Battle Ground University

Public Works

Engineering Division

Operations Division

September 29, 2026
Class #3

Session 3 – Public Works

- Department Organization – *“Our Team”*
- Engineering Division – *“Building Our City”*
- Operations Division – *“Maintaining Our City”*
- Q&A Session and sneak peek of Session #4

Department Organization

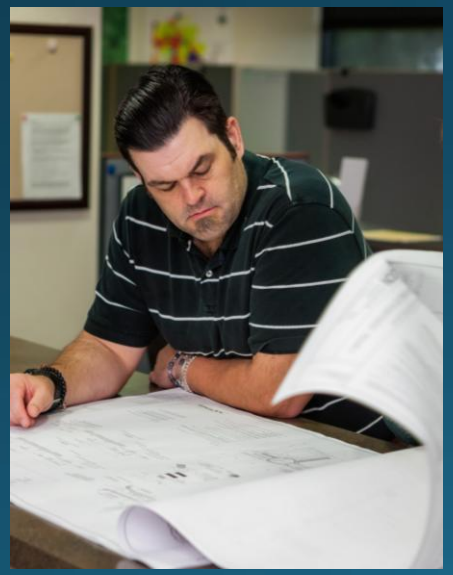
"Our Team"

Department Organization

Public Works Director

Engineering Division

Operations Division





Design & Construct

Maintain & Operate

Department Organization



Primary Functions:

- *Engineering*
- *Design*
- *Inspection*

Led By:

- *City Engineer*

Department Organization

Primary Functions:

- *Inspections*
- *Maintenance*
- *Repair*
- *Daily Operations*

Led By:

- *Operations Manager*



Engineering Division

“Building Our City”

Engineering – Capital Projects

A Capital Project is a long-term capital-intensive investment to build upon, add to, or improve a publicly owned assets.

Quick Facts:

- 2026 Budget = Around $33 million
- 101 Projects/Plans on “To-do List”
- Project Management/Inspection Team = 7 Staff

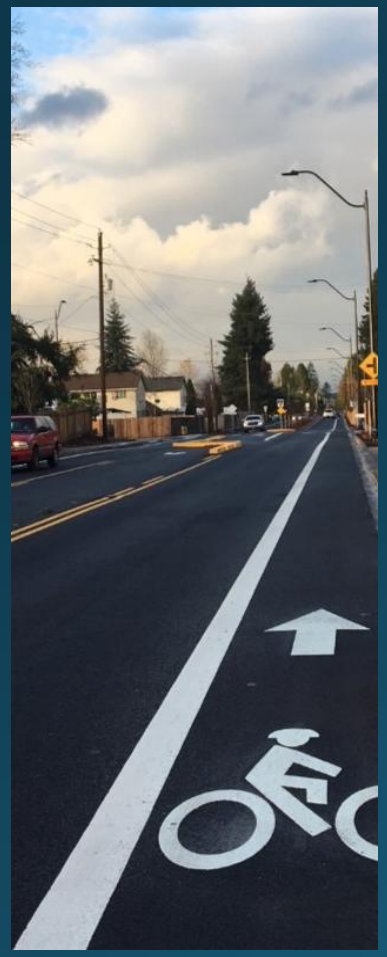


Tukes Mountain Reservoir Project - 2026

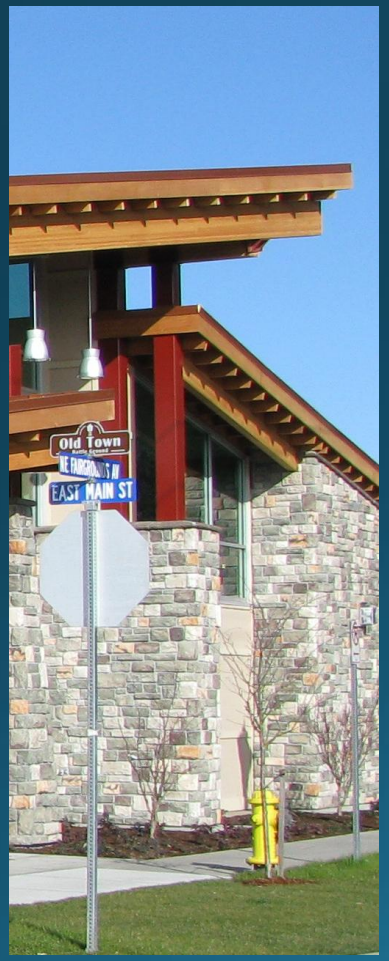
Engineering – Capital Projects

Project Categories:

TRANSPORTATION



FACILITIES



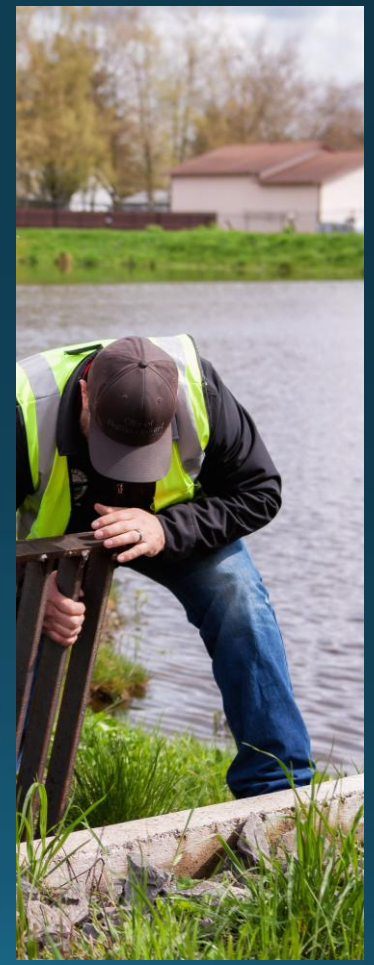
PARKS & OPEN SPACES



UTILITIES



STORMWATER



Engineering – Capital Projects

Concept Development

- Purpose and Need Statement
- Concept Development & Alternative Analyses
- Selection of Preliminary Preferred Alternative
- Concept Development Report
- Public Outreach & Involvement

Preliminary Engineering

- Approve Design Report
- Cost Estimates
- Preliminary Design
- Preliminary Engineering Report
- Continue Public Outreach & Involvement
- Environmental Screening Report & NEPA Classification

Final Design/ ROW

- Construction Contract Documents
- Environmental Reevaluations
- Approved Environmental Documents
- Secure Environmental Permits
- Acquisition of Right-of-Way (ROW)
- Final Utility Relocation Schemes (as needed)
- Continue Public Outreach & Involvement

Construction

- Complete Construction
- Ongoing Inspections
- As-Built Plans
- Close-out Documentation

Engineering – Capital Projects

In Focus: Street Preservation Program

Project Budget:

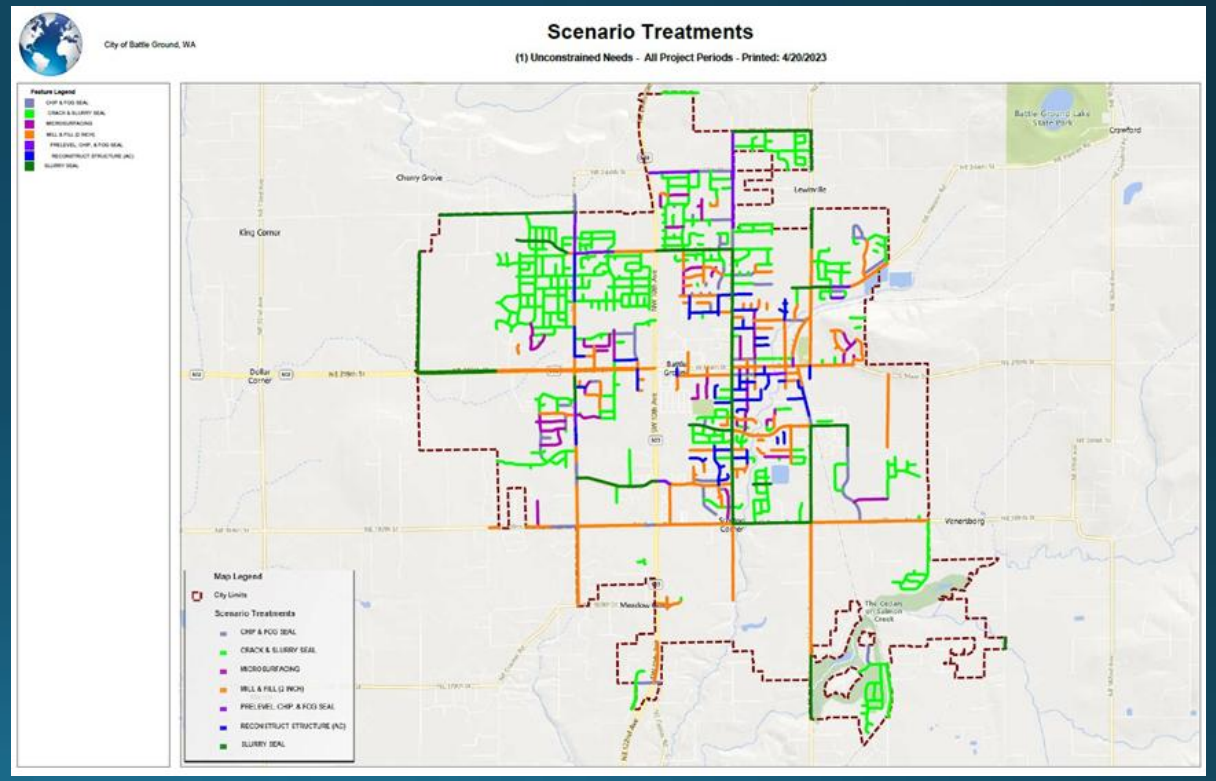
- $8.0m to be spent in 2026
- $1.0m projected for 2027
- $14.3m deferred maintenance (2026)

Preservation/Rehabilitation:

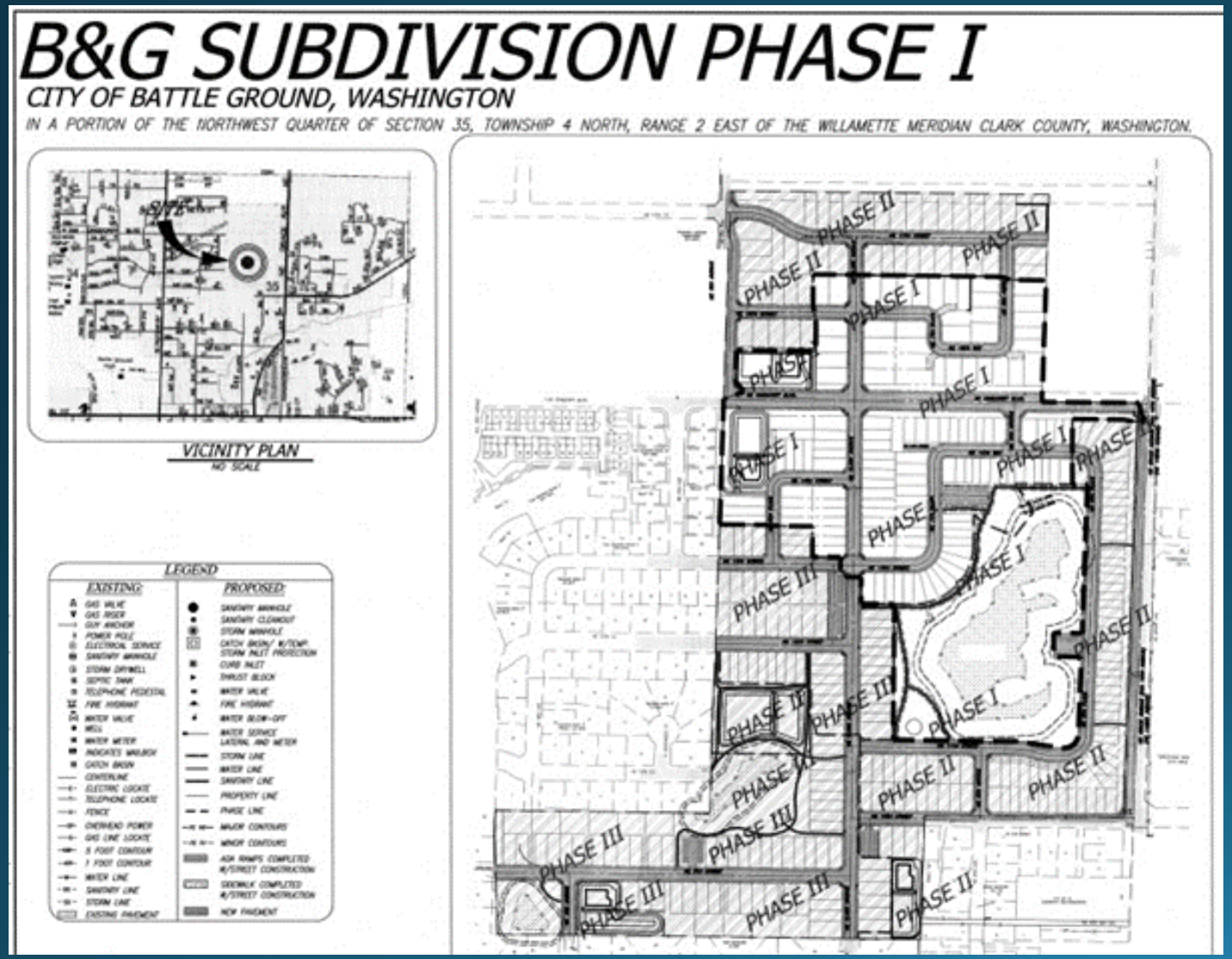
Reconstruction *($150/sy)*
Mill & Fill *($22/sy)*
Cape Seal *($10/sy)*
Chip Seal *($7/sy)*
Micro Surfacing *($5/sy)*
Slurry Seal *($3/sy)*
Crack Seal *($1/lf)*

sy = square yard
lf = lineal feet

PCI Currently = 72, Good
Pavement Condition Index



Engineering – Development Projects



Development Projects include new construction and/or improvements on privately owned properties.

Quick Facts

- Contract Consultants = 2
- All costs are passthrough
- Engineering Items:
  - *Pre-Application Comments*
  - *Staff Reports*
  - *Engineering Plan Review*
- Overseen by City Engineer

Engineering – Development Projects

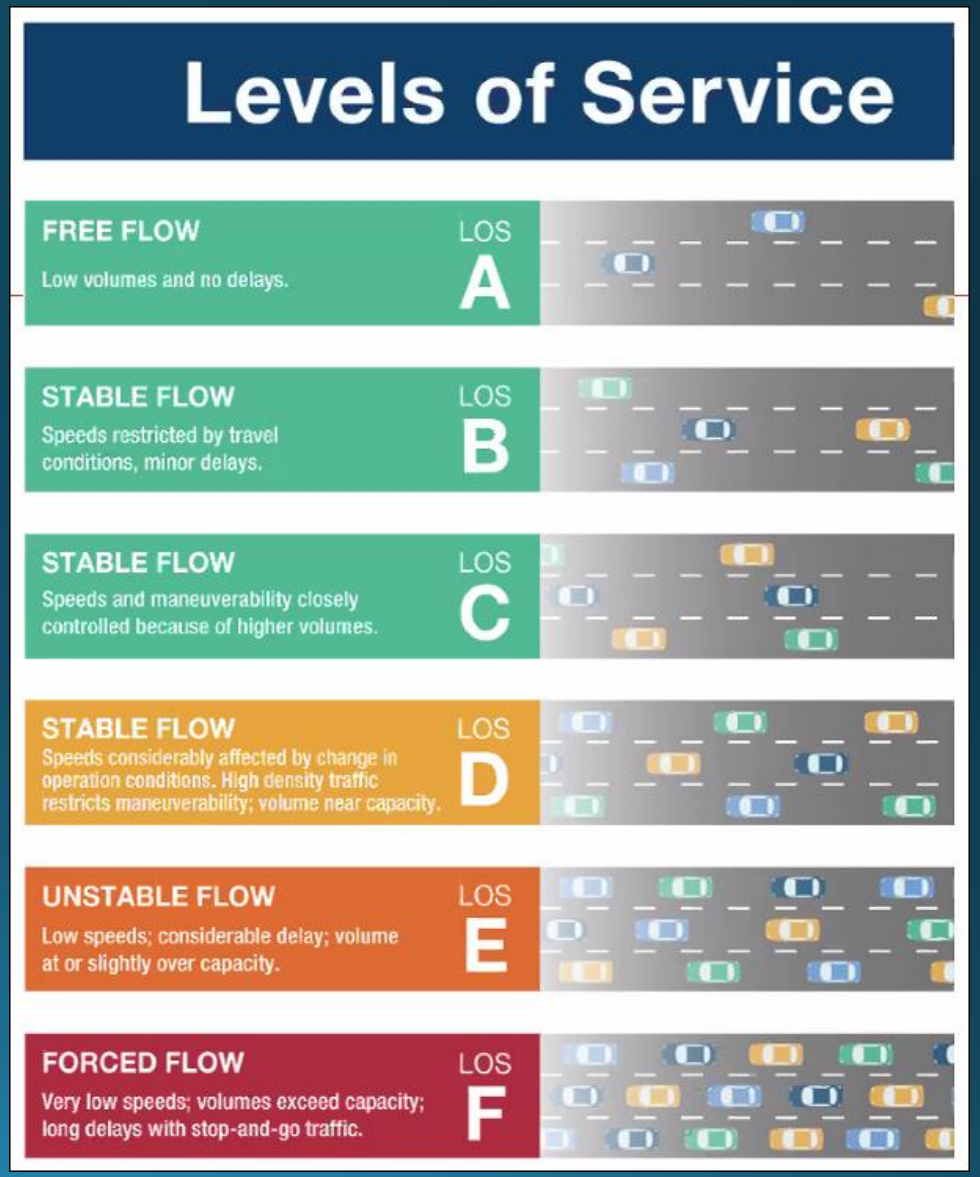
Concurrency: *Capacity of the transportation system matches demand*.

Levels of Service (LOS): *A is Good, F is Bad*

- Signalized Intersections = LOS D
- Unsignalized Intersections = LOS E *(Can't Meet Signal Warrants)*
- Concurrency Mitigation Fee – Developer pays the proportionate cost of a future improvement to mitigate their impacts.

Frontage Improvements:

- Developers are only responsible for directly abutting frontage.



Engineering – Inspection/Right-Of-Way



Right-Of-Way (ROW) is the area of land owned by the City which is reserved for transportation and utility purposes.

Quick Facts

- 2 Inspectors
- Responsible for the inspection of all Capital & Development Projects
- Responsible for issuing ROW Permits

Engineering – Stormwater Management



Mission: Ensure the public's health and safety and to protect the environment by establishing and enforcing standards for stormwater drainage.

Quick Facts

- Program Coordinator & 2 Technicians
- NPDES Permit
  - *Erosion Control Inspection*
  - *Business Inspection*
  - *System Mapping*
  - *Behavior Changes*
- Stormwater Capital Projects

Engineering – Traffic/Assets/CAD



- 1 Engineering Technician and 1 GIS Specialist
- Traffic Data Collectors
  - *Speed/Volume/Classification*
- Assets/GIS
  - *Signs*
  - *Markings*
  - *Pipe*
  - *Manholes*
  - *Playground Equipment*
- AutoCAD
  - *Creating detailed maps and drawings for City projects and records*

Engineering – Traffic/Assets/CAD



Speed Limits

RCW 46.61.400 - Basic Rule & Maximum Limits

- 20 MPH – on City residential streets (recently changed)
- RCW 46.61.415 – Allows modification to speed limits through traffic study
- Manual on Uniform Traffic Control Devices (MUTCD) outlines study requirements

Engineering – Traffic/Assets/CAD



Signage and Markings

Standards set by the Department of Transportation, outlined in MUTCD.

Most Frequent Requests:

- Stop Signs
  - *Convert Intersection to all way*
  - *Warrants*
- Speed Limit Signs
  - *Please add more signs*
- Crosswalk Signs/Markings
  - *Stripe/Sign Crosswalk Not Already Marked*

Engineering – Traffic/Assets/CAD



Traffic Calming

Methods:

- *Speed Humps*
- *Medians*
- *Concrete Crossings*
- *Bulb Outs*

- Required in all new developments.
- City currently has no program for existing neighborhoods.
- Speed Humps NOT ALLOWED on Arterials or Major Collector roads.
- Existing neighborhood traffic calming projects have been funded through grants.

Operations Division

"Maintaining Our City"

Operations – Drainage *(aka Stormwater)*



Asset Summary

120 Stormwater Facilities

2,550 Catch Basins

Quick Facts

- 3 Full-Time Employees
- 6 Seasonal *(4 Summer, 2 Winter)*

Responsibilities:

- Maintain Stormwater Facilities
- Maintain Catch Basins/Manholes/Pipe
- Street Sweeping

Operations – Drainage *(aka Stormwater)*



Photo: Street Sweeper

Equipment:

- Vactor Truck
- Street Sweeper
- Mini Excavator
- Dump Truck
- Jet Truck

Street sweeping occurs every Friday on main thoroughfares. Residential streets swept 3 times per year. Additional sweeping as needed in high traffic areas and limited storm facilities.

Operations – Parks

Asset Summary

- 72.84 Acres of Parks
- 22 Named Parks
- 206.03 Acres of Open Space

Quick Facts

- 3 Full-Time Employees
- 2 Seasonal Employees

Responsibilities:

- Landscape Maintenance & Mowing
- Maintain Equipment & Accessories
- Inspection



Operations – Streets

Asset Summary

- 90+ Centerline Miles
- 5 Signals
- Thousands of Signs



Quick Facts

- 3 Full-Time Employees
- 10 Seasonal Employees

Responsibilities:

- Potholes Repairs
- Signs Maintenance
- Street Markings
- Mow ROWs
- City Street Trees
- Snow Removal
- Signals (Contracted)

Operations – Facilities & Fleet



Vehicles/Equipment

- 100+ City Vehicles
  (including Police vehicles)
- Generators

Facilities

City Hall
Event Center
Operations Center
Police Station
Senior Center



Operations – Facilities & Fleet



Photo: Operations Center – Flex Use Building

Quick Facts

- 3 Full-Time Employees
- 1 Seasonal Employee

Responsibilities:

- Vehicle Maintenance
- Building Maintenance
- Generator Maintenance

Operations – Sewer

Asset Summary

- 14 Pump Stations
- 80+ Miles of Pipe

Equipment:

- Dump Truck
- Vac Truck
- Jet Truck
- TV Truck
- Service Truck



Photo: Vac Truck

Quick Facts

- 4 Full-Time Employees

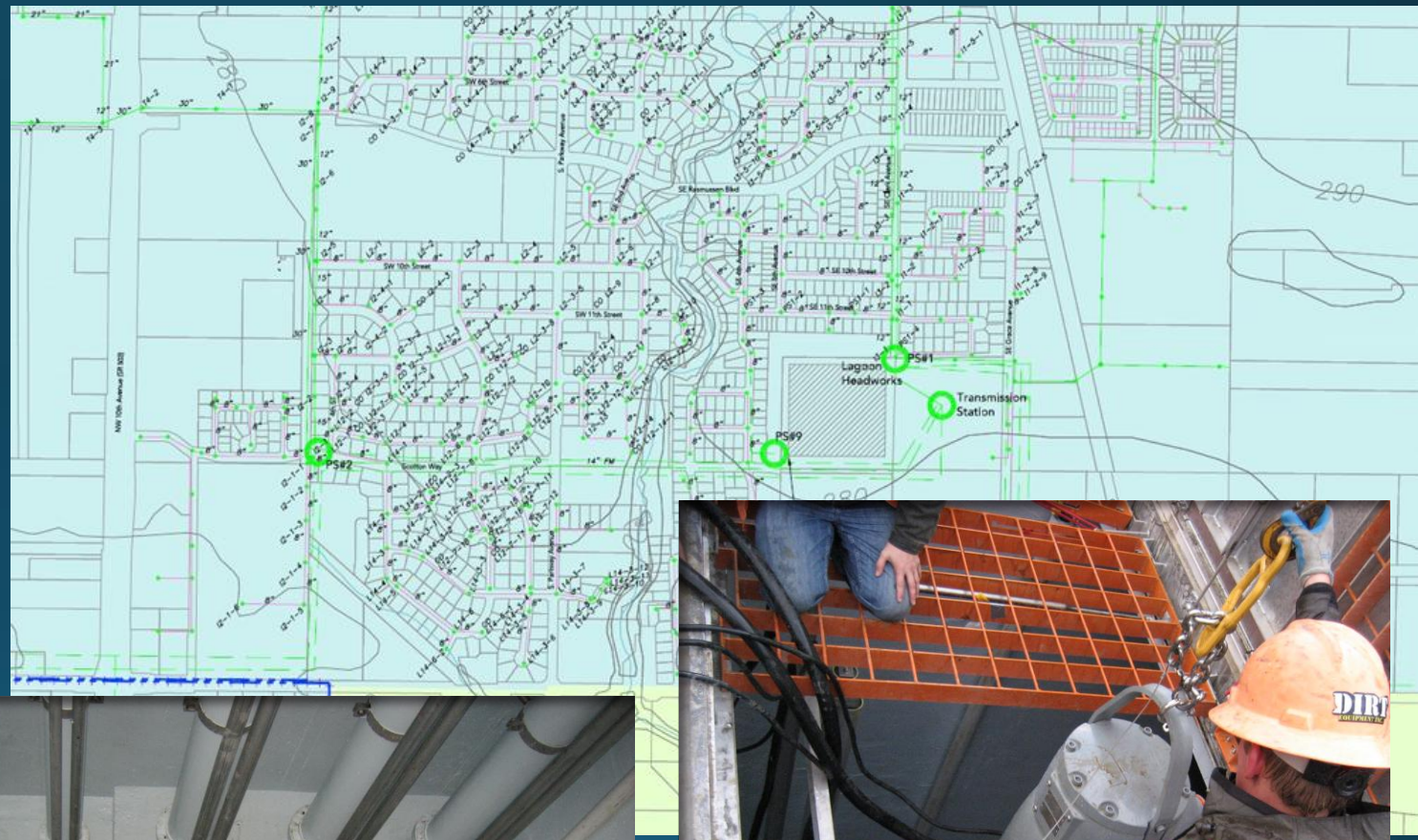
Responsibilities: Cleaning/Inspection/Repair pipes, pump stations, & manholes.

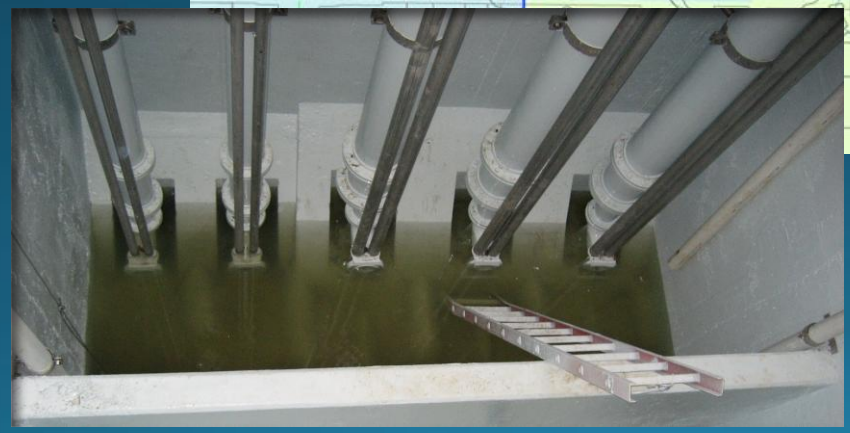
Operations – Sewer

Collection System

All sewer wastewater travels to the City's Equalization Basin/Pump Station.

The wastewater is then pumped to the Salmon Creek Wastewater Treatment Plant to be processed.





Operations – Sewer

Transmission System

"Sewer Journey" - 16-miles

START:

Battle Ground Operations Center

- 9-miles in BG Force Main
- 1.8-miles in Klineline Interceptor
- 4.9-miles in 117 St. Force Main

FINISH:

Salmon Creek Treatment Plant



Discovery Clean Water Alliance

Operations – Water

Asset Summary

- 6 Wells
- 85+ Miles of Pipe
- 6 Reservoirs*
- 3 Booster Pumps
- Clark Public Utilities Intertie

Responsibilities:

- Maintenance *(Pipes/Hydrants/Wells)*
- Testing
- Meter Setting
- Backflow Testing
- Flushing

Quick Facts

- 5 Full-Time Employees
- 1 Seasonal Employee

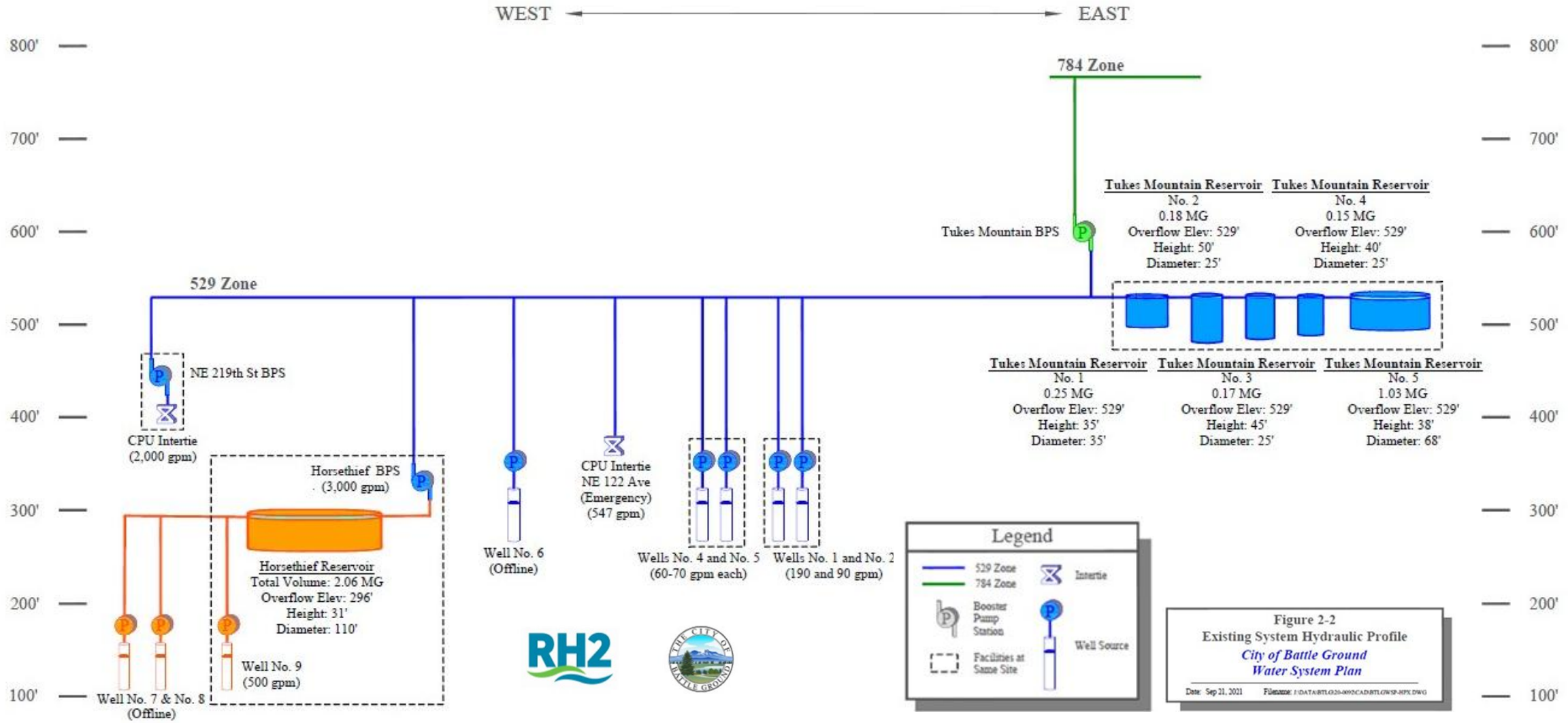


Nighttime Water Line Repair (SE 9th Circle near SE Grace Ave)

*Construction on a new 2.5-million-gallon ground level potable water reservoir on Tukes Mountain was completed in summer of 2026. This new reservoir replaced three aging reservoirs and added 1.5 million gallons of storage capacity to our system.

Operations – Water

System Configuration



Operations – Water

System Capacity

Source:
- Well 1 – 190 gpm
- Well 2 – 90 gpm
- Well 4 – 70 gpm
- Well 5 – 70 gpm
- Well 6 (2025) – 200 gpm
- Well 9 – 400 gpm
- CPU Intertie – 2,000 gpm
- CPU Intertie (2030) – 4,000 gpm

Storage:
- HTC Reservoir – 2.06 MG
- Tukes Mtn. Reservoirs – 1.78 MG
- Tukes (2026) – 1.90 MG



New Filters At Well 6 (2025)

Public Works

- ***Questions and Answers***

- ***Session 4 Preview (October 13 at City Hall)***
  - *"An Inside Look at Community Development"*
    - What is the purpose of community development and how is the department organized?
    - What is the process by which projects are reviewed and approved?
    - What can/can't the city control as it relates to development?
    - What are some notable private development projects currently under construction or review?
    - What future projects are on the horizon?

Thank You!

Mark Herceg

Public Works Director

City of Battle Ground

Office: 360-342-5070

Email: mark.herceg@cityofbg.org