



Jones & Henry
ENGINEERS, LTD.

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April 1, 2025

Mayor Jeffrey Hazel
City of Celina
225 North Main Street
Celina, Ohio 45822

Subject: City of Celina, Ohio
WWTP Preliminary Design

Dear Mayor Hazel:

Jones & Henry is pleased to provide a proposal, as requested, for the Preliminary Design of the Wastewater Treatment Plant (WWTP) at the City of Celina.

Project Understanding

The City of Celina (City) operates and maintains the Sanitary Sewer System and the WWTP. The existing City WWTP was originally constructed in 1939 as a secondary treatment plant, with a nominal design capacity of 0.90 mgd and a peak pumping rate of 2.45 mgd. In 1962, additional treatment units were added to increase the flow capacity of the original plant to 2.0 mgd. Completion of the 1991 plant expansion increased the average-day capacity to 2.5 mgd. In 2007, a study was performed, and the plant's rated capacity was increased to 3.0 mgd. No additional plant components were added at that time.

The City has been operating since 2007 with minimal improvements to the wet-stream process of the WWTP. During this time, the WWTP has operated with a bypass from the influent junction chamber to Beaver Creek during peak flow events. The City is required by the current NPDES Permit to develop a No Feasible Alternative (NFA) review to eliminate the bypass occurrences at the WWTP.

Jones & Henry has completed the NFA report which summarized the operating conditions, the overflow occurrences, and analyzed alternatives for the reduction/elimination of the bypass, and concluded with a recommended alternative.

Based on the NFA recommendation, and through discussions with the City, it became apparent that the expansion of the WWTP would be the selected alternative. The recommended improvements to the WWTP include the following:

- The plant influent channel will be modified to enhance flow into the plant.
- Raw Sewage Pumping – The influent screw pumps will be replaced with a new submersible pump station.
- Headworks will be enhanced with the addition of a new mechanically-cleaned fine screen in the third (bypass) channel. Additionally, the isolation gates will be equipped with motor actuators and connected to the SCADA system for better process control.
- The grit system will not be expanded at this time, so piping from the headworks to the new splitter chamber will be needed to convey partial flow around the grit channel. We will evaluate the need for concrete repairs to the existing tank which is experiencing concrete deterioration.

- A splitter chamber will be added prior to the oxidation ditches to facilitate conveying flow to the existing and new oxidation ditches.
- A third oxidation ditch will be added parallel to the existing two oxidation ditches.
- The existing oxidation ditches will be equipped with new equipment and improvements.
- The two existing clarifier mechanisms will be replaced.
- Two new 75-foot-diameter clarifiers will be added.
- RAS/WAS will be expanded to accommodate the two new clarifiers and increase flow rates.
- UV system will be expanded to accommodate the increased flow rate.
- Electrical controls and SCADA systems will be enhanced to accommodate plant improvements.
- New laboratory and office building.

Project Approach

Our Approach to the planned improvement is to start with the preliminary design. During the preliminary design phase, the alternatives identified in the NFA will be further developed, and we will prepare the following preliminary design document.

- We will work closely with the City to fully define the project with the development of a Design Memorandum. Through the Design Memorandum, the scope of the project will be specified, which includes Process Design Criteria (loadings, sizing, capacities, loadings, pumping rates, etc.). In order to increase the plant average-day flow rating, we will prepare and submit to the Ohio EPA an Antidegradation Addendum to permit the increase in plant capacity. Applicable code requirements and design features, to comply with current codes, will also be included. We will distribute the Design Memorandum to all Team Members on the project, including the City and City staff, to ensure the project is meeting your needs and expectations.
- We will follow up the Design Memorandum with the preliminary design planning and development of estimates. This will help to keep the City informed about project modifications that will affect the project budget.
- We consider the Preliminary Design to be 30% completion of the design. The preliminary design phase will include the following documents:
 - Site survey and development of existing and proposed site plan, showing the location of existing and proposed facilities. A benchtop evaluation for environmental features will be performed to identify any sensitive features that need to be addressed. Additionally, we will evaluate site drainage, site grading, and identification of the 100- and 500-year flood elevation which is critical to the design features of the WWTP. Encroachment into the 100-year floodplain is anticipated, and floodplain relief alternatives will be developed in the preliminary design phase.
 - Develop process flow diagram and hydraulic profile.
 - The overall plan and preliminary section drawings for:
 - Plant influent channel modifications.
 - Raw sewage pumping.
 - New headworks with screening.

- Splitter chamber.
 - New oxidation ditch.
 - Existing and new final clarifiers.
 - RAS/WAS pumping.
 - UV disinfection.
 - Electrical, controls, and SCADA system.
 - New laboratory and office.
- Drawings noted above will generally include overall dimensions, and critical elevations to support the development of the preliminary hydraulic evaluation and hydraulic profile.
 - We will review the preliminary construction sequencing of the work for the implementation of the improvements while maintaining operations of the existing plant.
 - We will provide site topographic survey work through our sub-consultant (Garcia Surveyors).

Funding is critical to this project, and with the development of periodic project estimates, we will manage the project budget with the City. The project budget is reflected in the funding options and ultimately the rate structure of the end user.

We will prepare a facility plan document required for a Water Pollution Control Loan Fund (WPCLF) design loan application. See the attached outline of the facility plan for Ohio EPA funding.

We anticipate meeting with the Ohio EPA to review the NFA and to discuss the planned improvements to the WWTP. The meeting will allow the Ohio EPA to provide feedback on the NFA document and seek their concurrence on the recommended solution. We also hope to understand any other regulatory concerns that need to be addressed in the improvements. We expect to meet with the Ohio EPA near the end of the preliminary design to discuss the preliminary design selections prior to proceeding with the final design.

We plan to meet with the City monthly to keep everyone informed about the project's progress and gain your input and assurance that the City's goals are being met. Meetings will be tailored to specific topics with the Team Members as appropriate.

We will continue to collect current operating data (MOR) to track the information during the preliminary phase of the project.

Project Fees

Our estimated fee for the engineering services to complete the scope of work listed above is as follows:

Description	Estimated Fee
Preliminary Design	\$358,900
Facility Plan per WPCLF Requirements	Included above
Site Topo Survey	\$18,400
Total	\$377,300

Actual charges will be based on time and expenses and will not exceed the estimated fee without approval by the City.

Schedule

We are prepared to commence working within 30 days of authorization to proceed. The following is a tentative schedule for the project.

Description	Schedule
Submit OWDA Planning and Design Loan	TBD
OWDA Planning and Design Load Approved	TBD
City Presentation to Council	April 2025
City Authorization to Proceed	May 2025
Kick-off Meeting	June 2025
Site Topo Survey	June – July 2025
Preliminary Design	June – December 2025
Preliminary Design Review	January 2025
Facility Plan	June – August 2025
Submit Antidegradation Addendum	August 2025
WPCLF Nominations	August 15, 2025

As noted above, a key activity is the completion of the Facility Plan which is required for funding. We plan to have the Facility Plan completed in draft form for the City's review by July 30, 2025. After the City's review, we will finalize the report, and submit the final Facility plan with the DEFA/WPCLF project nomination which is typically due in August of each year.

Funding

We have assumed that the preliminary design and Facility Plan will be funded locally. However, the City may wish to consider an OWDA Planning/Design Loan for this phase of the project. The application is due by the first of each month and will be reviewed and approved by the end of the month. The OWDA Planning/Design Loans are also able to be "rolled" over into the project cost, once the project moves forward to final design and construction. If the City wishes to proceed with a design loan, we are available to assist with obtaining a planning/design loan from OWDA. There is no additional cost to the City for our assistance with obtaining the planning/design loan.

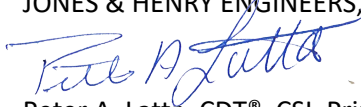
When submitting for a design loan for the preliminary design, the City may wish to include other project costs; such as geotechnical services which may cost \$60,000 to \$75,000. We will review with the City other project costs that might be submitted as part of the design loan.

Once we approach the end of the preliminary design, we will prepare a cost proposal for the final design which will bring the project through bidding. Once the City authorizes the project to proceed to final design a supplemental OWDA design loan will be submitted for the remainder of the design cost.

We appreciate the confidence the City has shown in Jones & Henry in allowing us to provide engineering services on this project. We look forward to working with your Team on the design phase of this important project. Please feel free to contact us with any questions or concerns.

Sincerely,

JONES & HENRY ENGINEERS, LTD.



Peter A. Latta, CDT®, CSI, Principal
Toledo Office Director