



TUALATIN VALLEY
WATER DISTRICT

209TH & FARMINGTON FACILITY PROJECT



Justin Dyke

CPO 6 – January 2022



209TH & FARMINGTON SITE

TVWD Farmington Facility

Developing the previously unused lot to become a water system operations building

Single story brick building enclosing water system equipment

- Similar size to a small single-family home
- Onsite storm water detention and landscaping improvements
- Security fencing surrounding site and storm water pond

Northeast corner of SW 209th & Farmington intersection

- Operations building in the southwest corner, closest to the intersection
- Access vaults in northwest corner

Connections to increase resiliency and flexibility

- Willamette Water Supply System required connection
- Joint Water Commission transmission connection
- Grabhorn Reservoir
- 24" & 16" transmission mains required



209TH & FARMINGTON

TVWD Future Facility

Receive water from the Willamette Water Supply System, when completed

- One of three eventual connection points for the Willamette Water Supply System and TVWD
- Provide flow control via several operating modes and pressure regulating valves
- Fluoridate incoming water to the TVWD system

This project is an approximately \$8 million investment in the water system paid through revenues from normal water bills.

Emery & Sons Construction has been hired to build and commission the facility

- Emery also built the Grabhorn Reservoir, completed in 2019

Public outreach efforts will continue at regular intervals

- Virtual community meeting
- CPO6 presentations
- Virtual open house
- Project update emails

MEET THE TEAM

TVWD Staff



Andrew Barrett, P.E.
Project Manager, Senior Engineer



Jeff Tuck
Project Inspector



Justin Dyke
Public Outreach & Engagement

MEET THE TEAM

Contracted Staff



Arin Atiyeh
Emery & Sons
Senior Project Manager

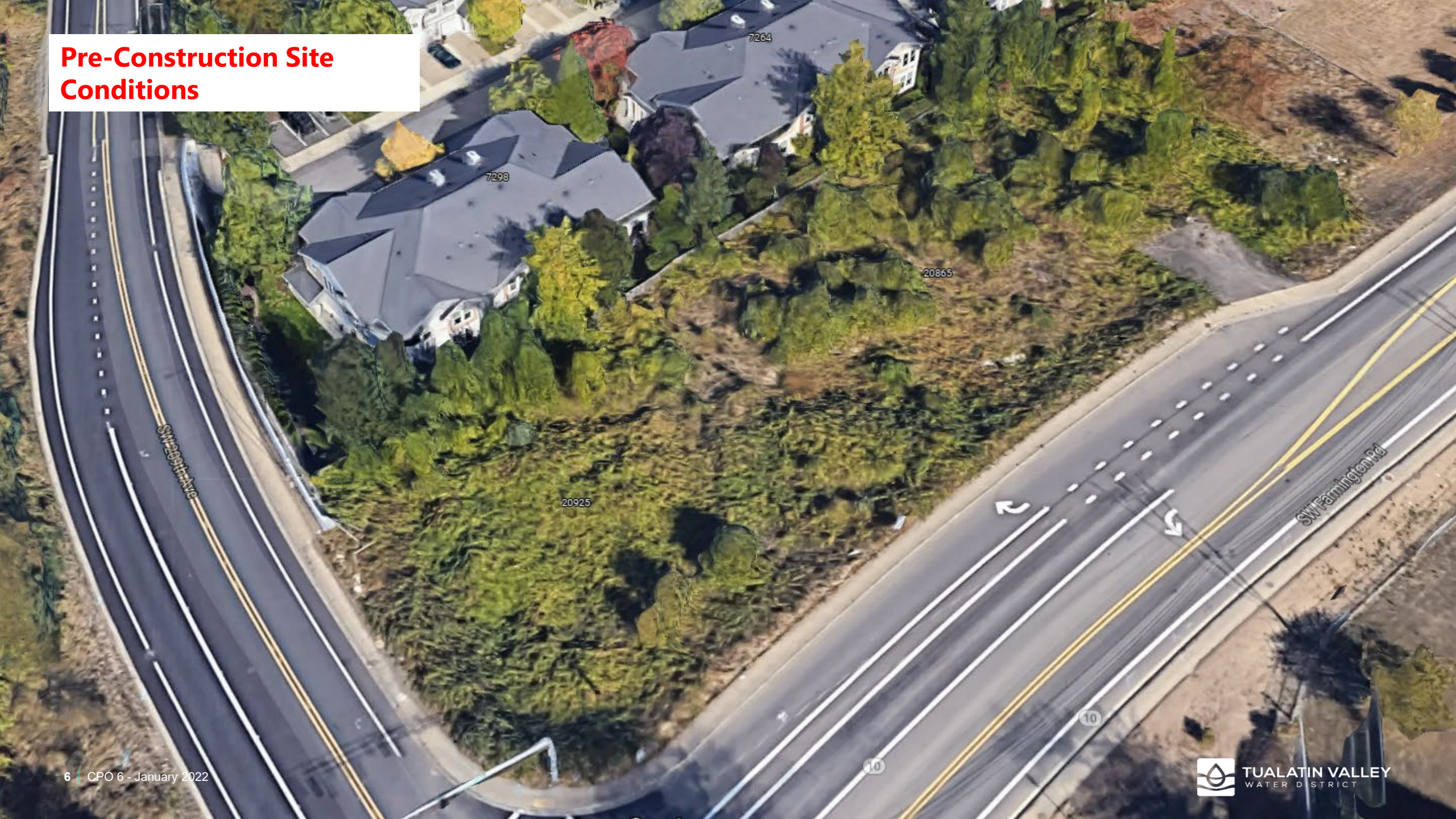


Jesse Fields
Keller Associates
Design Engineer



Peter Olson
Keller Associates
Engineering Project Manager

Pre-Construction Site Conditions



**WWSS Access
Vaults**

**Public
Sidewalk**

**Stormwater
Detention**

ON THE INSIDE

Making the System Flow

Above ground, enclosed water system facilities are the safest and most reliable for long term operation and maintenance.

- 50 feet of above ground pipe connecting the onsite incoming and outgoing water mains
- 4 water system isolation valves
- One 16" pressure regulating valve
- SCADA equipment for remote site controls

Incoming water to TVWD will be fluoridated as it enters the distribution system

- Sodium fluoride is dissolved in saturator tanks, then added by a digital control unit via pumps and specialized mixing equipment
- Regardless of flow rate, no more than 0.7 mg/l enters the water system
- Fluoridation levels are continuously monitored by digital analyzers



OFFSITE WATER MAINS

November 2021 – February 2022

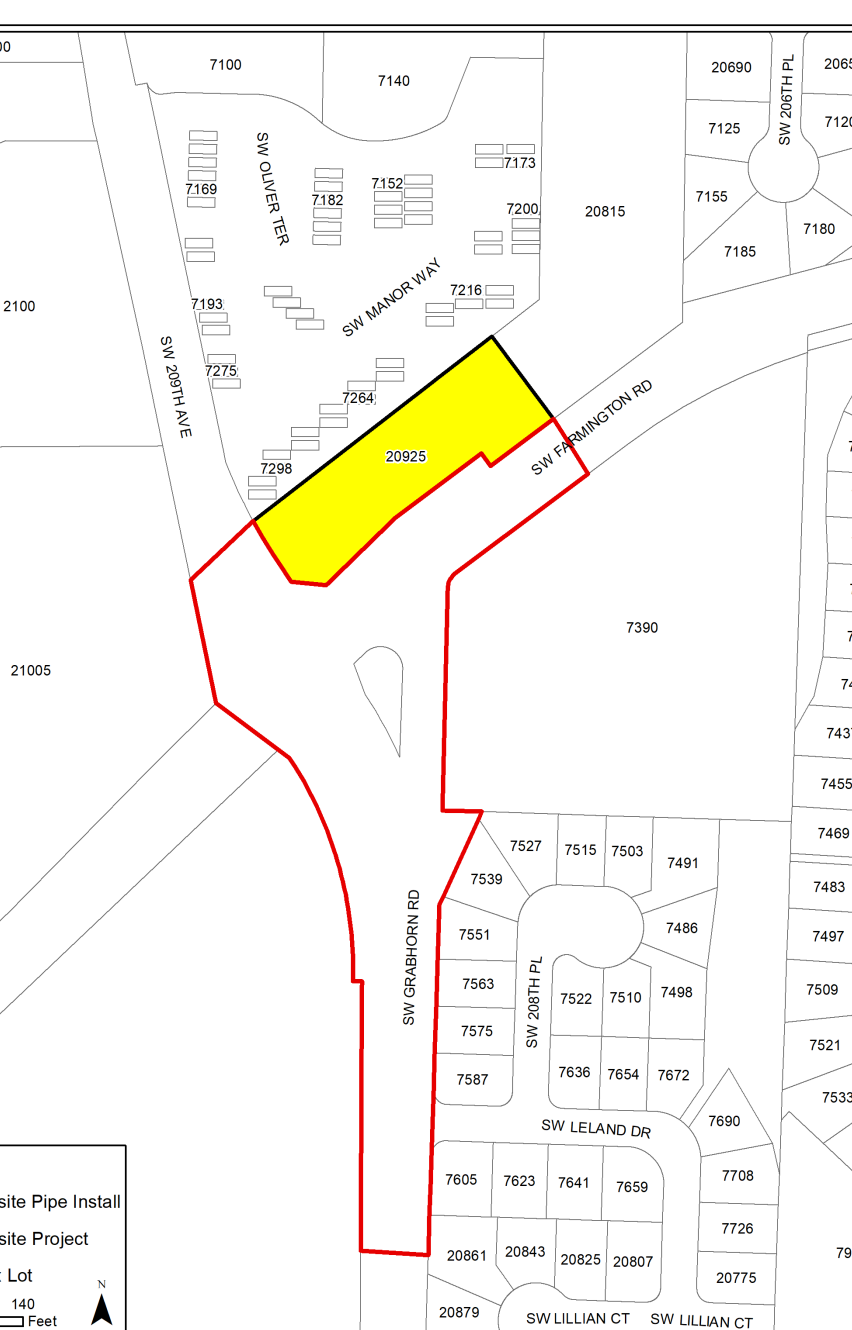
New offsite water mains will deliver water from the project site to the larger water system.

- 16" and 24" water mains across Farmington, connecting to existing water mains serving Farmington area
- 24" water main up Grabhorn to Leland Drive, connecting to Grabhorn Reservoir
- Existing 24" water main under Leland Drive was installed in 2018

Initially, this project included piping up to Cooper Mountain Reservoirs

- Future project on Kemmer Road will connect TVWD & Beaverton reservoirs
- Scope reductions creating cost savings for future water rates.





CURRENT STATUS

On Schedule

Current status

- 95 percent of offsite pipe work is complete
- Pressure testing & disinfection happening now
- Permanent road restoration this spring, weather dependent

Traffic delays during work hours

- Lane closures and traffic controlled by flagging
- Moving work zone near active installation area
- Please expect delays during this time

Open trench pipe installation

- Significant noise from saw cutting, digging, equipment, and vehicles
- Work continues at Grabhorn & Leland intersection
- This stage is the most impactful to traffic



LIVING NEXT TO TVWD

Typical Activity at the Site

Water operator site visits:

- Certified operators will conduct required daily water system inspections inside the operations building
- 1-2 operators, typically a single pickup truck
- Done without advance notice in most cases

Grounds team site visits:

- Exterior site maintenance that changes with the seasons and as needs arise
- Weekly visits in summer and fall, monthly visits during winter and spring
- Small teams or individuals, pickup truck or small dump truck

Deliveries do occur for materials, typically quarterly

- Box trucks are used by most delivery companies

TVWD staff may use the facility as a parking area to fill out reports or occasionally take their lunch break.

CONSTRUCTION SCHEDULE

Schedule is Estimated – Expect Changes & Refinements



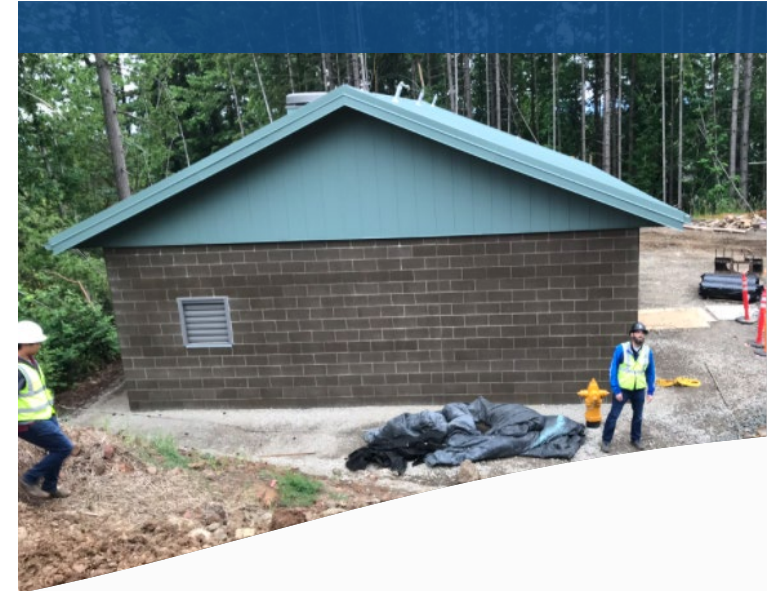
Site Preparation & Earth Work

- Approximately 2 months, after permits are issued
- Large equipment, noise, vibration expected
- Grade to closely match roadways



Building Construction & Onsite Piping

- Approximately 10 months
- Local impacts change based on current work
- Frequent updates from TVWD



Final Punchlist & Commissioning

- Approximately 3 months, January 2023
- TVWD operator training

KEMMER ROAD

Connecting Reservoirs for TVWD & Beaverton

Enabled reductions for 209th & Farmington project

- Removal of pump station and building
- Reduction in offsite water main needs

Creates secondary water source to Cooper Mountain Reservoirs

- Allows for upgrades at current pump stations & reservoirs
- Separate project communication will start once details are known
- Cost savings of \$3M



KEEP IN TOUCH

We are Neighbors

Project Website & Open House

TVWD.org/Farmington

- Updated monthly (approximately)
- Key milestones achieved or upcoming
- Changes to work schedules
- Renderings of completed project

Sign Up for Email Updates

TVWD.org/Farmington

- Updates are sent every 2-3 weeks
- Most frequently used communication tool
- Key announcements, progress photos, schedule changes
- If you receive e-bills, you're included already
- Please sign up!

Contact the TVWD Team

Email:

Outreach@TVWD.org

Phone:

503-848-3000