



Semiannual CIP Status Report

July 2020 – December 2020

T&E Committee – Item No. d.1

April 5, 2021

Mariana Chavez-Vazquez, Deputy Director, ESD
David Ohlson, Division Manager ESD
Norman Mascarinas, Principal Engineer, DPW



**San José-
Santa Clara
Regional
Wastewater
Facility**



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TPAC Meeting – Item No. 5.A

April 8, 2021

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**San José-
Santa Clara
Regional
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Program Overview: July – December 2020

- \$1.4 billion, 10-year CIP (2014-2024)
- 2020-2021 Budget: \$562 million
- 19 active projects totaling ~\$980 million



Significant Program Activities

■ Biosolids Disposition Procurement Strategy

- Began procurement and environmental review process for the short-term contracts.

■ Construction Management Strategy

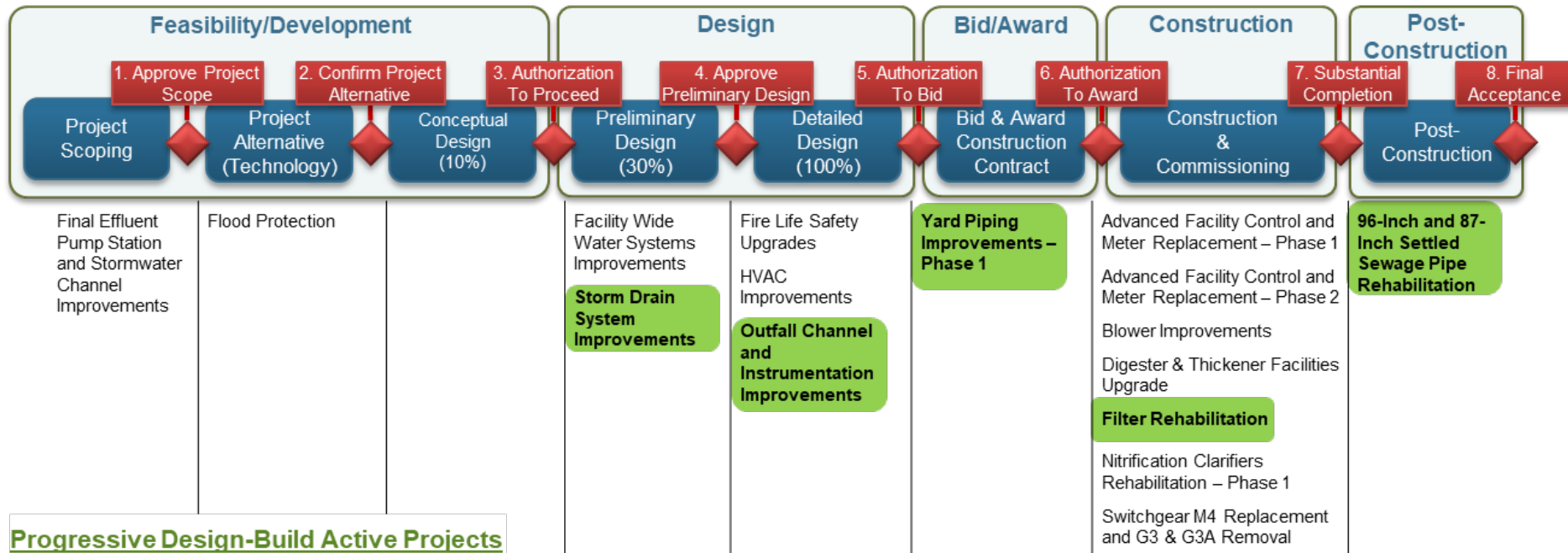
- Ten projects under construction
- City Council approved consultant agreements to supplement City construction management resources
 - » *Construction management services (Four firms)*
 - » *Construction scheduling and cost control services (Two firms)*

■ Programmatic Studies

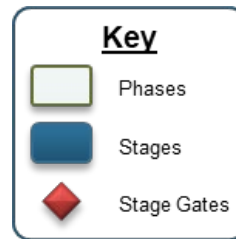
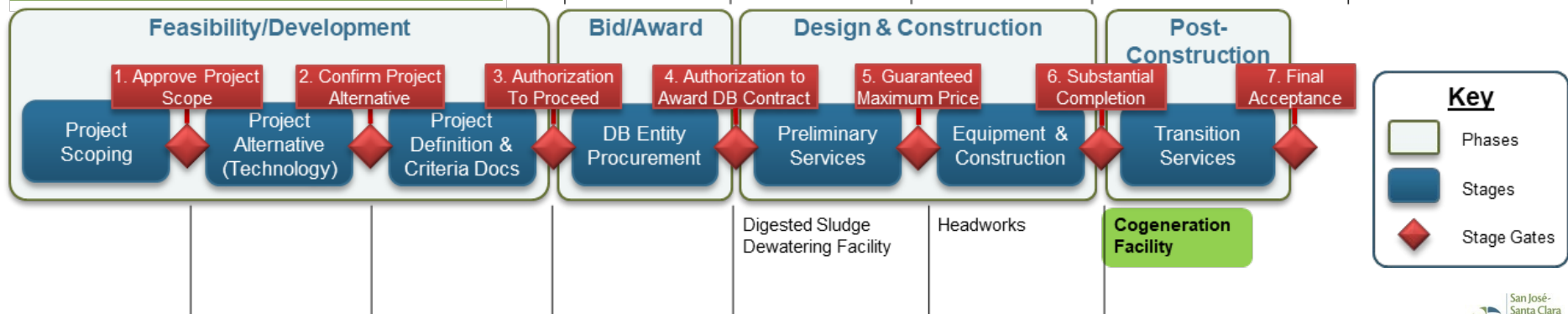
- Process Optimization Study
- Energy Management Study

Program Snapshot: All Projects

Design-Bid-Build Active Projects



Progressive Design-Build Active Projects



Two Projects in Feasibility/Development



Scoping

- Final Effluent Pump Station and Stormwater Channel Improvements

Project Alternatives

- Flood Protection

- Final effluent discharging to the stormwater channel.

Seven Projects in Design and Bid/Award



- **Facility Wide Water Systems Improvements geological boring activities.**

Preliminary Design

- Facility Wide Water Systems Improvements
- Storm Drain System Improvements

Detailed Design

- Fire Life Safety Upgrades
- HVAC Improvements
- Outfall Channel and Instrumentation Improvements

Bid & Award

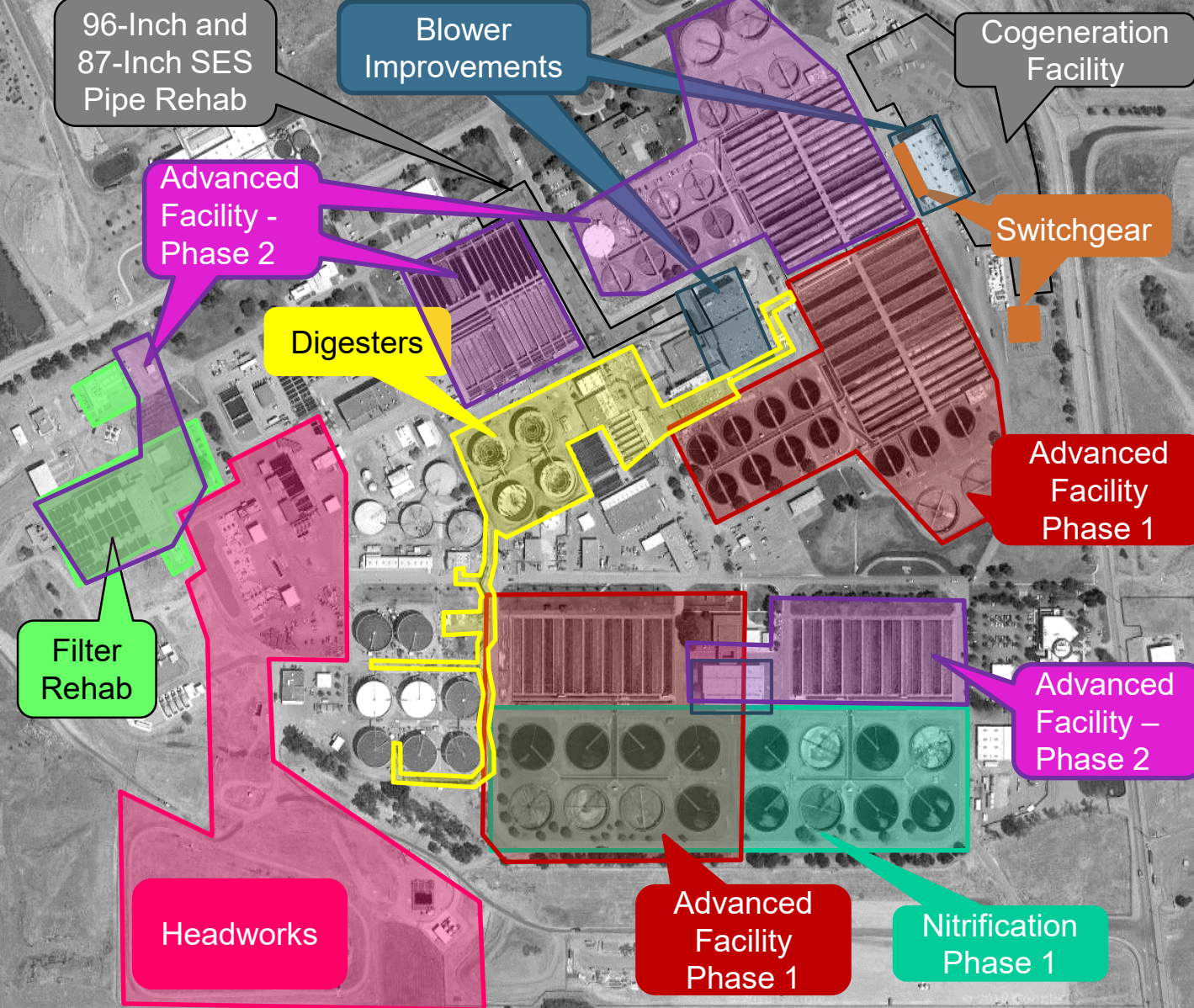
- Yard Piping Improvements – Phase 1

Preliminary Services

- Digested Sludge Dewatering Facility

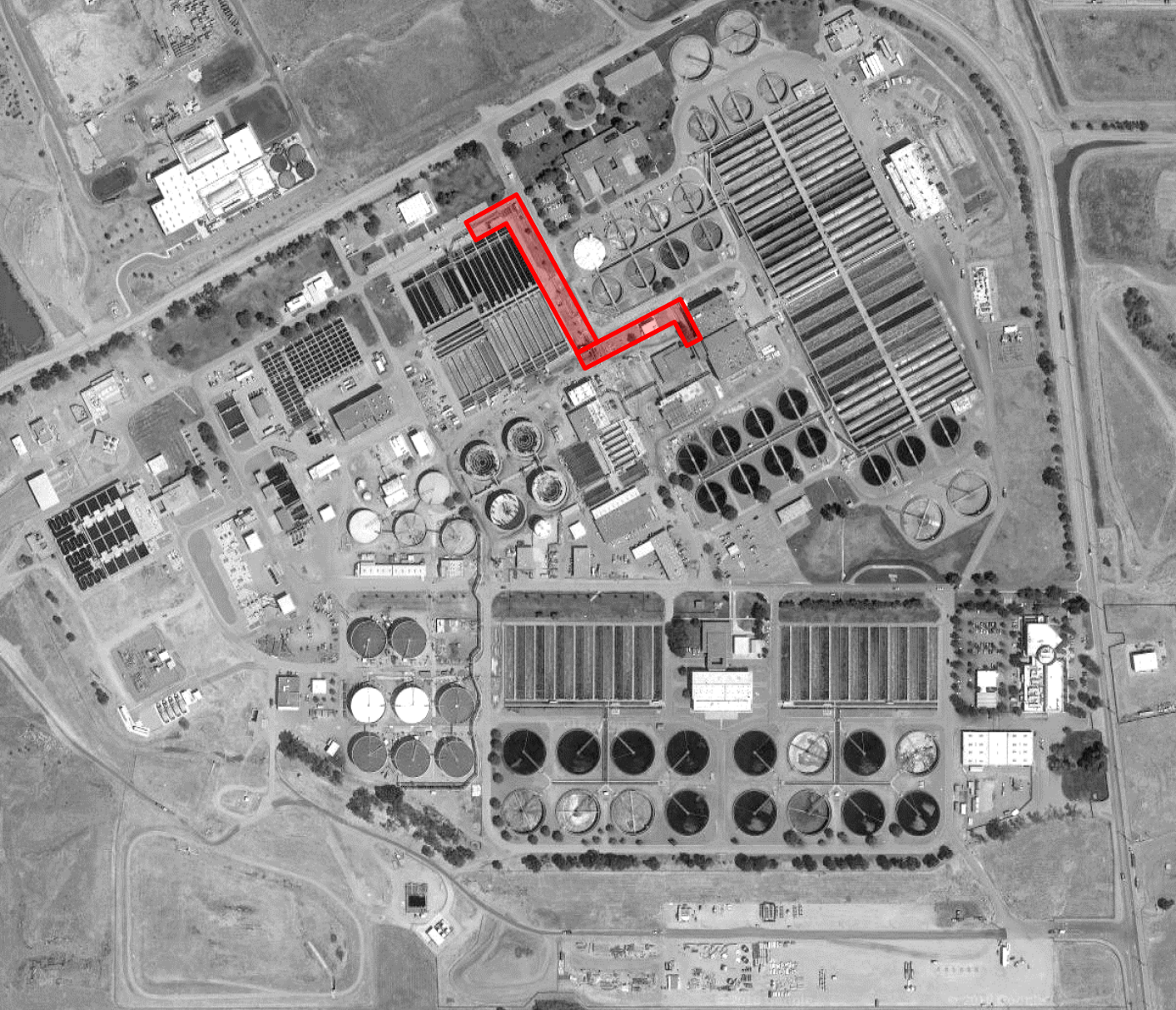


- **Yard Piping Improvements – Phase 1 Condition Assessment.**



Ten Projects In Construction

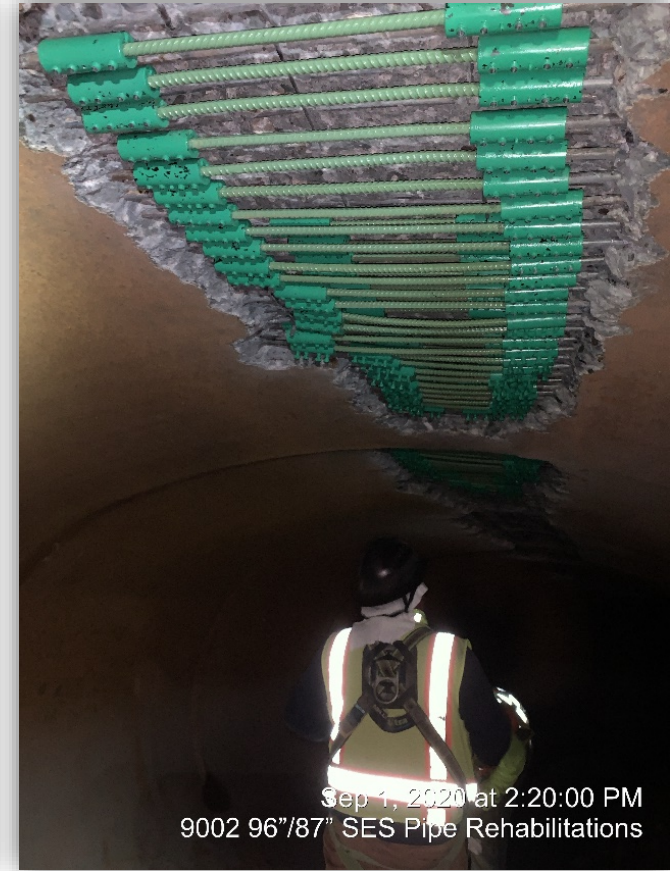
Total Base Construction Value: \$398M



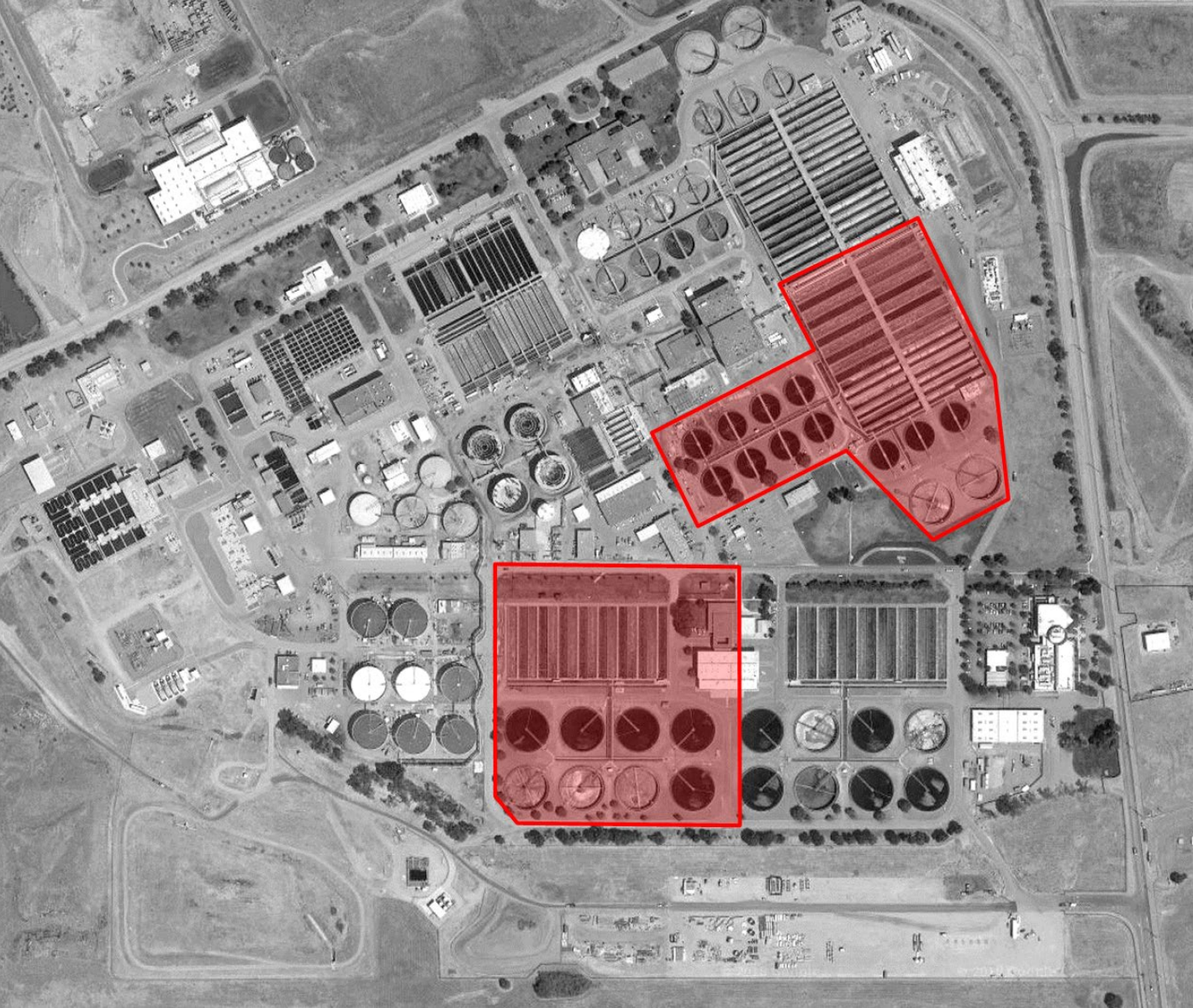
96-inch and 87-inch Settled Sewage Pipes Rehabilitation Project

Construction Value: \$4.8M | Beneficial Use achieved October 2020

Construction Highlights – 96-Inch and 87-Inch Settled Sewage Pipes Rehabilitation



- Contractor installing mechanical splices before replacing the pipe crown concrete.



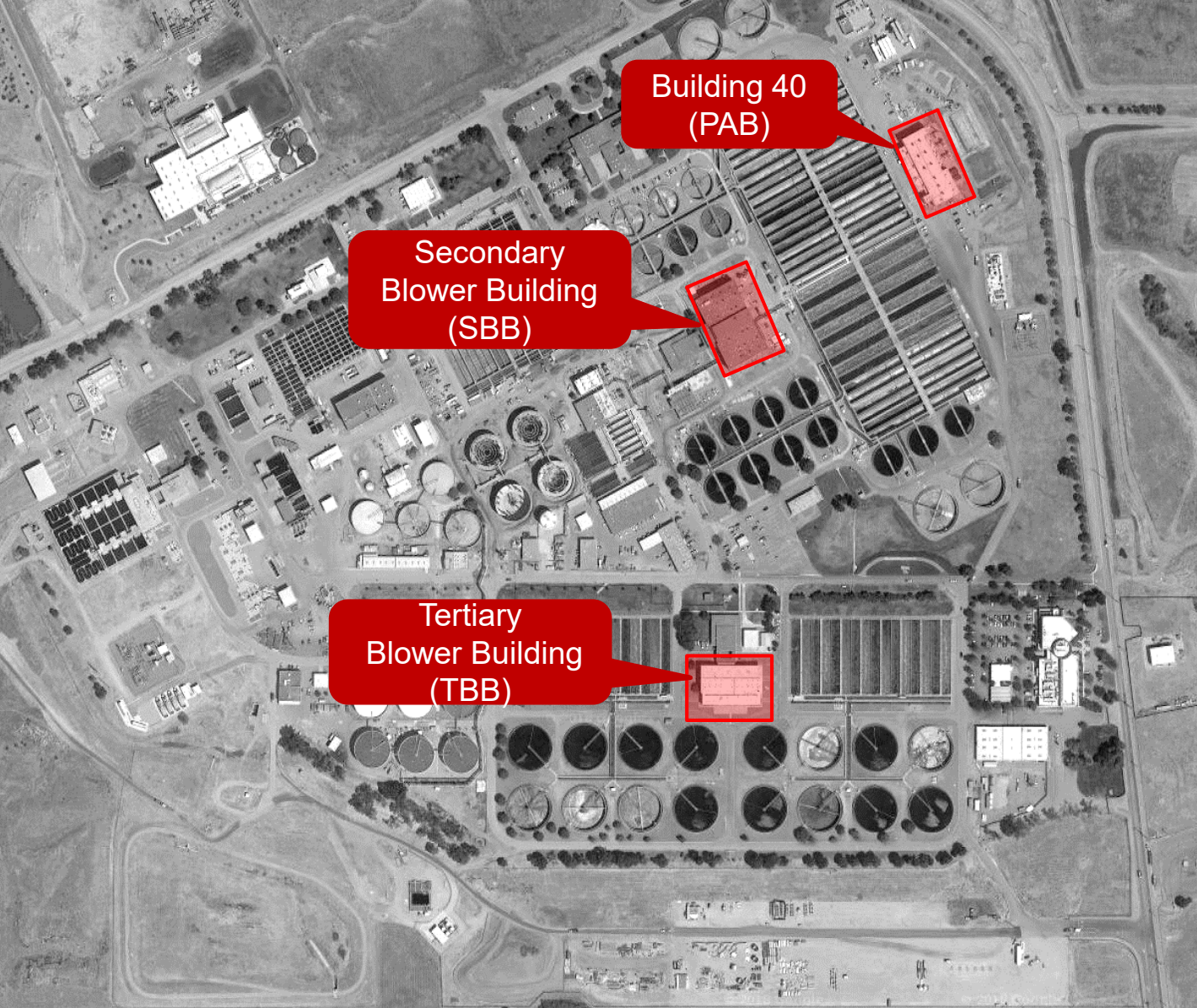
Advanced Facility Control & Meter Replacement Phase 1 Project

Construction Value: \$5.8M | Estimated Beneficial Use: Summer 2021

Construction Highlights – Advanced Facility Control & Meter Replacement - Phase 1



- Contractor replacing flow meters in the Return Activated Sludge (RAS) pipe gallery.



Blower Improvements Project

Construction Value: \$29.5M | Estimated Beneficial Use: Winter 2022-23

Construction Highlights – Blower Improvements



- Contractor performs work in the TBB electrical room.



- PAB Building blower No. 2 motor after reconditioning.



Cogeneration Facility Project

Construction Value: \$94.7M | Beneficial Use achieved December 2020

Construction Highlights – Cogeneration Facility



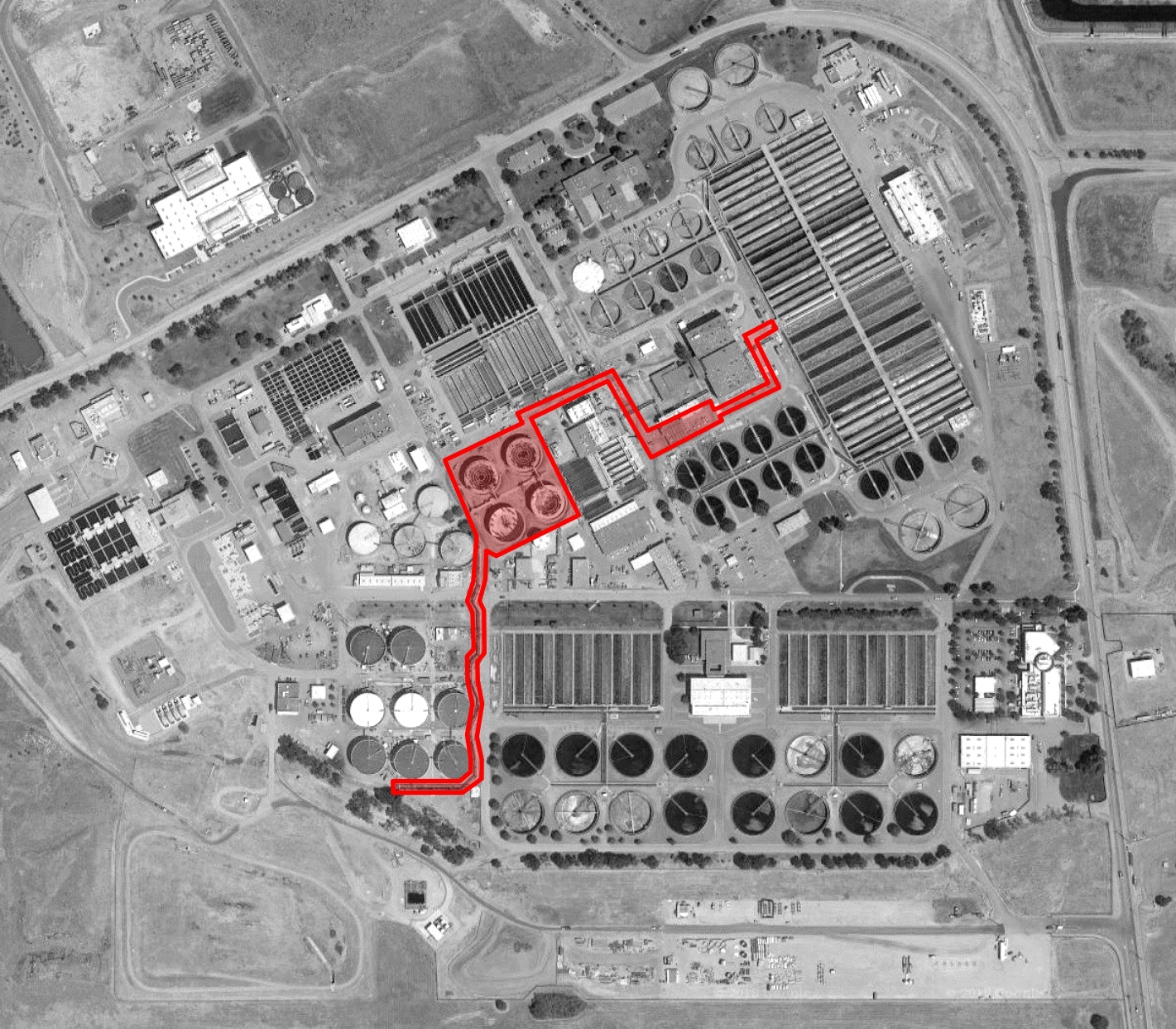
- Contractor preparing cogeneration engine for testing.



- Installation of hot water supply and return piping which will be used by the digesters.

Construction Highlights – Cogeneration Facility





Digester & Thickener Facilities Upgrades Project

Construction Value: \$107.9M | Estimated Beneficial Use: Fall 2021

Construction Highlights – Digester Upgrades



- Dissolved air flotation thickener (DAFT) covers and odor control piping.



- Roadwork on Main Street with the new Sludge Screen Building in the background.

Construction Highlights – Digester Upgrades



- Digesters and DAFT facilities as of September 2020

An aerial photograph of a large industrial facility, likely a wastewater treatment plant. The facility features numerous circular tanks, rectangular basins, and various buildings. A specific building complex on the left side of the image is highlighted with a red outline. The surrounding area includes roads, parking lots, and some greenery.

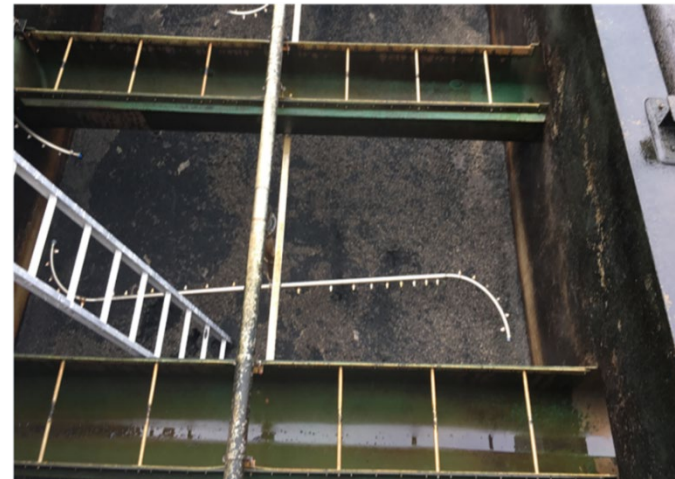
Filter Rehabilitation Project

Construction Value: \$33.3M | Estimated Beneficial Use: Summer 2024

Construction Highlights – Filter Rehabilitation



- **Top Left:** Filtration Building, filter beds, and serpentine tans.
- **Top Right:** Surface wash arm system to be replaced with an air scour system.
- **Bottom Right:** Surface wash pumps to be replaced with new blowers to support the new air scour system.



An aerial photograph of a wastewater treatment plant. The facility includes numerous circular clarifiers, rectangular aeration tanks, and various support buildings. A specific area on the left side of the plant is highlighted with a red overlay, indicating the construction site for the Headworks Project. The surrounding area includes roads and some undeveloped land.

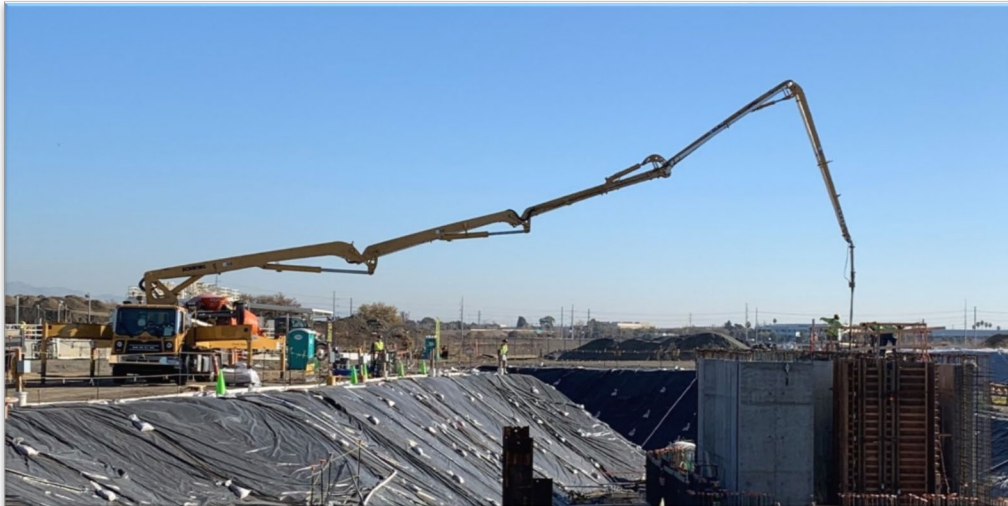
Headworks Project

Construction Value: \$126.9M | Estimated Beneficial Use: Summer 2023

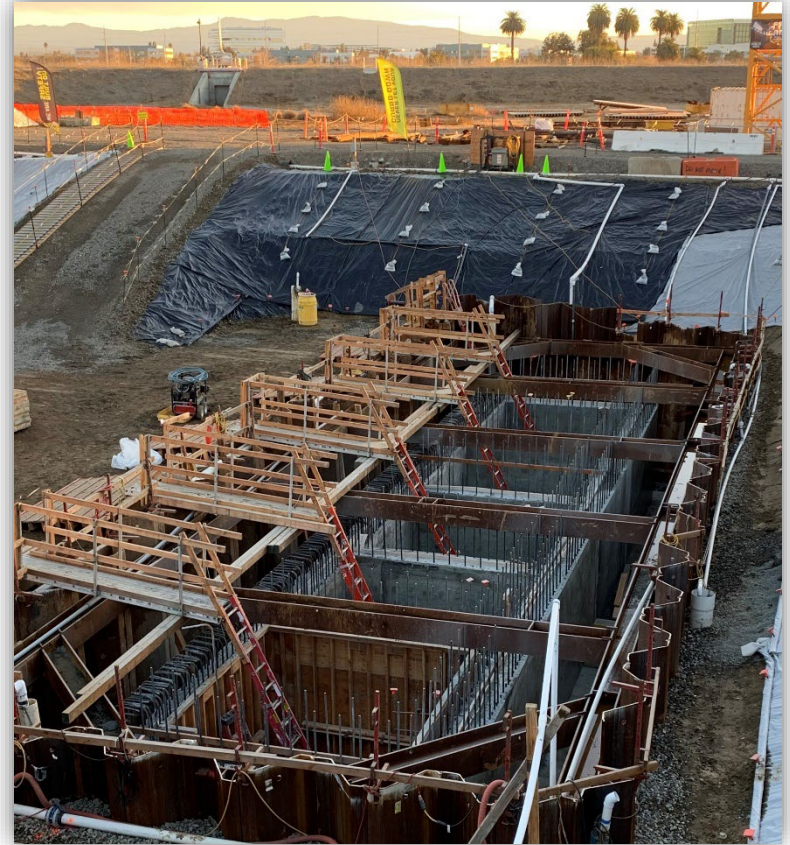
Construction Highlights – Headworks



- Grit building foundation construction.



- Concrete placement for influent structure walls.



- Construction of raw sewage pump station wet wells.

Construction Highlights – Headworks



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- Headworks No 3 construction as of September 2020.

An aerial photograph of a large industrial facility, likely a wastewater treatment plant. The facility is composed of numerous circular tanks, rectangular basins, and various buildings. A red rectangular box is superimposed on the image, highlighting a specific area in the lower-middle section. This highlighted area contains a grid of circular tanks, which are the nitrification clarifiers mentioned in the text. The surrounding area includes roads, parking lots, and some greenery.

Nitrification Clarifiers Rehabilitation Phase 1 Project

Construction Value: \$ 26.2M | Estimated Beneficial Use: Winter 2022-23

Construction Highlights – Nitrification Clarifiers Rehabilitation - Phase 1

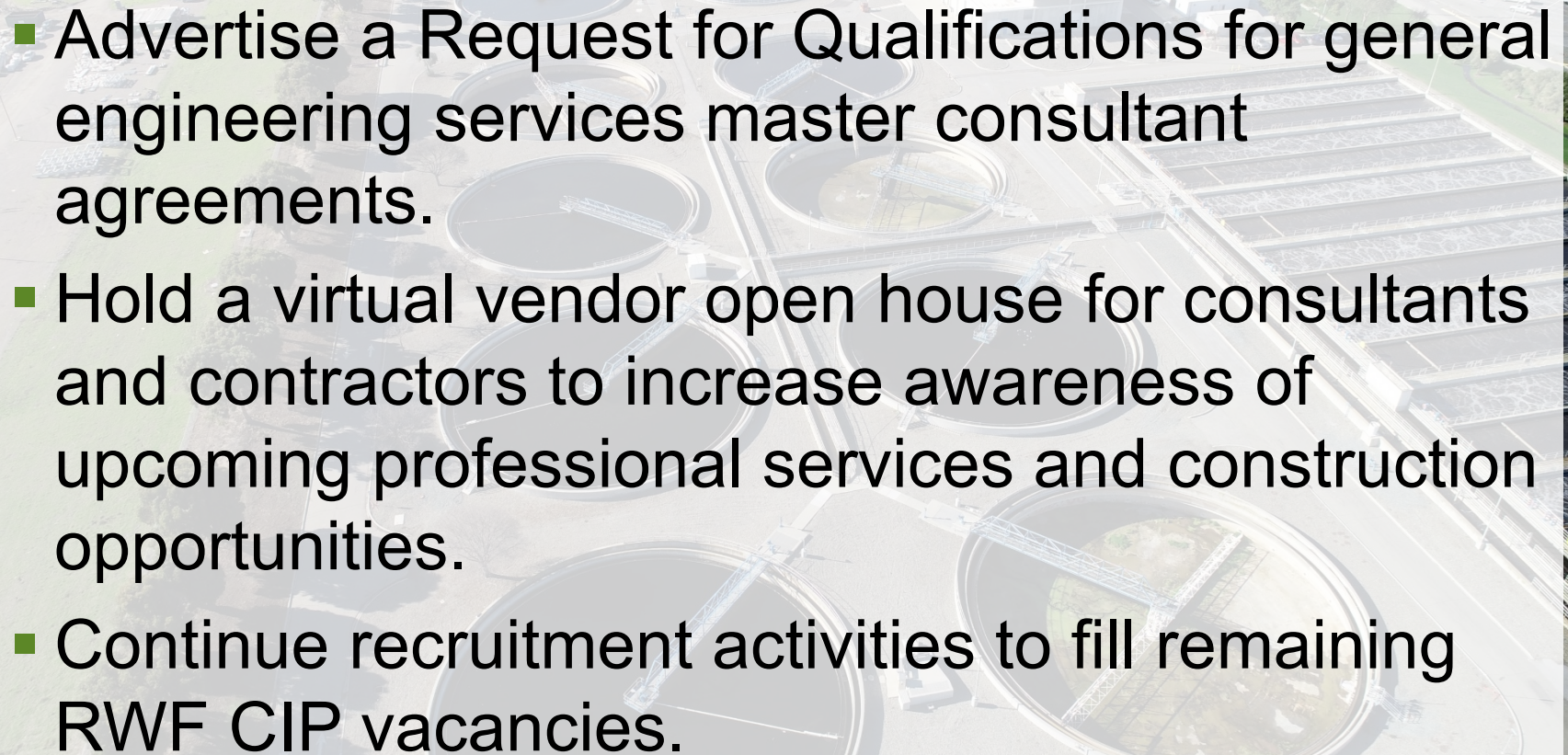


- **Top Left: Nitrification Clarifier B6 mechanism demolition.**
- **Top Right: Contractor working in the RAS gallery.**
- **Bottom Left: Nitrification Clarifier B2 channel repair with rebar and partial form installed.**

The Next Six Months – Project Activities

- Obtain Council approval to award the construction contract for the Yard Piping Improvements - Phase 1 project.
- Advertise the Fire Life Safety Upgrades and Outfall Channel and Instrumentation Improvements projects for bid.
- Initiate the Yard Piping Improvements - Phase 2 and Construction-Enabling Improvements - Phase 2 projects.

The Next Six Months – Programmatic Activities

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- Advertise a Request for Qualifications for general engineering services master consultant agreements.
 - Hold a virtual vendor open house for consultants and contractors to increase awareness of upcoming professional services and construction opportunities.
 - Continue recruitment activities to fill remaining RWF CIP vacancies.



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