STAMP Force Main & Main Pump Station

Basis of Design Report

For The

Genesee County Economic Development Center

June 2020
Updated December 2020
Updated August 2021
Updated October 2021
Updated December 2021 for FM
Updated January 2022 for WWTF
Separated into FM & MPS and WWTF Reports January 2022

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Table of Contents

Figures

Appendices

Acronyms

10SS	Ten States Standards
BOD_5	5-day biochemical oxygen demand
FM	Force main
GCEDC	Genesee County Economic Development Center
GEIS -	Generic Environmental Impact Statement
GPD -	Gallons per day
HDD -	Horizontal directional drilling
HDPE -	High-density polyethylene pipe
ICEAS -	Intermittent Cycle Extended Aeration
MGD -	Million gallons per day
MOU -	Memorandum of Understanding
MPS -	Main pump station
NYSDEC -	New York State Department of Environmental Conservation
PLC -	Programmable Logic Controller
SBR -	Sequential Batch Reactor
SEQR -	State Environmental Quality Review Act
SGIS -	Smart Growth Impact Statement
SHT -	Sludge holding tanks
SPDES -	State Pollutant Discharge Elimination System
STAMP -	Western New York Science & Technology Advanced Manufacturing Park
TDH -	Total dynamic head
TKN -	Kjeldahl nitrogen
TP -	Total phosphorus
TSS -	Total suspended solids
USFWS -	U.S. Fish and Wildlife Service
VFD -	Variable frequency drive
WWTF -	Wastewater Treatment Facility

I. General

A. Background

The Genesee County Industrial Development Agency d/b/a/ the Genesee County Economic Development Center (GCEDC) and its affiliate, the Genesee Gateway Local Development Corporation (GGLDC), have been working for the last several years on the development of the Western New York Science & Technology Advanced Manufacturing Park (STAMP). The Site is planned as an advanced manufacturing campus on approximately 1,262 acres of land in the Town of Alabama, New York located along the west side of New York State Highway 77/63 (north of Judge Road) approximately five miles north of the I-90/New York State Thruway (STAMP Site).

At full build out, STAMP will be a high technology campus with the potential to accommodate over 6 million square feet of advanced technology manufacturing and related uses and to create up to 10,000 jobs. The GCEDC, as lead agency pursuant to the State Environmental Quality Review Act (SEQR), prepared a Generic Environmental Impact Statement (GEIS) and a Smart Growth Impact Statement ("SGIS") that analyzed the potential impacts of STAMP pursuant to the requirements of the SEQR and the State Smart Growth Public Information Policy Act.

In January 2012, the Final GEIS for STAMP was accepted as complete. The FGEIS identified alternatives for wastewater treatment for STAMP and assumed a maximum of 3 million gallons per day (MGD) of sanitary discharge would be needed. The preferred treatment alternative at that time included an onsite Wastewater Treatment Facility (WWTF) with a discharge to either Oak Orchard Creek, Whitney Creek or Tonawanda Creek. Based on feedback received during the GEIS process, several meetings with the neighboring Tonawanda Seneca Nation, and changes in the development of the STAMP Site to focus on the semiconductor industry, new alternatives for treatment were developed.

In August of 2013, a Conceptual Water and Wastewater Alternatives Analysis and Recommendations Report identified potential sanitary sewage conveyance and treatment options for the STAMP project, including 1.0 million gallons per day (MGD) of sanitary sewer effluent and 11.0 MGD of industrial process wastewater. Based on this report, the Village of Medina Wastewater Treatment Facility (Medina WWTF) was selected as the preferred sanitary sewer effluent treatment alternative.

The Tonawanda Seneca Nation voiced concerns with discharging effluent to Whitney Creek which flows into the Tonawanda Creek. The Tonawanda Creek flows through the Tonawanda Seneca Nation and it is an essential part of their cultural heritage. Another concern expressed by the New York State Department of Environmental Conservation (NYSDEC) was discharges to Whitney Creek and how that could affect the hydrology of the Tonawanda Wildlife Management Area. By utilizing the Medina WWTF and connecting to an established collection system, potential effects associated with discharging to Whitney Creek or directly to the Tonawanda Creek could be avoided.

A Memorandum of Understanding (MOU) was developed between the Village of Medina and the GCEDC which outlined the process of analyzing potential discharge routes through the Village, analyzing potential capacity upgrades at the Medina WWTF, and overall project implementation and ownership. However, in May 2017, the MOU with the Village expired so other means of wastewater disposal was deemed necessary. Additionally, by utilizing onsite recycling for the industrial process water, the overall potential total volume of wastewater has decreased significantly from 12 MGD to 6 MGD, causing a change in the proposed treatment methods and discharge location. More importantly, as noted in the 2013 Conceptual Water and Wastewater Alternatives Analysis and Recommendations Report, the need for a potential future large diameter force main "big sewer" for the disposal of process water is no longer needed.

With a reduced wastewater discharge maximum requirement of 6.0 MGD, onsite alternatives were once again considered feasible. Offsite effluent discharge locations were reviewed and analyzed as part of an ongoing effort to minimize environmental impacts and overall project costs for the overall wastewater solution. The review included input from the NYSDEC. Oak Orchard Creek near NYS Route 63, just north of the Iroquois Wildlife Refuge, was determined to be the preferred discharge location.

Several layout options were considered for an onsite WWTF, onsite pump station, and offsite discharge location. The preferred alternative involves an onsite Sequential Batch Reactor (SBR) sanitary sewer treatment facility that will discharge effluent to an onsite wastewater pump station. The WWTF will be designed to be easily expandable at treatment capacity levels of 0.25, 0.50, and 1.0 MGD. The onsite wastewater pump station involves a pump station and force main sewer that will collect, and discharge treated manufacturing process wastewater effluent and treated effluent from the onsite WWTF. The pump station will be designed to be easily expandable at capacity levels of 3.0, 4.5, and 6.0 MGD. The STAMP team is currently working through the permit process with the U.S. Fish and Wildlife Service (USFWS) for the offsite force main and has begun design and permitting efforts for the onsite WWTF.

B. Purpose

A new onsite wastewater treatment facility (WWTF) will be constructed to treat the sanitary wastewater generated by the manufacturing tenants. The process wastewater generated by the tenants will be treated at the tenants' facilities. After treatment, the effluent flow from the onsite WWTF and the treated process wastewaters will be combined at the main pump station (MPS) wet well and then pumped to the discharge location in Oak Orchard Creek, north of Shelby Center in Orleans County through a force main (FM).

This report will outline the design of the FM, MPS, and the onsite WWTF, as well as describe the basis of design for the equipment and treatment processes. All work was designed within the accepted criteria of the Recommended Standards for Wastewater Facilities, 2004 Edition (commonly referred to as the "10 States Standards") and TR-16 Guides for the Design of Wastewater Treatment Works (referred to as "TR-16).

Force Main and Main Pump Station

II. Project Information

A. Site Location

The existing STAMP Site consists of agricultural land located within the Town of Alabama (Town). The location of the proposed STAMP Site including the location of the onsite MPS is shown in Figure 1, and the route of the new FM is shown in Figure 2.

B. Design Flows

The wastewater produced at the STAMP Site will increase incrementally as the STAMP Site is developed. Therefore, the MPS and wet well will be built in phased approach in response to these increasing flows up to the anticipated full-build flow rate of 6.0 MGD.

Flows to the pump stations will consist of a combination of treated effluent along with treated process flows from each development. Initially a temporary pump station will be constructed to accommodate the low flow scenarios (up to 3.0 MGD). Phase 1 is designed to serve flows up to 0.50 MGD, Phase 2 is designed to serve up to 1.0 MGD, Phase 3 is designed to serve up to 3.0 MGD and Phase 4 is designed to serve up to a maximum of 6.0 MGD of combined sanitary treated effluent and treated process water from onsite tenants at STAMP.

The FM has been designed to and will be constructed to convey up to 6.0 MGD to the outfall location.

C. Effluent Discharge Location

Based on estimated construction costs, existing water quality, and input from the NYS DEC and all stakeholders, Oak Orchard Creek was determined to be the preferred body of water for discharge. The proposed discharge location is on the north side of the Hamlet of Shelby Center, along South Gravel Road (NYS Route 63). A map showing the selected route and discharge location is shown in Figure 2.

III. Proposed Project

The 2014 edition of the Recommended Standards for Wastewater Facilities, or Ten States Standards (10SS) and the 2011 Edition of the Guides for the Design of Wastewater Treatment Works, or TR-16, were used as references and guidance for the design of the proposed pump stations and force main.

A. Main Pump Station (MPS)

The Main Pump Station has been designed with a phased approach to accommodate the flow thresholds described above. The pump stations and wet wells for Phase 1 and Phase 2 are considered "temporary pump stations." This means, at the time the combined sanitary effluent and process water exceeds 2.0 MGD, Phase 3 will be constructed. The temporary pump stations and wet wells will then be decommissioned, and the pump station will operate from the new Main Pump Station. At the point in time when the combined sanitary effluent and process water exceeds 3.0 MGD, the pump station capable of an additional 4.0 MGD will be constructed, for a total pumping volume of 6.0 MGD.

At each phase of development, two pumps will be added. Therefore, Phase 1 will operate one (1) pump station with two (2) pumps, one pump running and the second for backup. Phase 2 will add an additional pump station and one additional pump for a total of three (3) pumps, with 2 pumps running and one back up. When the influent flow rate exceeds 1.5 MGD to the temporary pump stations, a fourth pump will be added, three pumps will run and one as backup, to achieve 2.0 MGD from the temporary pump stations. At Phase 3, the new permanent pump station will be constructed, and the temporary pump stations decommissioned. As a result, there will be one (1) pump station and two (2) pumps, with one pump running and 1 backup pump. When Phase 4 is required one (1) new pump station will be added with two (2) additional pumps, totaling four (4) permanent pumps. To achieve 6.0 MGD pumping rate, 3 pumps will run, and 1 pump will be used for backup.

The treated onsite WWTF effluent and the tenant's treated process wastewater will be directed to the wet well of the MPS. The combined flow will be pumped to the outfall location through the FM. The proposed MPS will be constructed on the designated utility parcel located on the western side of Crosby Road, just south of the Main Access Road within the STAMP Site. The wet well and MPS building will be constructed to the east of the onsite WWTF. Figure 3 shows the utility parcel located on the overall STAMP site plan and Figure 4 shows the site plan of the WWTF and MPS within the utility parcel.

The temporary pump stations will utilize a 10-foot diameter precast wet well structure, which has been sized in accordance with Ten State Standards to accommodate sanitary and process water flows from the tenants at the STAMP site. The Phase 1 wet well is sized to operate at 5,300 gallons. Phase 2 will provide additional storage of 5,300 gallons with a total of 10,600 gallons of storage. The temporary wet wells will be connected to equalize flows between the two wet wells.

The permanent MPS will utilize a rectangular concrete structure sized in accordance with Ten States Standards to handle flows from both the WWTF and the treated process water produced from the tenants at the STAMP Site. The full build-out wet well will have a storage volume of approximately 84,000 gallons. The storage will be provided by two 45'x50' tanks, which will be separated by a divider wall in order to isolate flow to specific pumps. The operating range of the wet well will be approximately 2.5 feet vertically. Just outside of the wet well on the downstream side will be isolation valves for each pump.

The wet wells will include ventilation for both intake and exhaust of air using explosion proof equipment. In addition, a vault will be constructed to house a magnetic flow meter to measure flow pumped from the pump station. The ventilation of the full build-out wet well and dry well is designed to meet the requirements as outlined in Ten States Standards.

Wet well sizing calculations can be found in Appendix A.

The controls for the submersible pumps will be housed in a metal sided enclosure. This enclosure will also house the utilities to the pump station including potable water and electric services.

B. Force Main

1. Location

The proposed force main is located between the MPS and the proposed discharge location. The route is along portions of Crosby Road and a proposed access roadway on the STAMP Site, north along Allegany Road (NYS Route 63) in the Town of Alabama, South Gravel Road in the Town of Shelby to the discharge point along Oak Orchard Creek. The discharge point is just north of the Hamlet of Shelby Center in Orleans County. The force main has been sized to accommodate the full buildout design flow of 6.0 MGD of combined sanitary effluent and process water. The system curve was developed based on the installation of 3 different pipe sizes and materials throughout the length of the force main. The installation involves approximately 47,000 linear feet consisting of a combination of 24-inch DR-14 PVC, 24-inch DR-9 HDPE, 20-inch diameter DR-9 HDPE, and 18-inch diameter DR-18 PVC sanitary force main, metering vaults, and maintenance manholes. The force main route is shown on Figure 2.

2. Design

The force main design considered effluent velocity, total dynamic head (TDH), and maximum rated working pressures for multiple diameters of PVC and HDPE sanitary force main. The system curve for the FM can be found in Appendix B at the end of this report.

A combination of pipe sizes and pressure ratings was selected to best accommodate the wide range of flow conditions and reduce pipe friction losses at the future higher flow. The force main was broken up into three conceptual sections, south of the Wildlife Refuge, inside the Wildlife Refuge, and north of the Wildlife Refuge. Given the anticipated soil conditions (moist peat and organics) and to reduce impacts, the force main within the Refuge will be installed by horizontal directional

drilling (HDD) methods using fused high-density polyethylene pipe (HDPE). The wall thickness of HDPE pipe for the expected pressures is significantly greater than PVC pipe.

Pressures in the force main are expected to be highest within the southern section; in this area a 24" DR-14 PVC pipe was selected in order to ensure that the pipe could handle the higher expected head from the pump station. Inside of the Iroquois National Wildlife Refuge, the pipe size will be reduced to a 20" HDPE DR-9 in order to accommodate the directional drilling methods required. On the north side of the refuge, the pipe will be further reduced since the anticipated pressure is lower. Outside of the refuge to the north, directional drilling methods will be minimal, and therefore 18" DR-18 PVC pipe will be used. However, there will be some areas that will require horizontal directional drilling operations, in these areas 20" HDPE DR-9 force main will be installed. At the discharge location, HDPE DR-9 pipe installed by conventional open cut methods will be installed.

To prevent settling of solids, the minimum flow required to maintain 2 ft/s in the 24" DR-14 PVC main (21.89" ID) is 2,346 gallons per minute (GPM). For the initial phases of the STAMP site, the temporary pump station will be operated to provide a flushing velocity through the main for an extended period of time. The temporary wet well has a volume of 0.50 MGD, this provides 3.6 hours of 2,346 gpm flow which will flush the entire length of FM to the outfall. It should also be noted that the proposed flow through the force main will be treated effluent and is not expected to have significant levels of solids or grit to settle in the pipe.

3. Profile

Overall, the force main route from the MPS to the discharge location is generally downhill with multiple high points along the route. The force main exits the MPS at 660.00' and the discharge structure invert in Oak Orchard Creek is approximately 572.00'. Therefore, the discharge elevation of the force main is approximately 88 vertical feet lower than the discharge elevation of pumps in the MPS.

The overall downhill alignment requires consideration of the effects of siphoning and gravity flow, especially for northern most section of the force main. An actuated control valve will be installed on the force main near the discharge point to prevent the force main from draining by gravity and to ensure the pipe remains full.

The PVC force main will be installed at a constant minimum slope of 0.5%, within the open cut areas and where the force main will be installed by HDD method, the HDPE pipe will be drilled at a minimum of 1.0% slope. The force main pipe is purposely installed sloping up and down along the route to provide designated high points for releasing air within the pipe. Air release valves will be installed within maintenance manholes at these high points.

4. Maintenance Manholes

Maintenance manholes will be installed at each high point along the route of the force main between the STAMP Site and the discharge location. Each manhole is a 6'-0" diameter precast concrete structure that contains an internal access ladder, a removable section of pipe, air

release/vacuum breaker valve, and vent piping. Air-release/vacuum breaker valves are required to prevent air from becoming captured inside the force main pipe, which causes flow constrictions and results in poor pumping efficiencies. The removable fitting provides a means to access the force main for flushing, testing and bypass pumping purposes. The fitting consists of a 24" long straight section of ductile iron pipe that can easily be removed for the attachment of other fittings, testing equipment or bypass pumps. Each manhole will also have a 24" diameter cast iron manhole cover placed on top for access to the internal components. The cover will be installed so it is level with the finish grade will be placed over top of the pipe for access.

Since some of these maintenance manholes are in areas where the high-water level would be above the elevation of the air release/vacuum valve, the air release/vacuum breaker piping must extend above grade to ensure the air release valve vents the air properly. For these locations, a 2" diameter galvanized steel vent in the shape of a candy cane that extends approximately 2' above the high-water level will be required. The vent will contain a screen over the end of the pipe to prevent animals from entering the vent piping. The piping will be painted to blend in with the surroundings.

Main line valves will be installed approximately every 1,000 feet along the force main to provide a means to isolate sections of the force main for testing and maintenance purposes.

5. Flow Metering

An 18" magnetic flow meter, located on the discharge piping within the new Main Pump Station building, will monitor the instantaneous and total flows exiting the STAMP Site. Magnetic flow meters will also be installed at both the south and the north end of the Wildlife Refuge to monitor any unexpected loss within the Refuge limits.

6. Main Line Valves

The force main will require numerous main line valves along the route from the STAMP Site to the discharge location. Valves are located at each of the maintenance manholes and both of the metering manholes. The valves provide a means to isolate sections of the force main for testing and maintenance purposes. Each valve requires a cast iron valve box, installed to finish grade, for access to the valve's operating nut. The top of the valve box is approximately 8" in diameter and installed level with the finish grade.

7. Force Main Markers

Fiberglass pipeline markers will be placed at periodic intervals along the entire force main route. Each marker is approximately 4" wide and extends 5' above grade. The markers are used to help identify the location of the underground pipe, especially during the winter months and within heavily vegetated areas. A total of 14 markers will be installed within the Iroquois NWR area.

IV. Conclusion

The offsite sanitary sewer project is an integral and critical part of the necessary infrastructure for the STAMP Site. The project design avoids and minimizes potential environmental impacts. The GCEDC is committed to providing safe and reliable wastewater treatment and conveyance at the STAMP Site. These specific projects will be imperative in achieving these goals.

Figure 1

General Location Map

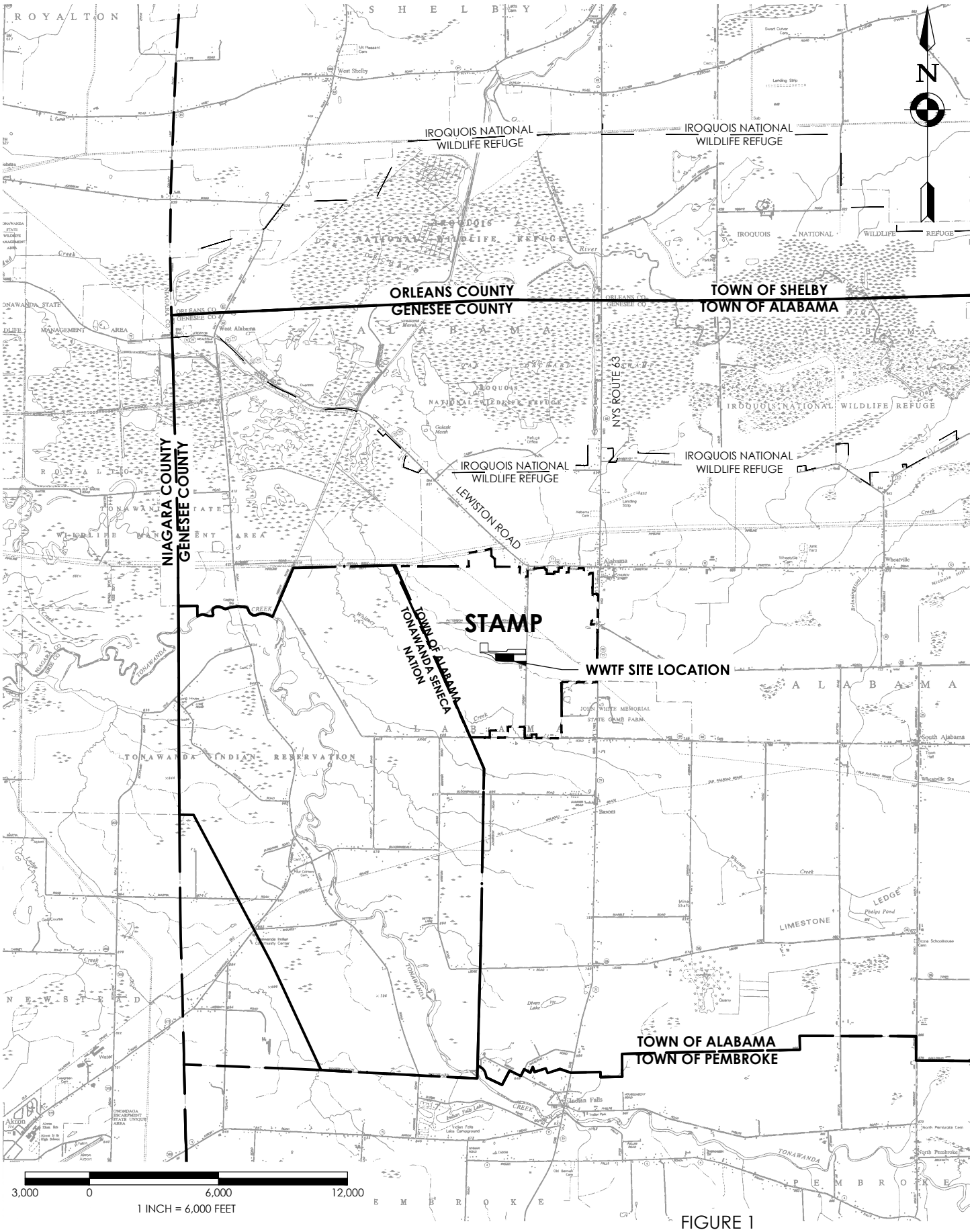

FIGURE 1

205 ST. PAUL STREET, SUITE 500
ROCHESTER, NEW YORK 14604
TEL (800) 274-9000
FAX (585) 232-5836
CPLteam.com
ARCHITECTURE ▪ ENGINEERING ▪ PLANNING

DATE:	4/27/20
DRAWN:	ZLA
CHECKED:	ARK
SCALE:	AS NOTED
PROJ. #:	14822.00

STAMP SITE GENERAL LOCATION MAP

WNY STAMP OFFSITE SEWER

TOWN OF ALABAMA AND TOWN OF SHELBY, NEW YORK STATE

Referenced Drawings: None
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Date last accessed: 5/18/2020 3:33 PM
Date last plotted: 5/21/2020 8:12 AM
Plotted By: Nick Bayer

Figure 2

Proposed FM Route

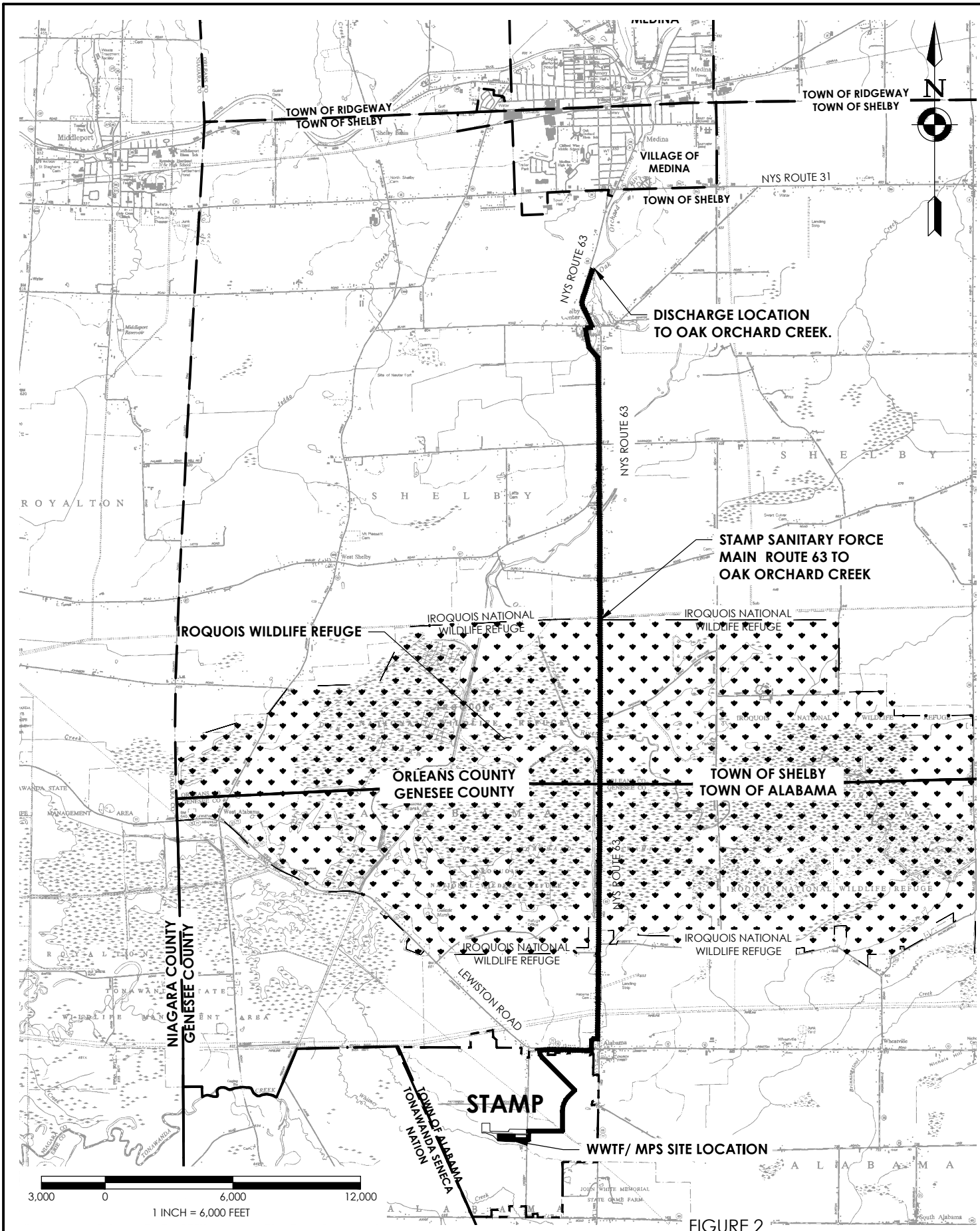

FIGURE 2

205 ST. PAUL STREET, SUITE 500
ROCHESTER, NEW YORK 14604
TEL (800) 274-9000
FAX (585) 232-5836
CPLteam.com
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DATE:	4/27/20
DRAWN:	ZLA
CHECKED:	ARK
SCALE:	AS NOTED
PROJ. #:	14822.00

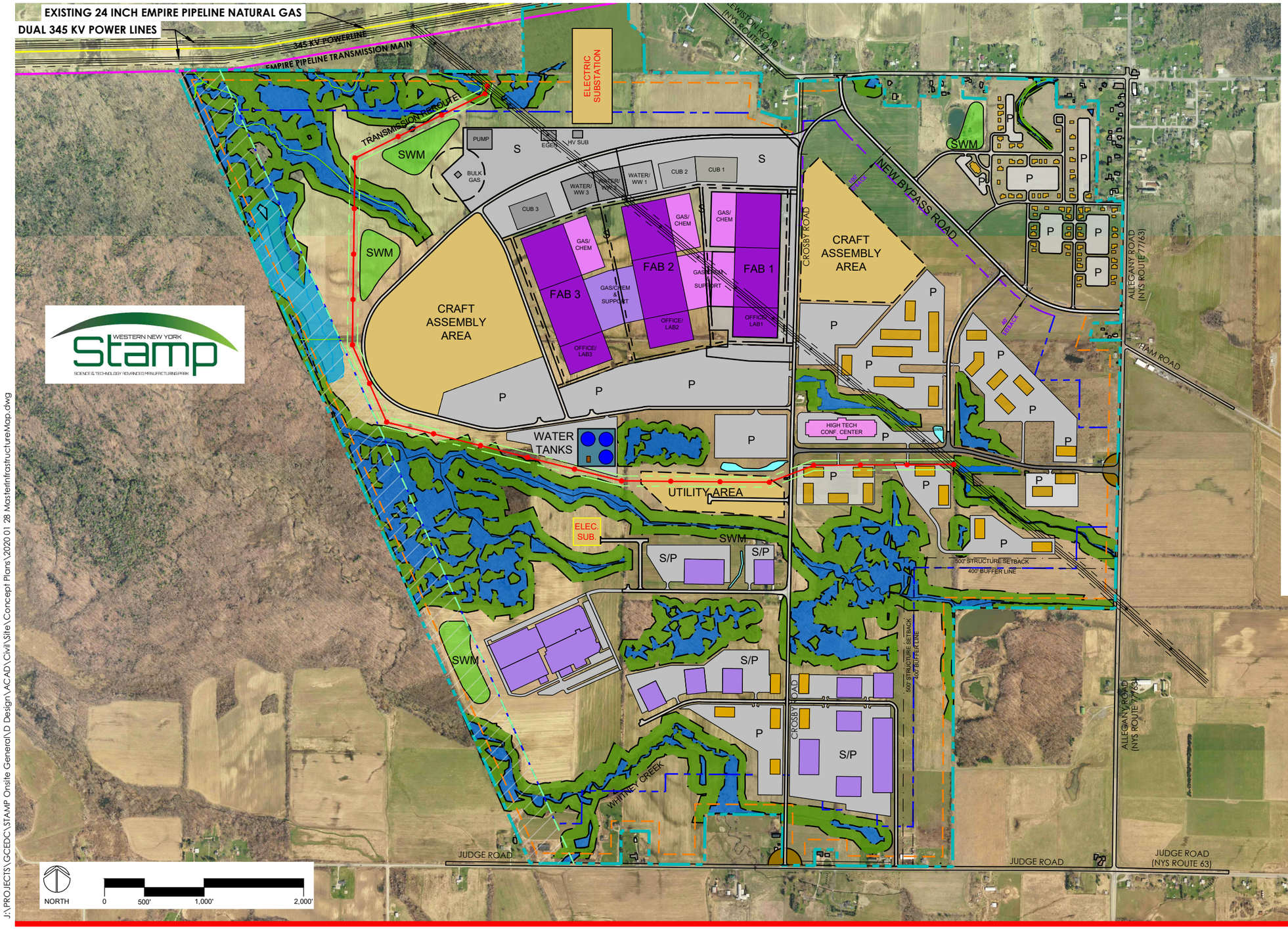
FORCE MAIN GENERAL LOCATION MAP

WNY STAMP OFFSITE SEWER

TOWN OF ALABAMA AND TOWN OF SHELBY, NEW YORK STATE

Figure 3

Overall STAMP Site Plan



LEGEND

- STAMP BOUNDARY
- WESTERN BOUNDARY BUFFER
- PUBLIC ROADS
- DRAINAGE WAYS
- WALKING TRAILS
- SNOWMOBILE TRAILS
- 100' AG RESIDENTIAL BUFFER
- 300' OPEN SPACE BUFFER
- 500' STRUCTURE SETBACK
- ZONING SETBACK
- RELOCATED POWER LINE AND SETBACK
- PROPOSED TRIBUTARY 3 ROUTE
- DELINEATED WETLANDS
- FOREST/REFOREST/WETLANDS
- PROPOSED WETLAND MITIGATION AREA
- STORMWATER MANGEMENT FACILITIES
- EXISTING STORMWATER MANAGEMENT
- STREET TREES
- P S SURFACE PARKING / SERVICE YARDS
- SITE ENTRANCE POINT

FIGURE 3

J:\PROJECTS\GCEDC\STAMP Onsite General\D Design\ACAD\Civil\Site\Concept Plans\2020 01 28 MasterInfrastructureMap.dwg

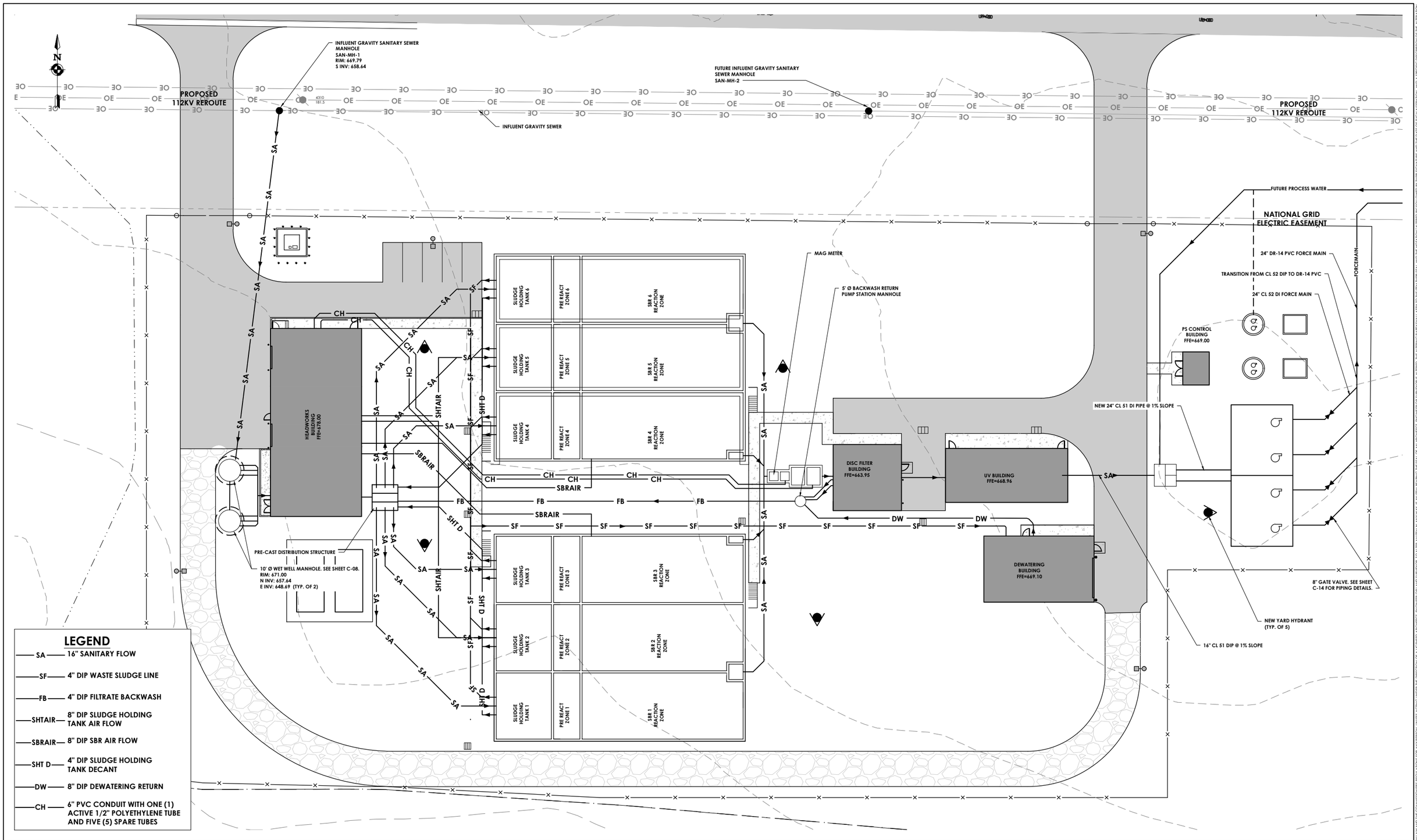
STAMP - MASTER BUILD OUT PLAN

WNY SCIENCE AND TECHNOLOGY ADVANCED MANUFACTURING PARK (STAMP)

JUNE 2020

Figure 4

MPS and WWTF Site Plan



LEGEND

- SA — 16" SANITARY FLOW
- SF — 4" DIP WASTE SLUDGE LINE
- FB — 4" DIP FILTRATE BACKWASH
- SHTAIR — 8" DIP SLUDGE HOLDING TANK AIR FLOW
- SBRAIR — 8" DIP SBR AIR FLOW
- SHT D — 4" DIP SLUDGE HOLDING TANK DECANT
- DW — 8" DIP DEWATERING RETURN
- CH — 6" PVC CONDUIT WITH ONE (1) ACTIVE 1/2" POLYETHYLENE TUBE AND FIVE (5) SPARE TUBES

REVISIONS

NO.	DATE	BY	CHKED	DESCRIPTION

205 ST. PAUL STREET, SUITE 500
ROCHESTER, NEW YORK 14604
TEL (800) 274-9000
FAX (585) 232-5836
CPLteam.com
ARCHITECTURE ▪ ENGINEERING ▪ PLANNING

STATE OF NEW YORK — ANDREW R. [illegible] — 086962 — PROFESSIONAL ENGINEER

GENESEE COUNTY ECONOMIC DEVELOPMENT CENTER (AGENCY SET, NOT FOR CONSTRUCTION)

TOWN OF ALABAMA GENESEE COUNTY NEW YORK STATE

DATE:	04/27/2020
DRAWN:	MCZ
DESIGNED:	NAB
CHECKED:	TAC
SCALE:	1"=20'

STAMP ONSITE WASTEWATER TREATMENT FACILITY

MPS AND WWTF SITE PLAN

PROJECT NUMBER 14822.00

DRAWING NUMBER FIG.-4

Referenced Drawings: None
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Date last plotted: 10/15/2021 8:52 AM
Plotted By: Zach Anderson

Appendix A

Wet Well Calculations

Genesee County Economic Development Center
WNY Science, Technology & Advanced Manufactruing Park (STAMP)
Onsite Temporary Pump Station and Main Pump Station Wet Well Sizing

Temporary PS-Phase 1 (1 Pump Running, 1 Backup) 0.5 MGD
Up to 0.50 MGD

Wet Well Diameter	10	ft
Wet Well Top	669.5	ft
Wet Well Bottom	644	ft
Top of Operating Range	654	ft
Bottom of Operating Range	645	ft
Wet Well Volume	14981	gal
Operating Volume	5287	gal
Influent Flow Rate	347	gpm
Pump Flow Rate	900	gpm
Wet Well Fill Time	15.2	min
Wet Well Empty Time	9.6	min

Temporary PS-Phase 2 (2 Pump Running, 1 Backup) 1 MGD
Up to 1.5 MGD

Wet Well Diameter	10	ft
Wet Well Top	669.5	ft
Wet Well Bottom	644	ft
Top of Operating Range	654	ft
Bottom of Operating Range	645	ft
Wet Well Volume	29961	gal
Operating Volume	10575	gal
Influent Flow Rate	694	gpm
Pump Flow Rate	1388	gpm
Wet Well Fill Time	15.2	min
Wet Well Empty Time	15.2	min

Temporary PS-Phase 2a (3 Pump Running, 1 Backup) 1.5 MGD
Up to 2.0 MGD

Wet Well Diameter	10	ft
Wet Well Top	669.5	ft
Wet Well Bottom	644	ft
Top of Operating Range	654	ft
Bottom of Operating Range	645	ft
Wet Well Volume	29961	gal
Operating Volume	10575	gal
Influent Flow Rate	1041	gpm
Pump Flow Rate	1735	gpm
Wet Well Fill Time	10.2	min
Wet Well Empty Time	15.2	min

Permanent PS-Phase 3 (1 Pump Running, 1 Backup) 3.0 MGD
Up to 4.0 MGD

Wet Well Area	2250	ft
Wet Well Top	669	ft
Wet Well Bottom	652	ft
Top of Operating Range	658	ft
Bottom of Operating Range	655.5	ft
Wet Well Volume	286110	gal
Operating Volume	42075	gal
Influent Flow Rate	2082	gpm
Pump Flow Rate	2500	gpm
Wet Well Fill Time	20.2	min
Wet Well Empty Time	100.7	min

Permanent PS-Phase 4 (3 Pump Running, 1 Backup) 6.0 MGD
Up to 6.0 MGD

Wet Well Area	2250	ft
Wet Well Top	669	ft
Wet Well Bottom	652	ft
Top of Operating Range	658	ft
Bottom of Operating Range	655.5	ft
Wet Well Volume	572220	gal
Operating Volume	84150	gal
Influent Flow Rate	4164	gpm
Pump Flow Rate	4580	gpm
Wet Well Fill Time	20.2	min
Wet Well Empty Time	202.3	min

Note:

1. For the temporary pump station Phase 2 and Phase 3, each additional phase will be in addtion to the previous phases.
2. When the stanitary and process water flows exceed 2.0 MGD the permanent Main Pump Station will be needed.
3. When the Main Pump Station is needed, the temporary pump station will be decomissioned.

Appendix B

FM System Curve

GCEDC

STAMP OFFSITE SEWER