

WARWICK SEWER AUTHORITY

Quarterly Report to City Council

October 1, 2018

WSA Budget

See attached MUNIS budget report for FY19 to date as of August 31st (approximately 17% of fiscal year complete). In summary:

- Revenues -- \$3,812,356 (18%)
- Expenses -- \$2,223,789 (10.5%)

Major WSA Board Actions in Last Quarter

At the July meeting, the WSA Board of Directors awarded Bid #2019-064 for emergency/as-needed pumping services to Michael Perri & Sons of Warwick. The Board approved an extended preventative and routine maintenance plan for the four aeration blowers (critical process equipment) with the original manufacturer APGN, Inc. in the amount of \$8,250. The Board authorized the execution of an easement agreement with the State of Rhode Island for construction of sewers in the Washington Secondary Railroad right-of-way. Finally, the Board approved a sewer use abatement for a documented water leak at a State of Rhode Island owned property located at 591 West Shore Road in the amount of \$2,113.56.

The Board met twice during the month of August. There was a special meeting on August 14th to award Contract 69A (East Natick Phase 3/O'Donnell Hill sewer extension). The Board voted to award the bid to low bidder D'Ambra Construction Co., Inc. of Coventry, RI, in the amount of \$1,886,151.75.

The Board held its regular monthly meeting on August 30th when it welcomed new board member Thomas H. Chadronet. At this meeting, the Board approved emergency spending to repair the major interceptor which runs through the Department of Public Works yard to the WSA's Cedar Swamp pumping station. The collapse of this pipe was discovered on Sunday, August 26th. The WSA brought in C.B. Utility Co., Inc. to stabilize the site and make the emergency repairs. The Board approved another emergency purchase to repair pumps at the Cedar Swamp pumping station which failed on August 19th. The Board authorized \$7,890 for Universal EMS, Inc. to repair one of the pumps. The second pump is in the process of being diagnosed by the authorized service provider. The WSA staff now believes the pump damages were the early warning of the pipe failure. The WSA is hopeful that insurance may cover the cost for by-pass pumping and repairs to the pump station.

Also at the August meeting, the Board approved \$10,725 for the purchase of a new "push" camera from J.F. McDermott Corporation to inspect smaller diameter pipes and, especially, service connections. The Board passed a resolution giving the Executive Director authority to enter into easement agreements with two property owners on Jambray Court to facilitate the O'Donnell Hill sewer construction project. Finally, the Board approved a Temporary Amnesty Program as recommended by the Finance Committee, for customers who self-report by

October 1, 2018

December 31st that their properties are connected to sewers but not being billed. The program provides financial incentives for customers to self-report.

The WSA Finance Committee continues to meet on a monthly basis prior to the Board meetings. The Finance Committee is currently working on determining an appropriate Sewer Access Charge for connection to the sewer system paid for entirely using private funds. The Committee has also charged WSA staff with the development of a Master Maintenance Plan for the Collection System.

Treatment Facility Operations and Maintenance (O & M)

Over the last quarter, daily flows to the treatment facility averaged 4.5 million gallons per day (facility design capacity is 7.7 mgd), down considerably since the spring quarter. Average monthly discharges for all pollutants complied with permit limits, including better than 98% removal efficiency for conventional pollutants such as suspended solids and biological oxygen demand.

The O&M staff continues to work on several engineering studies including improvements in solids handling and changes necessary to comply with WSA's new discharge permit which is expected to be released for public comment very soon. In August, O&M staff visited another treatment facility which uses screw press technology for dewatering its sludge. This technology has the potential to save a lot of money through reduced electrical consumption and reductions in sludge production and associated disposal costs.

Contract 97 Flood Hardening Project

The most recent progress report has been included with this report.

Sewer Extension Planning & Construction (projects included in \$33 million bond authorization)

Governor Francis Farms Phase III (Contract 85 B) – The most recent progress report has been included with this report. Also included is an updated construction schedule.

East Natick Phase III/O'Donnell Hill (Contract 69 A) – The most recent progress report has been included with this report.

Northwest Gorton Pond (Contract 88) – The most recent progress report has been included with this report.

Bayside (Contracts 86B) – The most recent progress report has been included with this report.

See attached Construction Project Data Table for a summary of information related to all projects being paid for using revenue bond authorization.

Warwick Sewer Authority FY19 Budget Report

Fund 80 - Sewer Operations, Maintenance, and Administration

As of August 31, 2018 (16.7% of fiscal year complete)

	FY19 Budget	Expensed/ Received as of August 31	% Expended/ Collected
Personnel			
Sick Time & Other Leave	\$0	\$3,783	0.00%
Salaries	\$2,304,299	\$211,974	9.20%
Overtime	\$80,000	\$10,992	13.74%
Overtime Storm/Snow	\$10,000	\$0	0.00%
Easement Overtime	\$15,000	\$2,197	14.65%
Temporary Services	\$7,000	\$0	0.00%
Fringe Benefits	\$1,047,611	\$0	0.00%
Contractual Obligation	\$65,000	\$0	0.00%
Commodities			
Office Supplies & Equipment	\$9,500	\$493	5.19%
Print, Bind & Reproduction	\$24,700	\$122	0.49%
Advertising	\$4,000	\$0	0.00%
Postage	\$37,475	\$672	1.79%
Laboratory Supplies	\$24,000	\$1,528	6.37%
Gasoline	\$40,000	\$0	0.00%
Natural Gas	\$48,000	\$1,340	2.79%
Electricity	\$790,000	\$54,142	6.85%
Supplies - Computer	\$2,000	\$0	0.00%
Supplies - Safety Equipment	\$11,100	\$0	0.00%
Chemicals - Ferric Chloride	\$10,000	\$0	0.00%
Chemicals - Polymer	\$76,000	\$17,128	22.54%
Chemicals - Chlorine	\$57,000	\$6,501	11.41%
Chemicals - Dechlor	\$35,000	\$2,898	8.28%
Chemicals - Odor Control	\$150,000	\$17,943	11.96%
Chemicals - Alum	\$93,000	\$24,221	26.04%
Chemicals - Caustic	\$245,000	\$35,839	14.63%
Clothing	\$9,350	\$392	4.19%
Maintenance Materials	\$125,000	\$6,447	5.16%
Small Tools	\$3,000	\$450	15.00%
Deduct Meters	\$5,000	\$0	0.00%
Grinder Pumps	\$160,000	\$0	0.00%
Easement/CMOM Commodities	\$20,500	\$0	0.00%
Services			
Travel	\$1,000	\$0	0.00%
Training & Education	\$12,000	\$950	7.92%
Telephone	\$19,000	\$2,482	13.06%
Water Usage	\$15,000	\$0	0.00%
Equipment Repair	\$80,000	\$703	0.88%
Tax Sale	\$125,000	\$0	0.00%
Insurance	\$237,283	\$0	0.00%

	FY19 Budget	Expensed/ Received as of August 31	% Expended/ Collected
Auto Maintenance	\$24,000	\$0	0.00%
Service Contracts	\$91,008	\$22,716	24.96%
Insured Accidents	\$0	\$0	0.00%
Professional Services	\$76,000	\$2,292	3.02%
Construction Services	\$155,000	\$24,184	15.60%
Sludge Removal	\$1,057,240	\$94,461	8.93%
Administration	\$111,716	\$0	0.00%
DEM - User Fees & Permits	\$3,370	\$0	0.00%
Testing & Lab Samples	\$50,400	\$30	0.06%
Engineering Services	\$73,000	\$1,960	2.68%
Sewer Connection Grants	\$41,100	\$0	0.00%
Public Outreach	\$4,000	\$90	2.25%
Services - Other	\$93,960	\$3,567	3.80%
<i>Other Expenditures</i>			
West Warwick WWTF	\$0	\$0	0.00%
<i>Debt Service</i>			
Paying Agent Fees	\$14,150	\$1,100	7.77%
Renew & Replacement	\$10,000	\$0	0.00%
Debt Service	\$11,249,893	\$1,528,743	13.59%
Debt Interest	\$2,062,635	\$141,449	6.86%
Sewer Connection Loan Default	\$5,000	\$0	0.00%
Infrastructure Replacement	\$0	\$0	0.00%
Misc Capital Expenditures	\$0	\$0	0.00%
<i>Total Expenses</i>	\$21,120,290	\$2,223,789	10.53%

		Expensed/ Received as of August 31	% Expended/ Collected
Revenues	FY19 Budget		
Industrial Pretreatment Fees	\$390,000	\$58,129	14.90%
Sewer Usage Fees	\$11,787,123	\$2,782,818	23.61%
Capital Account/Meters	\$5,000	\$450	0.00%
Energy Buyback Revenue	\$35,678	\$701	1.96%
Pretreatment Application Fees	\$6,000	\$1,100	18.33%
Sewer Service Charge	\$4,291,842	\$940,831	21.92%
Engineering Review Fees	\$6,600	\$900	13.64%
Sewer Assessment Fees	\$4,136,447	\$0	0.00%
Septage Dumping Fees	\$34,000	\$0	0.00%
Sewer Insurance	\$0	\$0	0.00%
Lease Income	\$41,100	\$0	0.00%
Pretreatment Fines	\$0	\$50	0.00%
Miscellaneous Income	\$4,000	\$0	0.00%
Sewer Connection Permits	\$45,000	\$7,950	17.67%
Reimburse - Grinder Pumps	\$25,000	\$0	0.00%
Sewer Tax Title Revenue	\$0	\$0	0.00%
Interest on Investments	\$6,000	\$0	0.00%
Interest Income	\$300,000	\$18,927	6.31%
SLA Administrative Fee	\$4,000	\$500	12.50%
SLA Inspection Fee	\$2,500	\$0	0.00%
Total Revenues	\$21,120,290	\$3,812,356	18.05%

NOTES:

1. **Depreciation expense** of approximately \$1.5 Million will be added by auditors when preparing the Sewer Fund balance sheet.
2. Current balance in **Renewal & Replacement Fund** is approximately \$1,098,000 (with an additional \$2,030,000 due from Fund 80 and \$159,000 due from billings).
3. **Debt Service Reserve Funds** (created with a portion of the proceeds from all revenue bond loans) currently totals \$5,800,000 to be used for final years of loan payments (starting in about 6 years).
4. There are other smaller Funds established and maintained for various purposes including Inflow & Infiltration Fund (approximately \$86,000), Sewer Line Agency Fund (revolving account for miscellaneous sewer line extensions paid for by private developers and property owners, about \$250,000).

Warwick Sewer Authority
125 Arthur Devine Blvd
Warwick, RI 02888



PROJECT STATUS REPORT

PROJECT SUMMARY

REPORT DATE	PROJECT NAME	PREPARED BY
9/12/2018	Contract 97	Earl Bond

STATUS SUMMARY

Natick 1 pump station work is almost complete. The remaining work is to relocate the electrical service, install the flood barrier and a check valve in the floor drain. Work continues and is nearing completion.

Work at Knight Street that remains is to raise the cupolas on the roof and seal. The Primary electrical service requires relocation in order to complete this work.

Natick 2 work is scheduled to begin at the end of September. We have walked the bypass route for the station and developed a plan to lay the pipe. Equipment is still being ordered.

There are 4 change orders being processed at this time which are tied to all the pump stations. These will be addressed at the October board meeting and we anticipate a full project completion by 30 November 2018.

Project Overview

TASK	% DONE	DUE DATE	DRIVER	NOTES
Natick 1	75	12/31/2018	Federal Funding	
Natick 2	0	12/31/2018	Federal Funding	
Knight St.	85	12/31/2018	Federal Funding	

BUDGET OVERVIEW

CATEGORY	BUDGET	INCURRED	REMAINING	TOTAL
Natick 1	\$70,000.00	2,355.00		
Natick 2	\$185,000.00	4,200.00		
Knight St	\$130,000.00	72,226.50		
Scada, N Grid, Permits Allowance	21,500.00			
DewBerry		77,243.03		

CONCLUSIONS/RECOMMENDATIONS/NOTES

Change orders summary:

- Knight St. Second manhole for bypass required due to lack of access to fitting with hose installed
- Knight St. Relocation of Primary electrical service from over the building roof to the side of the building. This is required for safety and building code. Service conductors required to be a minimum of 3 feet from structures.
- Natick 1 Electrical service to be moved to the side of the building from original plan of locating inside
- Natick 2 2nd Electrical enclosure required for all equipment and redesign of platform to accommodate 2 enclosures

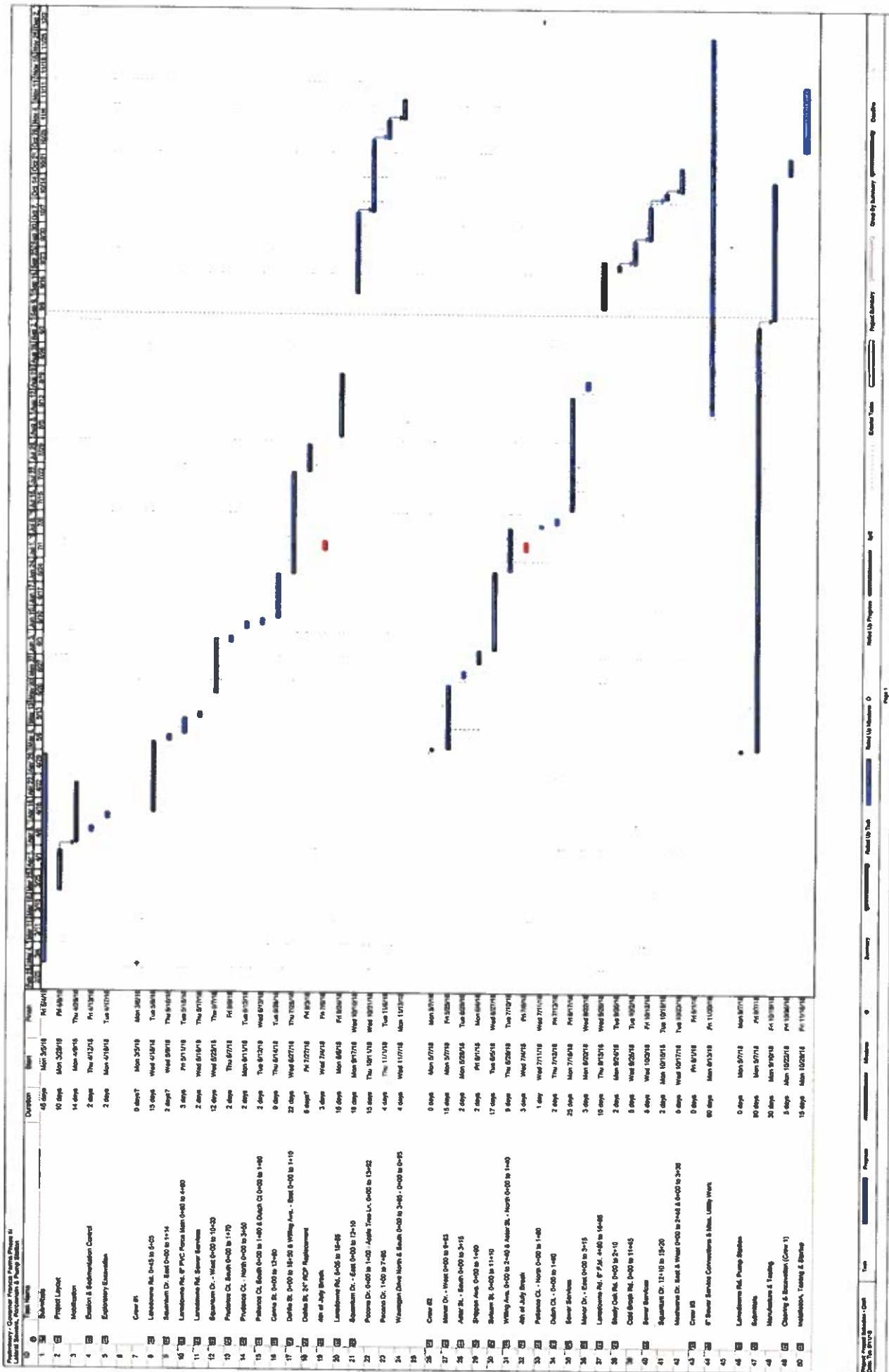
PROGRESS REPORT
GOVERNOR FRANCIS PHASE III

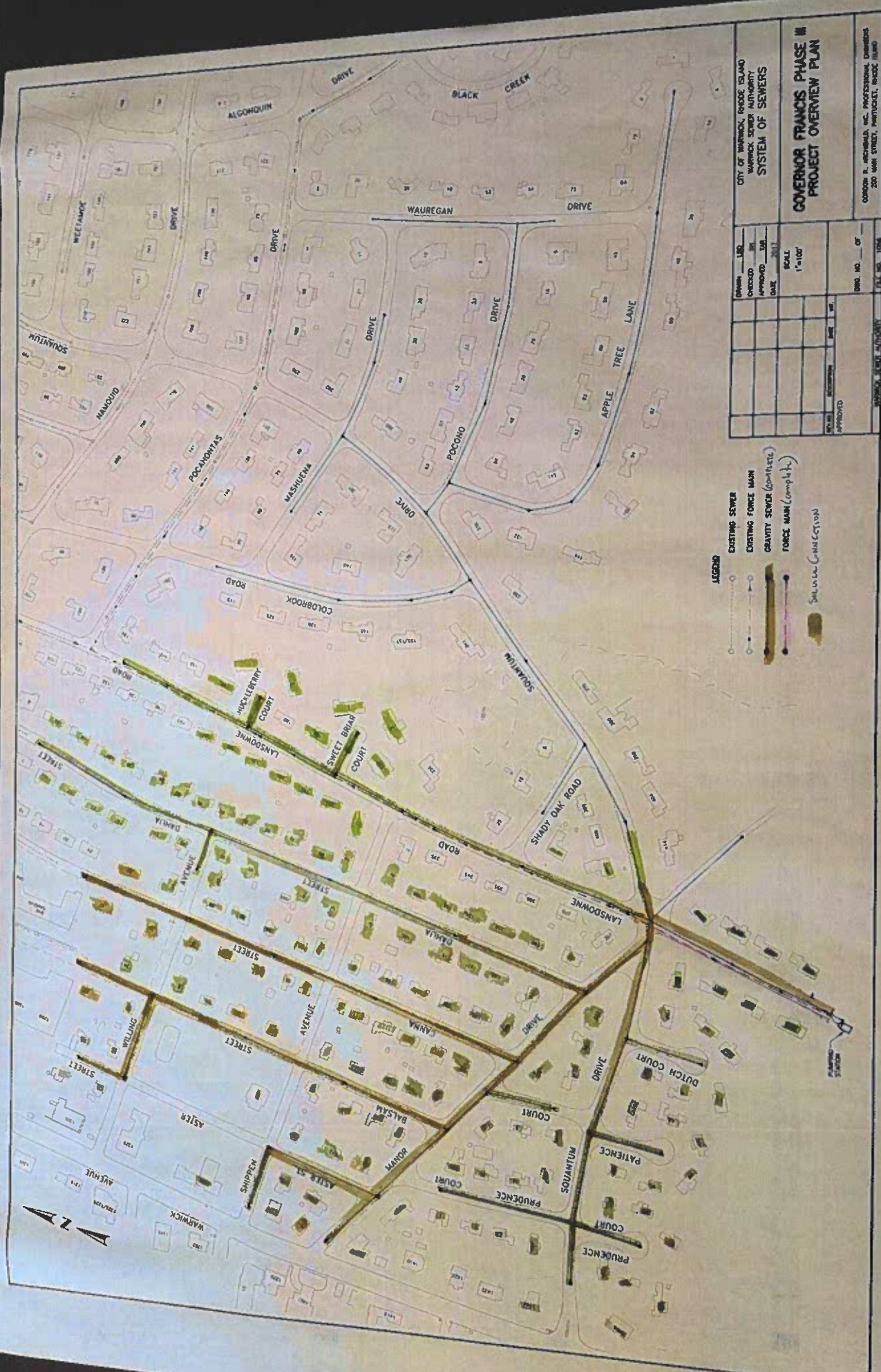
Summary of Work:

1. GRA continues to coordinate and meet with residents to assist with completing sewer service connection cards.
2. GRA submitted documents for a building permit for the pumpstation with the City Building Commission.
3. GRA continues coordination with National Grid on the pump station electrical service. An estimate was provided by National Grid in the amount of \$127,648.09. WSA is coordinating with National Grid representatives to qualify costs. There is concern that WSA may be paying for some system improvements not fully related to the service.
4. GRA continues coordination with National Grid on the gas main service estimate from National Grid in the amount of \$51,695. WSA is coordination with National Grid representatives to qualify costs. The line will be extended down Lansdowne Street and will provide National Grid the potential for 8 new customers. WSA believes National Grid should consider this is in their construction cost. In addition, the overall cost is excessive.
5. WSA, GRA, C.B. Utility and Warwick School Department continue coordinating restoration for the trees removed at the John Francis Brown School.
6. Construction meetings were held on August 30, 2018 and September 13, 2018.
7. Rock encountered on Squantum Drive has been removed. GRA received change order in the amount of \$265,194.56 on September 13, 2018. C.B Utility has made a claim of unforeseen conditions for rock removal. GRA is reviewing the request.
8. Plan indicating completed work is attached.
9. Contractor's Construction Schedule is attached.

Summary of Major Quantities / Completion (Period Ending August 31, 2018)

ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT	PREVIOUS QUANTITY	MONTHLY QUANTITY	QUANTITY TO DATE	PERCENT COMPLETE
6" PVC Service Connections	6,000.00	Linear Foot	2462	809.00	3,071.00	51.18%
6" Ductile Iron Service Connections	750.00	Linear Foot	0	-	-	0.00%
8" PVC Gravity Sewer	15155	Linear Foot	8199	1,655.00	9,854.00	65.02%
8" DI Gravity Sewer	500.00	Linear Foot	0	-	-	0.00%
12" PVC Gravity Sewer	520.00	Linear Foot	461	-	461.00	88.65%
6" PVC Force Main	2,125.00	Linear Foot	420	-	420.00	19.76%
6" Ductile Iron Force Main	225.00	Linear Foot	0	-	-	0.00%
8" x 6" PVC Y-Branch	259.00	Each	130	27.00	157.00	60.62%
8" x 6" DI Y-Branch	5.00	Each	0	-	-	0.00%
12" x 6" PVC Y-Branch	6.00	Each	7	-	7.00	116.67%
Precast Concrete Manholes	70.00	Each	40	5.00	45.00	64.29%





- LEGEND**
- EXISTING SEWER
 - EXISTING FORCE MAIN
 - EXISTING GRAVITY SEWER
 - PROPOSED FORCE MAIN
 - PROPOSED GRAVITY SEWER
 - PROPOSED FORCE MAIN (CONFLICT)
 - PROPOSED GRAVITY SEWER (CONFLICT)
 - PROPOSED FORCE MAIN (CONFLICT) (CONFLICT)
 - PROPOSED GRAVITY SEWER (CONFLICT) (CONFLICT)

CITY OF WARWICK, RHODE ISLAND WARWICK SEWER AUTHORITY SYSTEM OF SEWERS			
DESIGNED BY	DATE	SCALE	1"=100'
APPROVED BY	DATE	SCALE	1"=100'
DESIGNED BY	DATE	SCALE	1"=100'
APPROVED BY	DATE	SCALE	1"=100'
DESIGNED BY	DATE	SCALE	1"=100'
APPROVED BY	DATE	SCALE	1"=100'
DESIGNED BY	DATE	SCALE	1"=100'
APPROVED BY	DATE	SCALE	1"=100'

**GOVERNOR FRANCIS PHASE III
PROJECT OVERVIEW PLAN**

OSCAR R. ARCHIBALD, INC. PROFESSIONAL ENGINEERS
200 MAIN STREET, PATTUCKET, RHODE ISLAND



PROGRESS REPORT
EAST NATICK – PHASE 3 (O'DONNELL HILL)

DATE SEPTEMBER 8, 2018
PROJECT NUMBER 04635.00
INVOICE NUMBER 111264

PROFESSIONAL SERVICES FROM AUGUST 12, 2018 TO SEPTEMBER 8, 2018

PROJECT SUMMARY:

FILE REVIEW

Completed

BASE PLAN MODIFICATIONS

Completed

DESIGN PLAN, SPECS & EST. MOD.

Completed

ADDITIONAL SERVICES BEYOND SCOPE OF CONTRACT

No work this period

CONSTRUCTION BIDDING SERVICES

Review of Pipe Depth Revisions

Shop Drawing Review & Submittal to Contractor

Preconstruction Meeting.

Review of Plans Prior to Construction by Inspector.

WETLANDS BIOLOGIST

Completed

PRINTING

No work this period

CONTRACT AMENDMENT #1

Completed

CONTRACT AMENDMENT #2

Began Construction Administration Services.

CONTRACT AMENDMENT #3

No work this period



PROGRESS REPORT
SANITARY SEWER IMPROVEMENTS – NORTHWEST GORTON POND

DATE SEPTEMBER 8, 2018
PROJECT NUMBER 6342.01
INVOICE NUMBER 111266

PROFESSIONAL SERVICES FROM AUGUST 12, 2018 TO SEPTEMBER 8, 2018

PROJECT SUMMARY:

FINAL DESIGN – PLAN PREPARATION - Completed

FINAL DESIGN – SPECS & QUANTITIES - Completed
Completed this Period.

FINAL DESIGN – PUMP STATION & FORCE MAIN PLANS - Completed
Completed this Period.

FINAL DESIGN REIMBURSABLES

CONTRACT AMENDMENT #4

FILE REVIEW AND PROJECT RESTART - Completed

LAND SURVEYS – Completed

AERIAL MAPPING - Completed

PLAN PREPARATION OF COLLECTION SYSTEM - Completed

CONTRACT SPECS, QUANTITIES & ESTIMATE - Completed

(2) PUMP STATION AND FORCE MAIN DESIGN PLANS / DETAILS - Completed

CONTRACT AMENDMENT #5

WETLANDS FLAGGING AND FIELD SURVEY – No Work This Period.

REDESIGN OF PUMP STATIONS – Pump Station 1 – Look into New Locations

PERMITTING – No Work This Period

RIGHT OF WAY PLANS AND EASEMENTS – No Work This Period

CONSTRUCTION BIDDING SERVICES – No Work this Period



Gordon R. Archibald, Inc.
Civil and Environmental Engineers

September 17, 2018

PROGRESS REPORT
BAYSIDE SEWERS PROJECT

Work this Period:

1. The subsurface geotechnical report is being reviewed by the trenchless technology consultant.
2. Environment One Corporation performed a hydraulic analysis of the proposed system. GRA is reviewing the results; no issues were found with the design.
3. GRA continues development of the project contract specifications.
4. GRA continues to prepare a list of issues/requirements for service connection easements. These will be provided to WSA's legal counsel.
5. Field survey is 95% complete in obtaining remaining archaeological pits and some remaining drainage utility inverts.

WSA Construction Project Data Table as of 9-30-18

PROJECT STATUS

Projects Included in \$33 Million Revenue Bond Authorization

Project Name	Design Completion Date	Design Percent Complete	Design Certificate of Approval	Construction Certificate of Approval	Order of Approval	Construction Completion Date	Construction Percent Complete
East Natick III (O'Donnell Hill)	06/01/18	100%	N/A	5/16/16	N/A		
Northwest Gorton Pond Phase I	Still Planning for 2019	85%	N/A				
Northwest Gorton Pond Phase II	Planning for 2020	30%	N/A				
Governor Francis III	04/01/18	100%	8/4/2008	12/27/2016	9/19/2016		60%
Bayside 86A-1 (Tidewater Interceptor)	05/01/15	100%	5/16/2006	7/7/2015	7/7/2015	09/04/15	100%
Bayside 86B (Tidewater Interceptor and Lateral Pressure Sewers)	Still Planning for 2019	60%	5/16/2006				

Projects Included in \$23 Million Revenue Bond Authorization

Project Name	Design Completion Date	Design Percent Complete	Design Certificate of Approval	Construction Certificate of Approval	Order of Approval	Construction Completion Date	Construction Percent Complete
AWT Phosphorus Upgrade	12/31/13	100%	N/A	3/14/2014	4/3/2013	03/30/17	100%
AWT Levee Improvement	12/31/13	100%	N/A	3/14/2014	4/3/2013	08/30/17	100%
Primary Clarifier Rebuild	12/01/16	100%	N/A	3/7/2017	N/A		90%

PROJECT EXPENSES**Projects Included in \$33 Million Revenue Bond Authorization**

Project Name	Design Expenditures	Land Acquisition	Construction Expenditures	Inspection Expenditures	Traffic Details Expenditures	Miscellaneous Expenditures	Expenditures to Date	RI Infrastructure Bank Payments	To be Reimbursed by FEMA
East Natick III (O'Donnell Hill)	\$50,741.71	\$0.00	\$0.00	\$0.00	\$0.00	\$4,208.00	\$54,949.71	\$30,789.71	N/A
Northwest Gorton Pond	\$282,823.33	\$0.00	\$0.00	\$0.00	\$1,427.43	\$1,800.00	\$286,050.76	\$0.00	N/A
Northwest Gorton Pond II	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,500.00	\$1,500.00	\$0.00	N/A
Governor Francis III	\$262,578.77	\$70,000.00	\$1,278,572.14	\$92,142.60	\$39,524.99	\$6,472.41	\$1,749,290.91	\$1,548,385.03	N/A
Bayside 86A-1 (Tidewater Interceptor)	\$11,511.25	N/A	\$302,841.88	\$26,793.73	\$1,105.19	\$0.00	\$342,252.05	\$330,740.80	N/A
Bayside 86B (Tidewater Interceptor and Lateral Pressure Sewers)	\$1,691,491.76	N/A	\$0.00	\$0.00	\$64,911.79	\$130,910.34	\$1,887,313.89	\$1,887,313.89	N/A

Projects Included in \$23 Million Revenue Bond Authorization

Project Name	Design Expenditures	Land Acquisition	Construction Expenditures	Inspection Expenditures	Traffic Details Expenditures	Miscellaneous Expenditures	Expenditures to Date	RI Infrastructure Bank Payments	To be Reimbursed by FEMA
AWT Phosphorus Upgrade	\$749,457.85	N/A	\$12,578,858.69	\$1,615,852.82	\$0.00	\$448,190.96	\$15,392,360.32	\$15,239,298.35	N/A
AWT Levee Improvement	\$147,312.96	N/A	\$4,563,962.91	\$411,796.10	\$0.00	\$0.00	\$4,975,758.71	\$0.00	\$3,600,000.00
Primary Clarifier Rebuild	\$42,243.44	N/A	\$149,715.00	\$68,304.62	\$0.00	\$30,485.15	\$290,748.21	\$290,748.21	N/A

Cost of Issuance and Debt Service Reserve for all borrowing: \$2,043,432.00

Total Bond Authorization Utilized: \$21,079,959.78

Total Bond Authorization Remaining (of \$56 Million): \$34,920,040.22