

SOUTHWEST LICKING COMMUNITY WATER & SEWER DISTRICT

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April 12, 2024

REQUEST FOR QUALIFICATIONS AND PROPOSAL

PROFESSIONAL ENGINEERING SERVICES

SOUTHWEST LICKING COMMUNITY WATER AND SEWER DISTRICT MINK NORTH & BLANCHES EAST LIFT STATIONS IMPROVEMENTS PROJECT

OBJECTIVE

The objective is to request a statement of qualifications to select a qualified engineering firm to complete the engineering services required to design and construct lift station renovations and force main improvements for the Mink North and Blanches East Lift Stations in accordance with the project "Scope of Services" and Ohio EPA requirements.

BACKGROUND

In September 2022, the District hired CDM Smith to prepare a master planning document to evaluate both water and sanitary sewer service within the existing "legacy" service territory. The "Integrated Water and Wastewater Master Plan" is nearing completion and is anticipated to be utilized as a guidance document for the design of the proposed renovations and force main improvements. Portions of the planning document pertinent to this project have been included within the qualifications package.

MINK NORTH LIFT STATION RENOVATION (LS-33)

It is anticipated that renovations will include changing from a suction lift style to submersible style lift station. The new pumping system and electrical systems will need to be evaluated and properly sized for current and future conditions. An emergency power system will also need to be evaluated as part of the project.

MINK STREET FORCE MAIN IMPROVEMENTS

The existing force main along Mink Street will need to be evaluated for current and future pumping conditions. An extension of the force main will need to occur from its existing discharge point to the new Pataskala Corporate Park sanitary sewer system.

BLANCHES EAST LIFT STATION (LS-15)

The new pumping system and electrical systems will need to be evaluated and properly sized for current and future conditions. An emergency power system will also need to be evaluated as part of the project.

EAST AVENUE FORCE MAIN IMPROVEMENTS

The existing force main along East Avenue will need to be evaluated for current and future pumping conditions. An extension of the force main will need to occur from its existing discharge point to the new Pataskala Corporate Park sanitary sewer system.

SCHEDULE

It is anticipated that design services will need to be completed within 9 months following contract award depending on final scope.

FUNDING

The District has not determined funding for the construction of the new facilities but anticipates utilizing DEFA, WPCLF, or OWDA Funding.

EVALUATION CRITERIA

The following are the primary evaluation criteria and the anticipated weights the District plans to utilize to select the best qualified engineering firm. The right to change this criteria and weights assigned is retained by the District throughout the selection process. Selection is subjective in many areas and the decision of the District will be final and not subject to re-evaluation by the firms submitting a Statement of Qualifications. 100 Points Possible

A) Demonstration of Interest-Weight Factor 5

B) Stability & Responsibility-Weight Factor 5

Such considerations as; length of time firm has been in business, length of time principals have been with firm, financial responsibility, professional liability coverage, ability to be bonded, etc. will be included in this area.

C) Location-Weight Factor 5

Such consideration as; location of firm's office that will be responsible for project coordination, previous work in the general geographic area, key project personnel office location, etc. will be included in this area. (This criterion is being considered because lower project costs should result if limited travel expenses, etc. are required. In addition, better communication can be maintained which should result in a more complete and higher quality project.

D) Experience-Weight Factor 25

Such considerations as; other similar projects completed by the key personnel of the firm, support staff abilities, range of in-house capabilities etc. will be included in this area. Quality and Feasibility of Technical Proposal.

E) Design Ability-Weight Factor 25

Such considerations as; ability of firm to complete the required work in-house, ability of firm to utilize full time staff to complete work, range of firm's staff in the technical areas needed for the design associated with the project, subcontractors and use of out of state staffing needed to complete the project, etc. will be included in this area.

F) Quality of Work-Weight Factor 25

Such considerations as; adequateness of material supplied to permit evaluation, quality of presentation, cooperation, concern, etc. will be included in this area.

G) Previous work with the District - Weight Factor 5

List of previous projects completed with the District.

H) Utilization of local companies/resources - Weight Factor 5

Such consideration as; firms or consultants utilized that are located within Licking County, Ohio.

STATEMENTS OF QUALIFICATIONS

The specific format of the Qualifications shall be per the responding firm's judgment. In general, proposals shall be organized in a manner that will facilitate the evaluation of the responding firm under the criteria stated herein. It is desirable that the responding firm's qualifications specifically address each evaluation criteria. Additional information over what is listed for each criterion in the preceding section that is deemed relevant may also be submitted. Proposals shall be limited to 20 pages (front only) of content not including the cover sheet, table of contents, and resumes.

The District requests, that in addition to a general list of representative projects, responding firms select one or two of its completed projects of comparable size, scope, and treatment technology for a detailed project description. The selected project shall be a project that has been "up and running" for no more than ten years. A detailed description of services rendered, the name, mailing address and phone number of the client's project manager, and the name and mailing address of the general contractor along with the name and telephone number of its project superintendent are required.

The responding firms are also requested to provide a proposed project team that will most likely work on this project. Members listed should include personnel from the partner-in-charge down to the engineer-in-training level. Sub-professional level employees not providing a significant role on the project do not need to be included.

A resume of each member of the team is needed and should detail relevant experience, length of service with the firm and job duties during his/her tenure, educational background, and professional background.

The District requests that the responding firms list their proposed sub-consultants and role on the project. A detailed proposal is not needed from each sub-consultant but information showing the sub-consultant is an established competent firm with a good reputation in the field for which it will be used needs to be submitted.

The District also requests an overview of your quality control methods or review procedures.

INTERVIEWS

The District reserves the right to conduct face-to-face interviews with any, all, or none of the responding firms. In the event the District selection committee deems interviews necessary to select the best firm, the District will establish a meeting at a mutually acceptable time. The District selection committee will meet with key members of the firm's proposed project team. It shall be the selection committee's sole decision on whether any interviews are held and with which firm's interviews are held.

The District will accept qualifications until **four o'clock May 14, 2024**, at the District's office located at 8675 York Road SW, Pataskala, Ohio 43025.

If you are sending your proposal via the United States Postal Service, please mail to P.O. Box 215, Etna, Ohio 43018.

Each firm shall submit a total of four hard copies of the proposal in a sealed envelope clearly marked on the outside "Statement of Qualifications for Professional Engineering Services", SOUTHWEST LICKING COMMUNITY WATER AND SEWER DISTRICT MINK NORTH & BLANCHES EAST LIFT STATIONS IMPROVEMENTS PROJECT. Each firm shall also submit an electronic PDF version of the proposal included with the hard copies.

The District retains the option of rejecting or accepting any Statements of Qualifications. Should a firm be selected and the District cannot negotiate a contract with the selected firm ranked best qualified, the District shall inform the firm in writing of the termination of negotiations and enter into negotiations with the firm ranked next best qualified. If negotiations again fail, the same procedure shall be followed with each next best qualified firm selected until a contract is negotiated. However, the District retains the right to reject all proposals and initiate the process of obtaining Qualifications from qualified engineering firms at a later date.

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Scope of Services

Mink North & Blanches East Lift Stations Improvements Project

Phase I

1. Provide surveying for sanitary main alignment and necessary easement acquisition for the project
 - a. The survey at minimum shall include:
 - i. Topographic data acquired by GPS along the entire sanitary main alignment using the state plane coordinate system
 - ii. Utility and property lines are to be located along with edge of pavement, ground, fences, and tree lines
 - iii. Benchmarks set at 1000 feet intervals
 - b. Survey, prepare required documentation, and acquire easements needed for the project
 - i. It is anticipated that the consultant will be the easement acquisition agent acting on the behalf of the District
2. Update the existing sanitary sewer flow model (PCSWMM) for the proposed sanitary sewer system
 - a. Provide optimal sizing, head conditions, etc. for both the piping and pumping systems
3. Provide geotechnical services as deemed necessary to design the piping and pumping systems
4. Design and prepare detailed plans for submission to the Ohio Environmental Protection Agency. Project plans at minimum must consist of the following:
 - a. Base map using the topographic survey data above
 - b. Detailed drawings of the lift stations and force mains from the connection point to the projected end points
 - c. Maintenance of Traffic Plan for any work to be performed within the public right of way.
5. Monthly budget and design progress meetings accordingly (Kickoff, 30%, 60%, 90%).
6. Develop a detailed, itemized construction cost estimate
7. Prepare detailed project specifications and bid documents for the project
8. Develop proposed project implementation schedule including permitting, construction, and other related activities
9. Provide technical support and assistance with review of the final plans and specifications
10. Prepare/submit governmental permits for all structures and respond accordingly. Permitting agencies may include but is not limited to the following:
 - a. Ohio Environmental Protection Agency
 - b. Ohio Department of Commerce – State Fire Marshall
 - c. Ohio Department of Transportation

- d. City of Pataskala, Ohio
 - e. Licking County, Ohio Building Codes
 - f. Licking County Engineers Office
11. Prepare/submit funding applications for OWDA, DEFA, WPCLF, etc.

Phase II

12. Provide a cost for construction phase professional engineering services including bidding services, contract administration, payment review, shop drawing review, materials testing, as-built drawings, etc. These services shall be considered and awarded at a different time if deemed necessary by the District.
13. Utilizing as-built drawings update hydraulic model to reflect actual installed conditions as a final model of the system utilizing PCSWMM.

Section 6

Wastewater System Capital Improvement Plan

6.1 Approach to CIP Development

The identified capital improvements discussed in this section were developed with consideration of the District's current and long-range projected land use and flows while using currently available information. Conditions will change with time and potential uncertainties will impact the accuracy of the plan in later years. It is important that the District re-evaluates each CIP to better reflect costs as the projects become closer to implementation. The information used to inform the CIP projects was developed based on anticipated growth, modeling results, and planning information. The CIP is subject to change if the planning information and forecasts differ from those used to develop the CIP.

The first half of this section presents the identified CIPs within the Wagram WWTC and Gale Road ECF service areas, while the second half provides planning level cost estimates for capital improvements project and recommended implementation timelines. Major capital elements are itemized with unit prices based on the information from past projects and outside resources (both locally and nationwide) for the major capital categories. CIP projects were developed using modeled pipeline quantity estimates and data. GIS mapping was used to identify areas of interest, such as utilities and road crossings. The unit prices were then multiplied by the quantity of each element. Project elements that were difficult to estimate during the planning stage are included in the overall cost as a percentage of the total for the itemized project elements. During design development, the more specific data will be used to inform the design and resulting project cost estimate.

Planning level cost development considers the major categories of capital projects because the detailed field and design information is not available to allow for a more detailed and itemized cost estimate. This information is typically developed during the design and is used similar to that developed during preliminary and final design. Increasing the number of cost elements (and complexity of the estimate) does not increase the project cost accuracy as many of these elements are unknown during the planning phase.

6.2 Identified CIPs

The District service area was divided into two major sewersheds to develop system improvements based on their discharge location at the Wagram WWTC (currently under design) and the existing Gale Road ECF. This subsection summarizes identified CIPs for the service areas of both sewersheds. CIP project components were sized to convey and/or store peak flows for the 20-year planning horizon, 5-year design storm. Design criteria as summarized in Section 5 were referenced and used in the development process.

During the CIP development process, it was understood that it is the District's plan to bring the Wagram WWTC online within the next 5-years, as well as route flows from the new Etna Parkway gravity sewer and force main to the Wagram WWTC, thereby creating two separate service areas.

Given that these projects are already underway, they are not included as proposed CIPs in this master plan. It has been assumed both projects will be complete and online within five years and were modeled as such in the CIP development process. The approximate Wagram WWTC and Gale Road ECF service area boundaries are shown in **Figure 6-1** based on existing customers and future developments.

All gravity sewers that were identified as deficient under section 5.2 were recommended for upsizing and costed as such; however, during design of these improvements, parallel sewers can be considered based if there is available space given other existing subsurface utilities. When upsizing was recommended, it was also assumed sewer alignment, slopes and depths would remain consistent with existing conditions.

Efforts were made to identify and include locations where collection system extension will be required to service future portions of the SWL service area. These extension projects have been included as recommended CIPs, however projects that would be anticipated to be completed by developers in order to extend service to new developments is not included in the CIP planning. Furthermore, pipes that may need be replaced due to condition or age were also not considered.

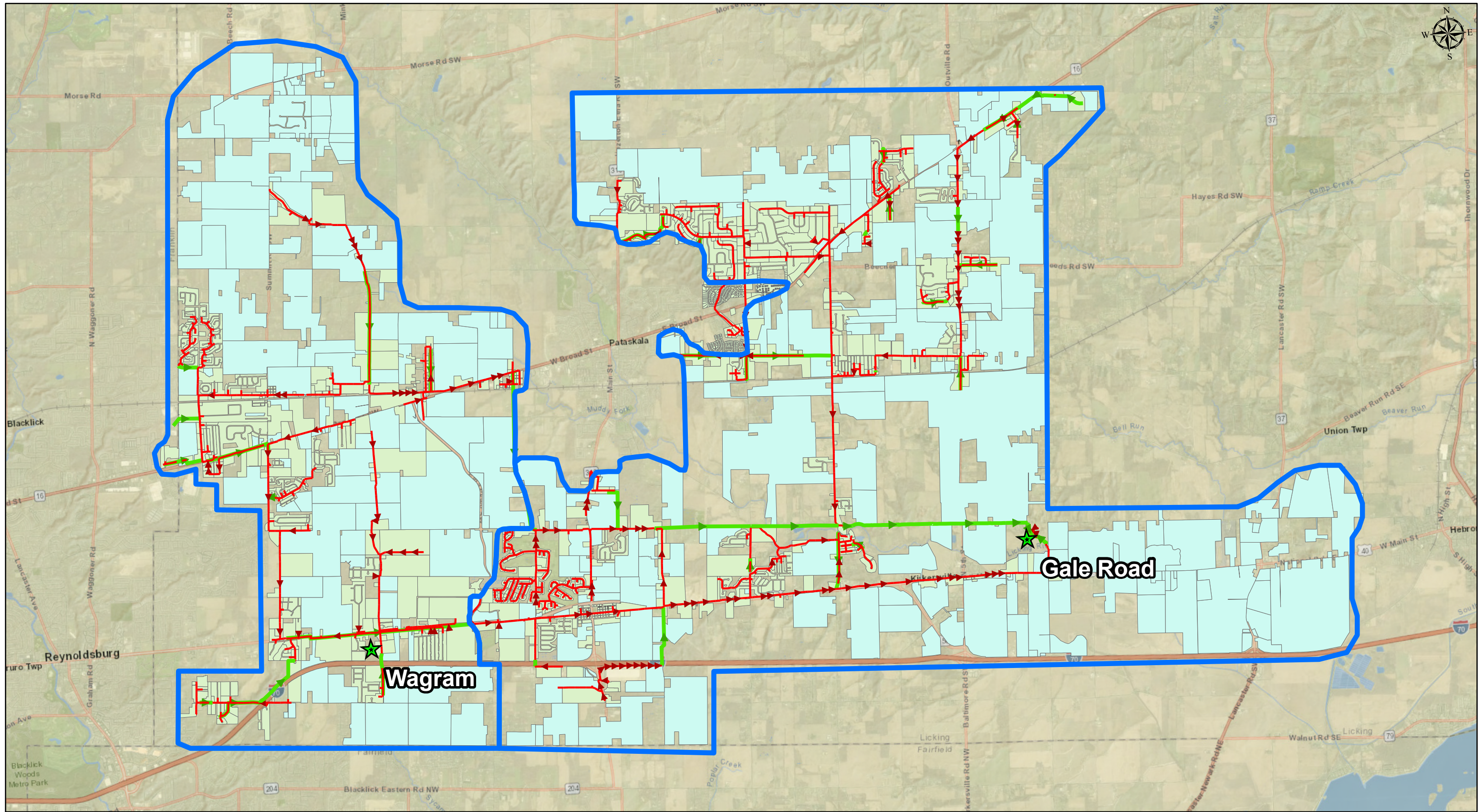
The following subsections summarize the CIPs for the Wagram WWTC and Gale Road ECF service areas. The CIPs have been categorized based on the service area they fall into and the recommended planning horizon they should be considered for implementation. The recommended CIP implementation schedule is discussed in greater detail under Section 6.3. Unit costs were developed for use in project cost development as described in section 6.3. Detailed cost estimates are included in **Appendix D**.

6.2.1 Wagram WWTC Service Area

This subsection summarizes identified CIPs for the Wagram Road WWTC service area. They have been categorized by location and named accordingly.

6.2.1.1 Mink Street and Summit Road

Within the northwest portion of the Wagram WWTC service area, warehouse development is anticipated to occur the next five years, followed by significant residential development 5 to 20 years from now. Currently, the area is serviced by a 12-inch gravity sewer which discharges to lift station LS-33 (Mink North). Model results indicate that the existing gravity sewer, lift station, and force main do not have sufficient capacity to convey peak flow for the 20-year, 5-year design storm, leading to predicted SSOs upstream of LS-33. Given the existing surface terrain, it is not feasible to route future flow away from the existing gravity sewer and LS-33. Therefore, upsizing of the existing 12-inch gravity sewer, LS-33, and its force main are necessary to be able to convey the anticipated development flows anticipated in the next 20 years.



- Future Developments
- Existing Customers
- Service Areas
- Gravity Sewer
- Force Main
- WWTP

Figure 6-1
Wagram WWTC and
Gale Road ECF service area boundaries

0 3,000 6,000
 Feet
 1 inch = 5,744 feet

Model results indicate that approximately 9,000 LF of the existing gravity sewer should be upsized to 15-inch to meet the freeboard criteria. LS-33 should also be upgraded to convey the 20-year, 5-year design storm peak flow of 3.75 mgd, and the force main size should be 12-inch to handle the increased peak flows. Additionally, per discussion with the District, it is anticipated this force main will be rerouted to the north end of the Etna Parkway gravity sewer, currently under construction. The approximate length of the new 12-inch force main is 11,800 LF.

In addition to improvements to the existing system as described above, an estimated 10,300 LF of 8-inch gravity sewer, 2,500 LF of 10-inch gravity sewer, and 3,100 LF of 12-inch gravity sewer will need to be constructed to service future areas sufficiently. **Figure 6-2** illustrates the recommended CIPs for this area, the quantities of these recommendations are summarized in **Table 6-1**. Detailed cost estimates for CIPs are included in Appendix D, Table 6-1.

Table 6-1 Mink and Summit CIP Summary

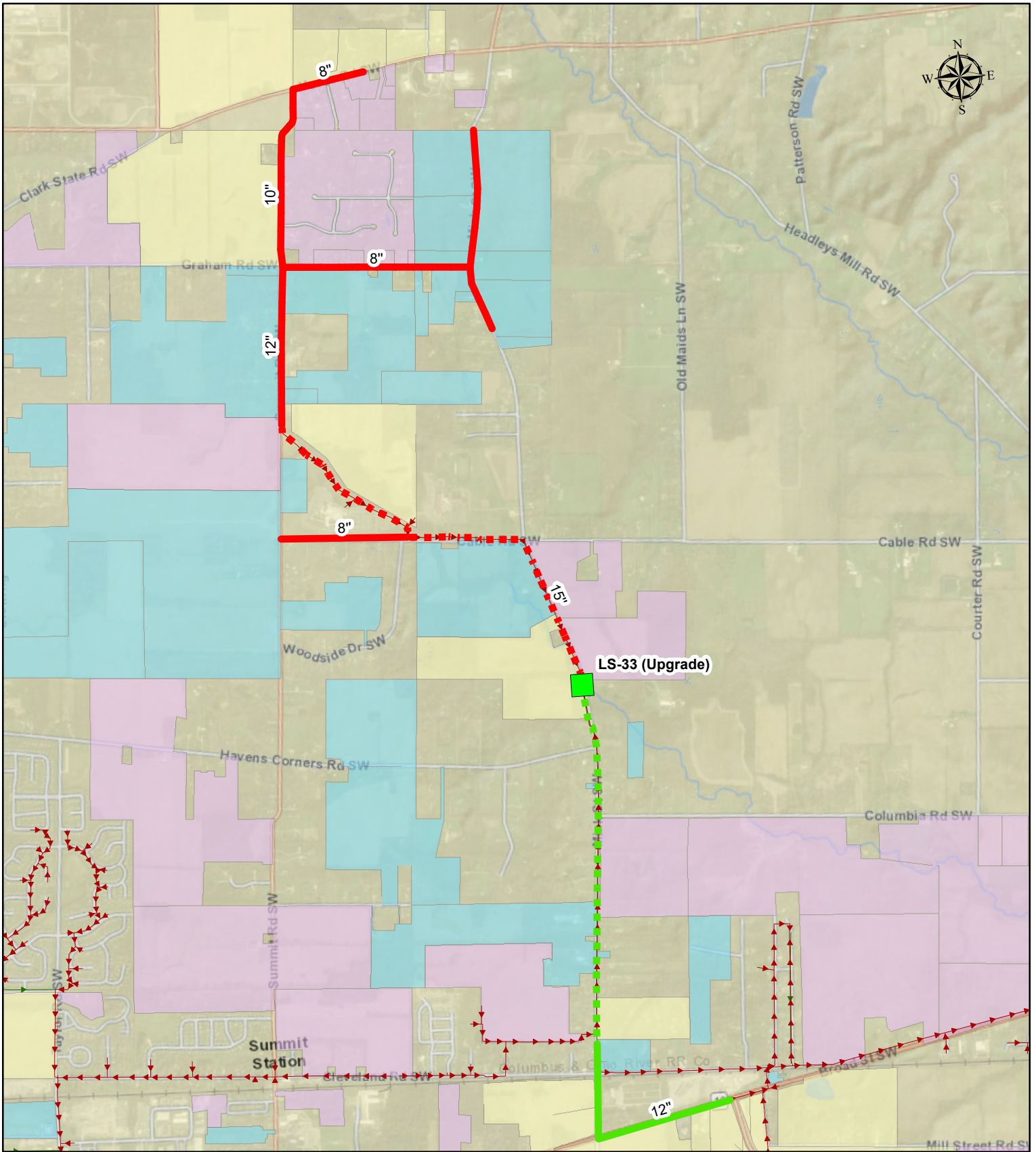
Item	Existing Design (inches diameter or capacity)	New Design (inches diameter or capacity)	Quantity	Construction Period
New 10" Gravity Sewer	-	10"	2,500'	0-5 Years ¹
New 12" Gravity Sewer	-	12"	3,100'	0-5 Years ¹
New LS-33 12" Force Main	8"	12"	11,800'	0-5 Years ²
LS-33 Upgrade	0.7 mgd w/ existing force main	3.75 mgd	1	0-5 Years ²
New 8" Gravity Sewers	-	8"	10,300'	10-20 Years
Existing Sewer Upsize	12"	15"	9,000'	10-20 Years

¹ New gravity sewer needs to be constructed within 5 years for development to occur in the 0-5 Year Planning Horizon as projected.

²To be constructed once the Etna Parkway gravity sewer and Wagram WWTC are online.

6.2.1.2 Blanches East and Columbia Center

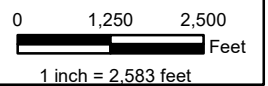
As discussed above, it is anticipated that **LS-33 (Mink North lift station)**, currently tributary to LS-10 (Columbia Center lift station), will be diverted to the new Etna Parkway gravity sewer. LS-15 (East lift station) is also tributary to LS-10. Residential development tributary to LS-15 and LS-10 is projected to occur at least five years from now. Once the Etna Parkway gravity sewer is complete, it is anticipated that the discharge from LS-10 will be rerouted to this new gravity sewer via a Refugee Road force main.



- New Force Main
- - - Upsized Force Main
- New Gravity Sewer
- - - Upsized Gravity Sewer
- Existing Gravity Sewer
- Existing Force Main
- Lift Station

- 10-20 Year Development
- 5-10 Year Development
- 0-5 Year Development

Figure 6-2
Mink & Summit CIPs



Model results indicate the following deficiencies for the 20-year planning horizon, 5-year design storm:

- **LS-15 4-inch force main:** force main is inadequately sized causing upstream surcharging.
- **Gravity sewer along Broad Street upstream of LS-10:** Even if LS-33 flows are diverted to Etna Parkway, the gravity sewer along Broad Street, upstream of LS-10, is still undersized for the 20-year, 5-year design storm peak flows.
- **LS-10:** LS-10 has inadequate capacity to pump the 20-year, 5-year design storm peak flows to Etna Parkway via Refugee Road.

Model results indicate that if the force main associated with LS-15 is upsized from 4-inch to 8-inches, the existing lift station has sufficient capacity to convey peak flows for the 20-year, 5-year design storm with acceptable velocities. Additionally, it is recommended that LS-15 flows be diverted to the upstream end of the new Etna Parkway gravity sewer once its construction is complete to alleviate future capacity limitations through the Broad Street gravity sewer.

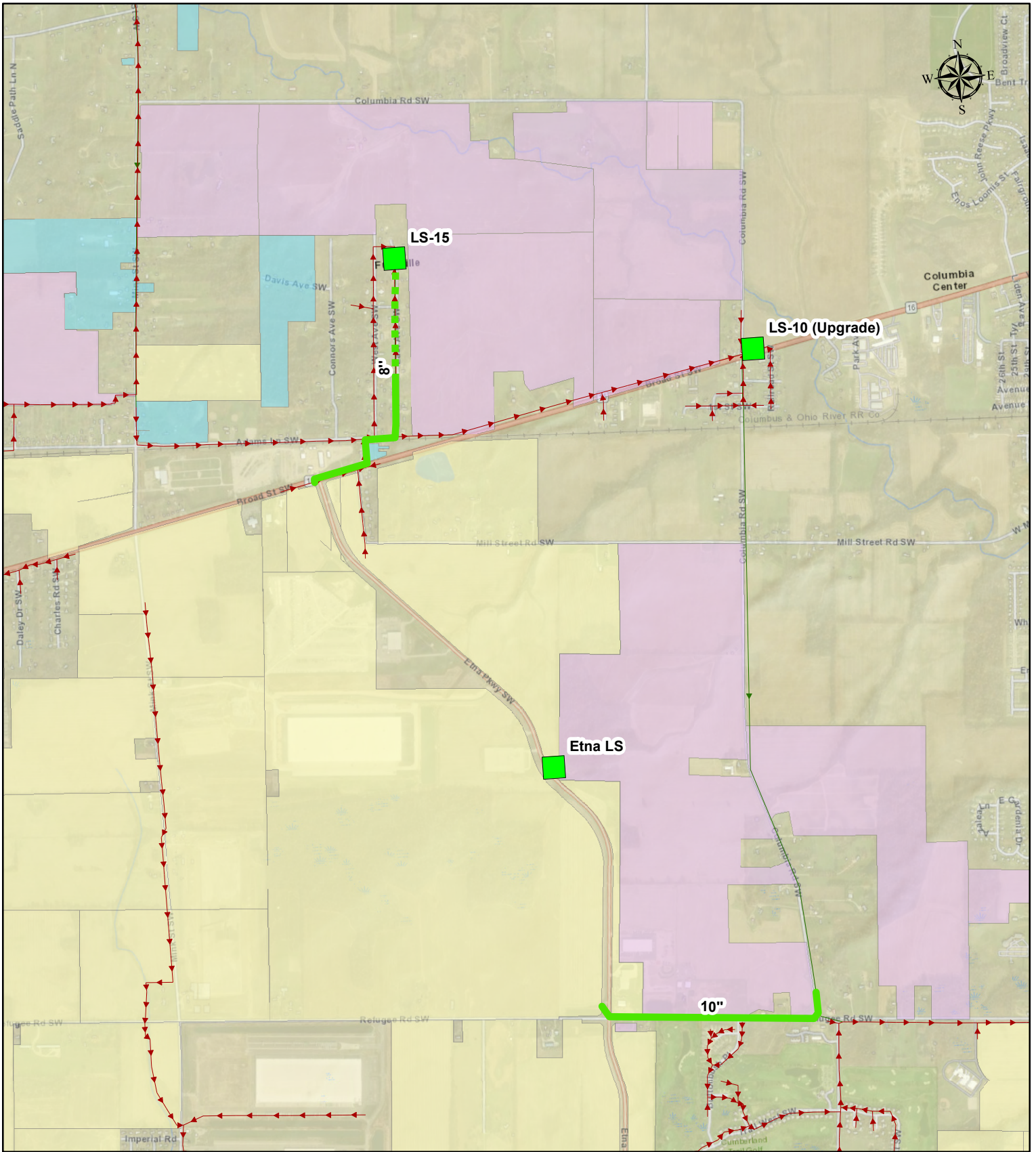
Model results indicate that the additional static head (as a result of the elevation) LS-10 will pump to once rerouted to Etna Parkway decreases the lift stations capacity enough such that upsizing of the lift station will be required to convey peak flows for the 20-year, 5-year design storm.

Figure 6-3 illustrates the recommended CIPs for this area. **Table 6-2** summarizes the quantities for the CIP recommendations. Detailed cost estimates for CIPs are included in Appendix D, Table 6-2.

Table 6-2 Blanches East and Columbia Center Area CIP Summary

Item	Existing Design (inches diameter or capacity)	New Design (inches diameter or capacity)	Quantity	Construction Period
New 8" Force Main (LS-15)	4"	8"	4,300'	0-5 Years ¹
LS-10 Upgrade	0.7 mgd w/ realignment to Etna	0.8 mgd	1	0-5 Years ¹
New 10" Force Main (LS-10 Diversion)	-	10"	3,300'	0-5 Years ¹

¹To be constructed once Etna Parkway gravity sewer and Wagram WWTC are in service.

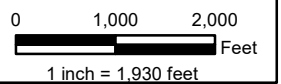


- New Force Main
- - - Upsized Force Main
- New Gravity Sewer
- - - Upsized Gravity Sewer

- Existing Gravity Sewer
- Existing Force Main
- Lift Station

- 10-20 Year Development
- 5-10 Year Development
- 0-5 Year Development

Figure 6-3
Blanches East and
Columbia Center CIPs



1.3.7 Blanches East (LS-15)

The Blanches East lift station is located near 186 East Avenue SW, Pataskala, OH 43062



Figure 1-7 Blanches East Lift Station

Table 0-7 Blanches East Lift Station Data

Parameter	
Measured Wet Well Diameter	6'
Measured Wet Well Depth	19.6'
Observed Incoming Pipes	8" (2)
Observed Outgoing Pipes	4"
Pump Station Configuration	Duplex
Lift Station Install Date	~1993
Pump Design Flow	132 gpm
Pump 1 Mfr.	Barnes
Pump 1 Type	Submersible
Pump 1 Hp	10 Hp
Pump No. 1 Flow	145 gpm
Pump 2 Mfr.	Barnes
Pump 2 Type	Submersible
Pump 2 Hp	10 Hp
Pump No. 2 Flow	152 gpm

The Blanches East lift station was installed in the mid-1990s and is approximately 30 years old. The pump station control panel has been replaced recently, and new electrical equipment includes new Schneider VFDs. Available records indicate that the pumps were replaced in 2022 (pump 1) and 2017 (pump 2). The pumps are performing adequately compared to the design flow. No recommendations are offered for this station.

1.3.29 Mink North (LS-33)

The Mink North lift station is located at 4960 Mink Street SW, Pataskala, OH 43062.



Figure 1-28 Mink North Lift Station

Table 0-28 Mink North Lift Station Data

Parameter	
Measured Wet Well Diameter	8'
Measured Wet Well Depth	22.0'
Observed Incoming Pipes	18", 15"
Observed Outgoing Pipes	8"
Pump Station Configuration	Duplex
Lift Station Install Date	1996
Pump Design Flow	314 gpm
Pump 1 Mfr.	Gorman Rupp
Pump 1 Type	Suction lift
Pump 1 Hp	20 Hp
Pump No. 1 Flow	291 gpm
Pump 2 Mfr.	Gorman Rupp
Pump 2 Type	Suction lift
Pump 2 Hp	20 Hp
Pump No. 2 Flow	317 gpm

The Mink North lift station was installed in the mid-1900s and is approximately 25 years old. The pumps appear to be performing adequately compared to their design flow. No recommendations are offered for this station.