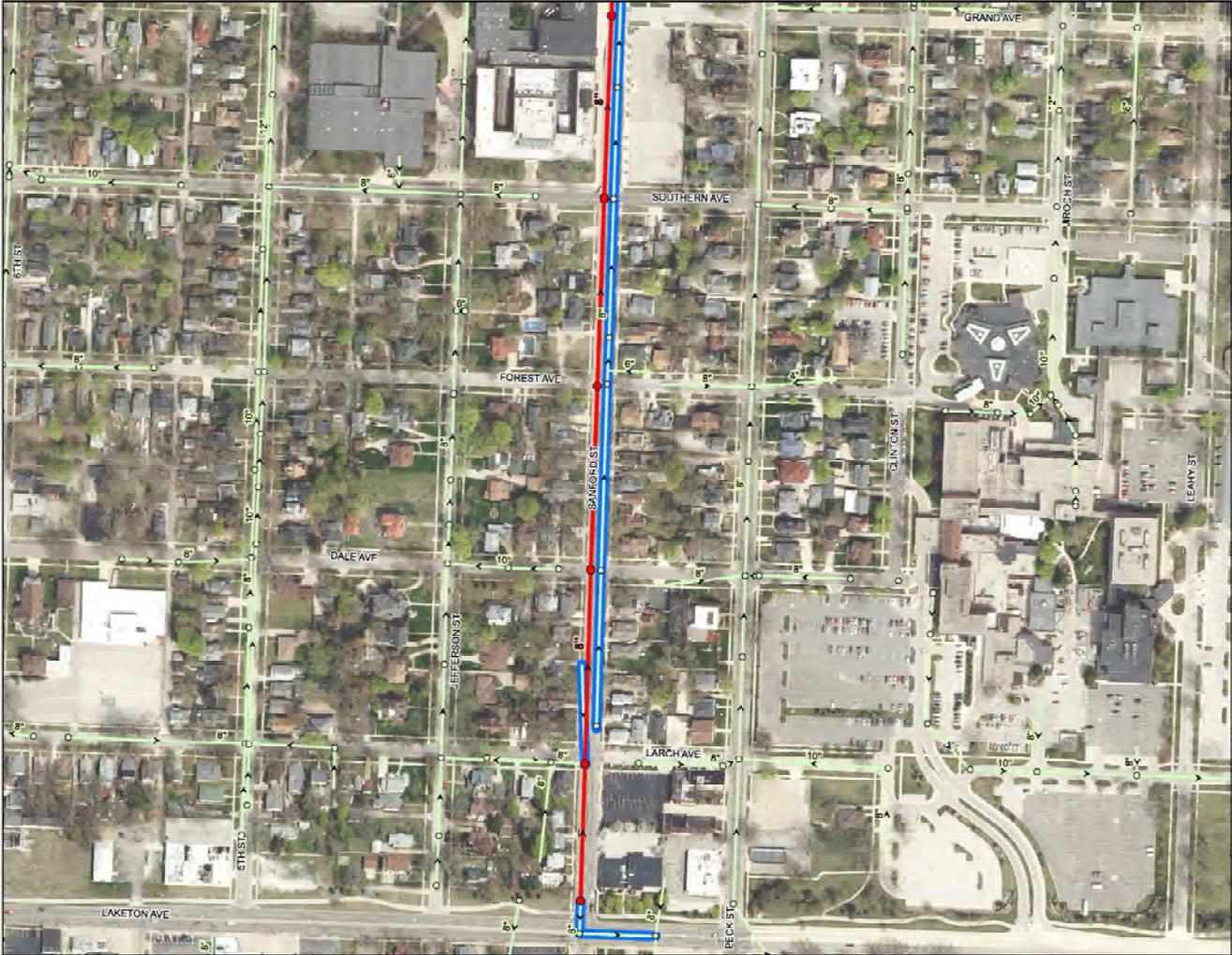
SCALE: 1" = 200'

CITY OF MUSKOGON
MUSKOGON COUNTY, MICHIGAN
SANFORD STREET
SANITARY SEWER REPLACEMENT
CONCEPTUAL DESIGN
FIGURE 2B
PWS 2016 Sewer and
2210212

LEGEND

- Proposed Manhole
- Proposed Gravity Main
- Existing Manhole
- Existing Gravity Main
- Existing Gravity Main - To Be Abandoned


SCALE: 1" = 200'

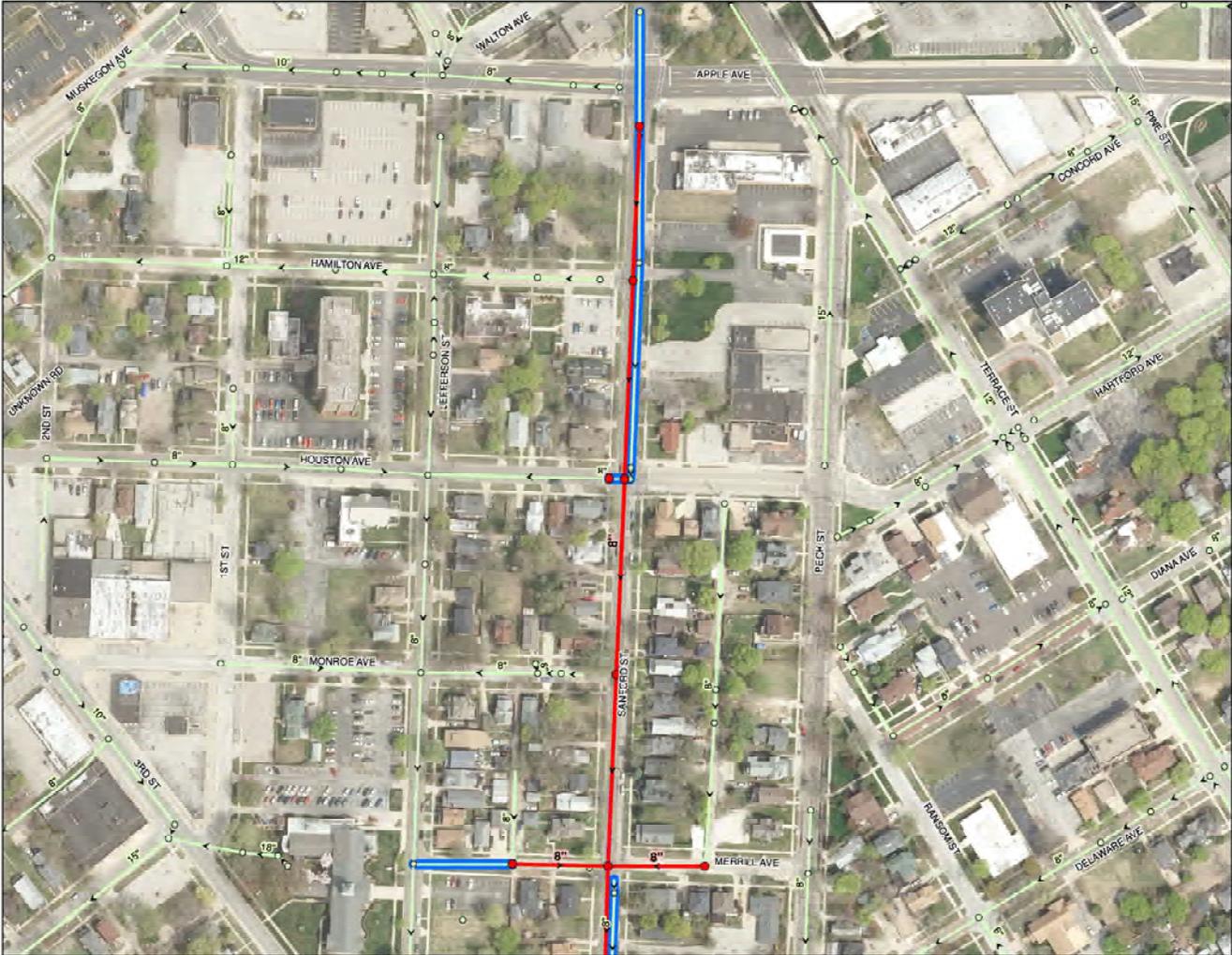


CITY OF MUSKEGON
 MUSKEGON COUNTY, MICHIGAN
**SANFORD STREET
 SANITARY SEWER REPLACEMENT
 CONCEPTUAL DESIGN**

FIGURE 2C
 Plan of Sanford St
 2210212

LEGEND

- Proposed Manhole
- Proposed Gravity Main
- Proposed Forcemain
- Existing Manhole
- Existing Gravity Main
- Existing Gravity Main - To Be Abandoned



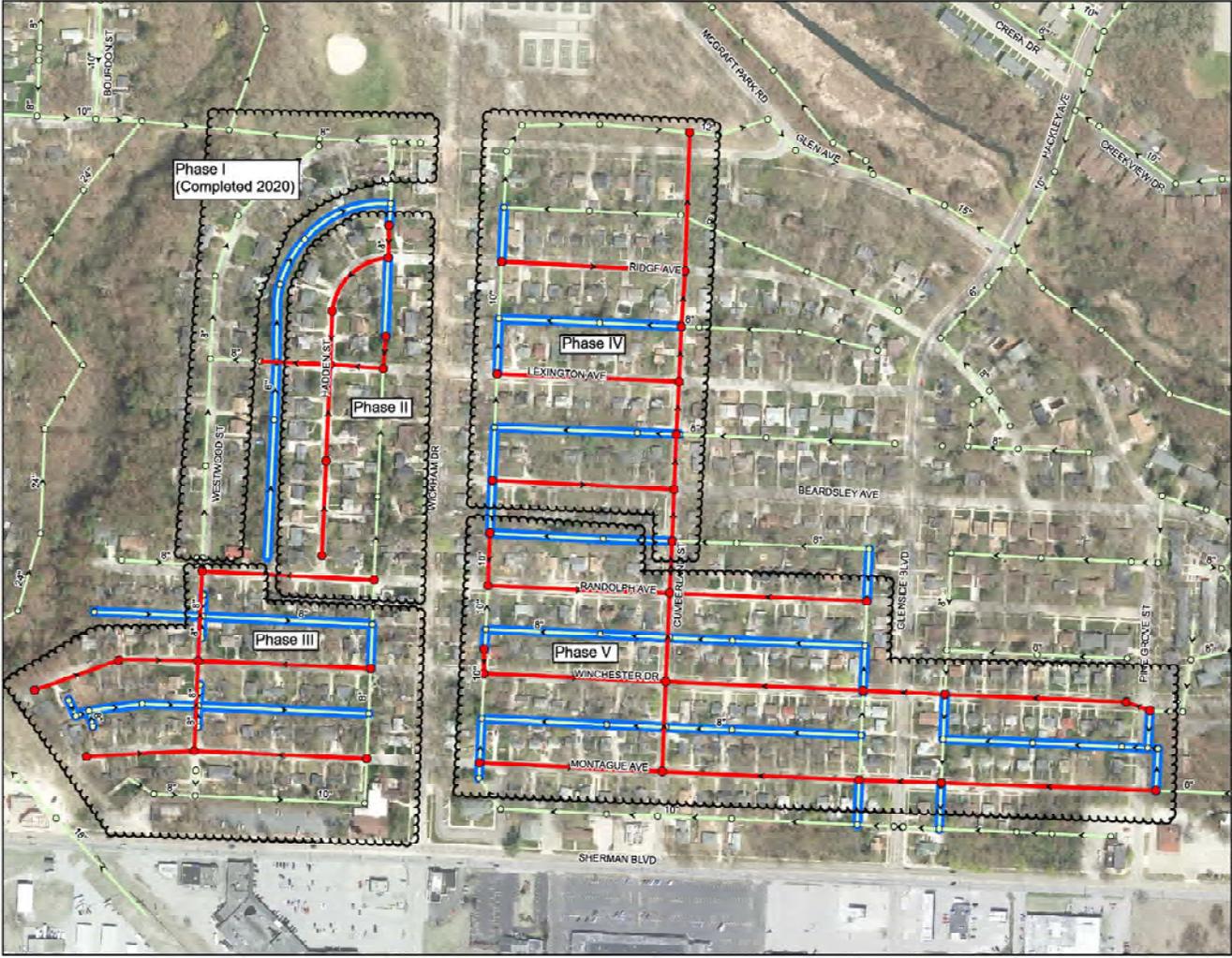
SCALE: 1" = 150'

CITY OF MUSKOGON
MUSKOGON COUNTY, MICHIGAN
**GLENSIDE NEIGHBORHOOD SEWERS
CONCEPTUAL DESIGN**

FIGURE 3
Project No. 22102

LEGEND

- Proposed Manhole
- Proposed Gravity Main
- Proposed Foremain
- Existing Manhole
- Existing Gravity Main
- Existing Gravity Main - To Be Abandoned




SCALE: 1" = 250'