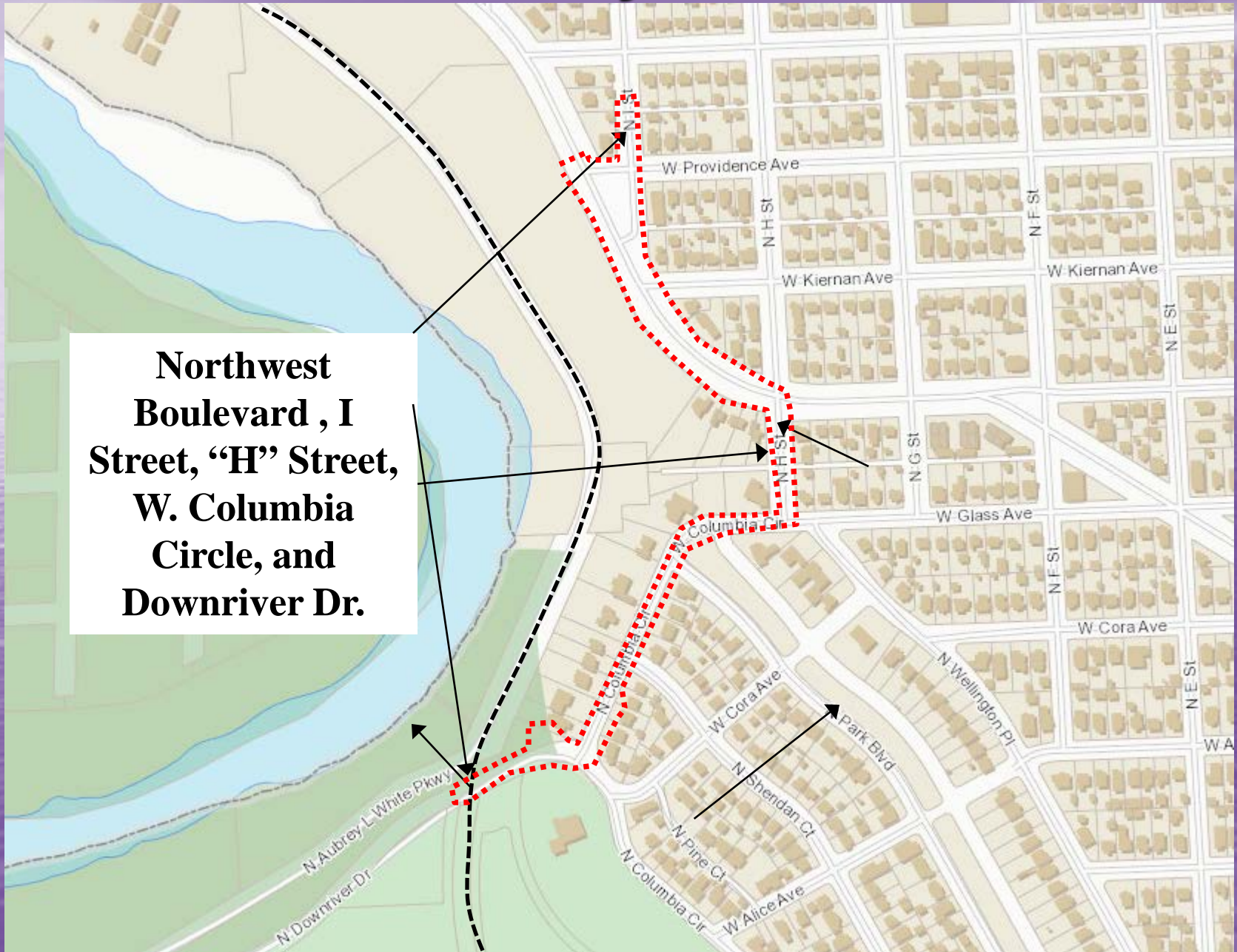


# Combined Sewer Overflow (CSO) Reduction Project Basin 6

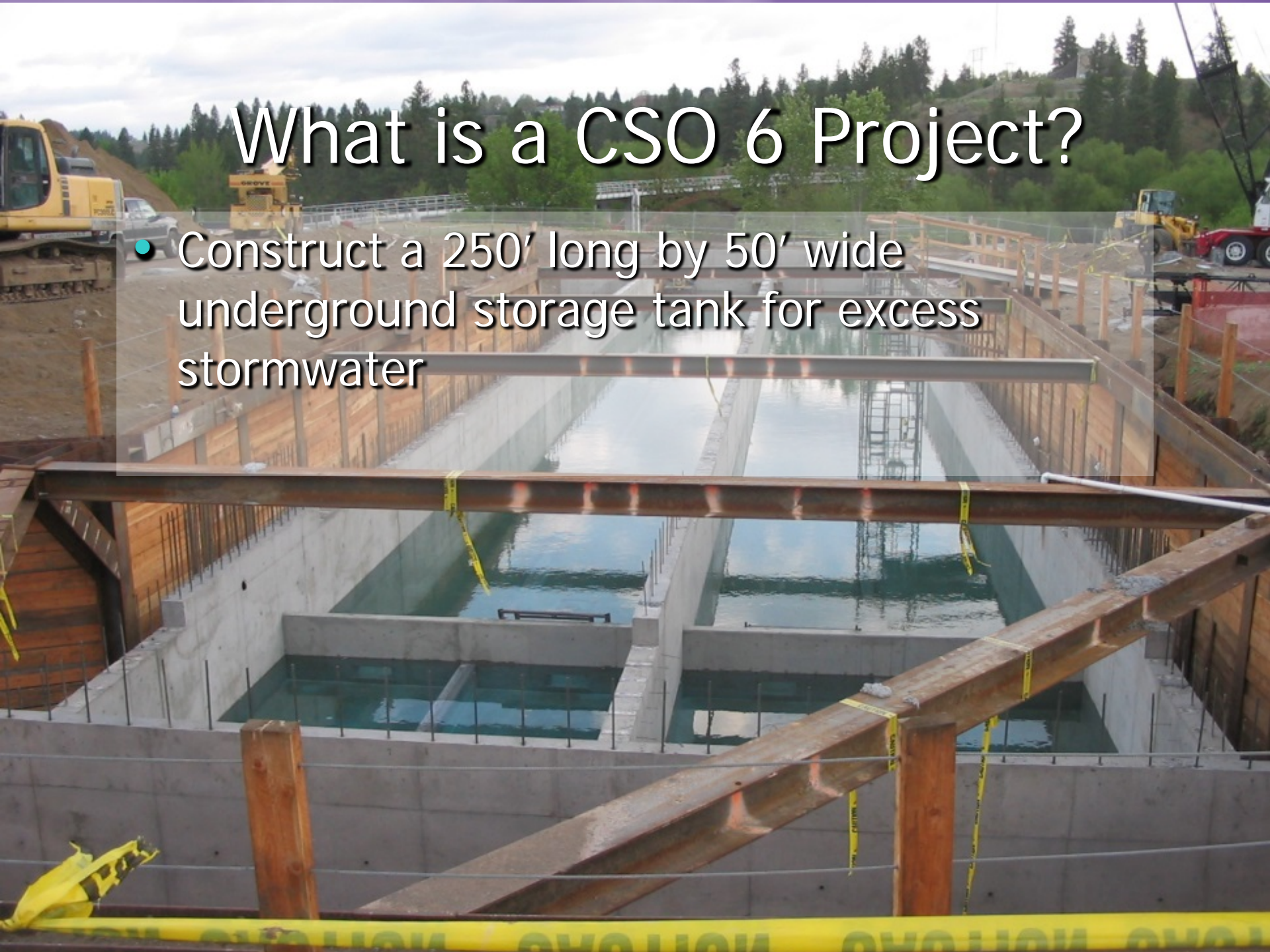
# CSO 6 Project Limits





# What is a CSO 6 Project?

- Construct a 250' long by 50' wide underground storage tank for excess stormwater





# CSO 6 Project

- New sewer main construction from Northwest Boulevard/Providence Avenue to H Street and south to Downriver Drive near N. Columbia Circle





# CSO 6 Project

- New street pavement where the tank and sewer main are constructed
- New sidewalk in some areas





# CSO 6 Project



- Restore and landscape the area
- Bench and totem pole returned



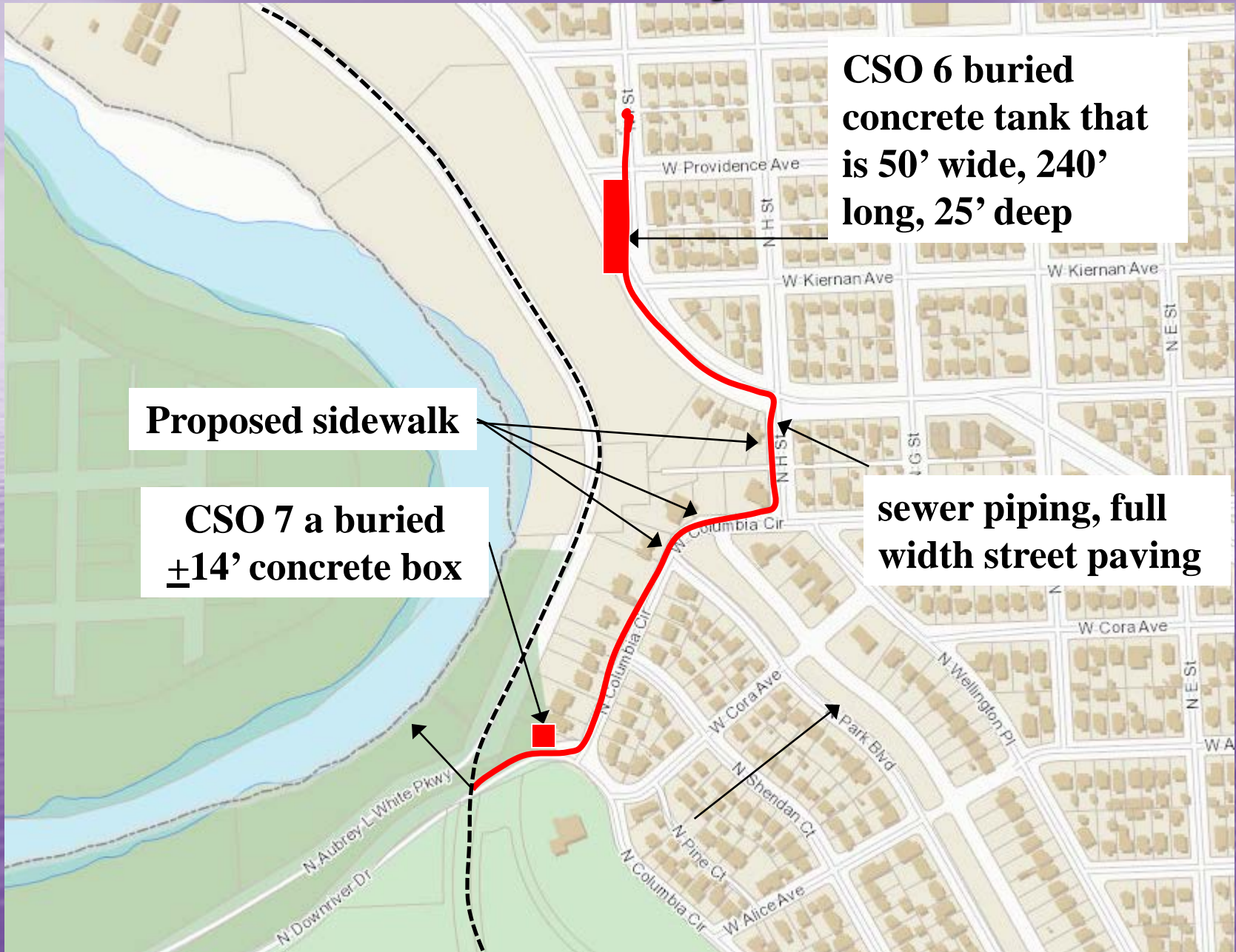
# CSO 6 Project

**CSO 6 buried  
concrete tank that  
is 50' wide, 240'  
long, 25' deep**

**Proposed sidewalk**

**CSO 7 a buried  
±14' concrete box**

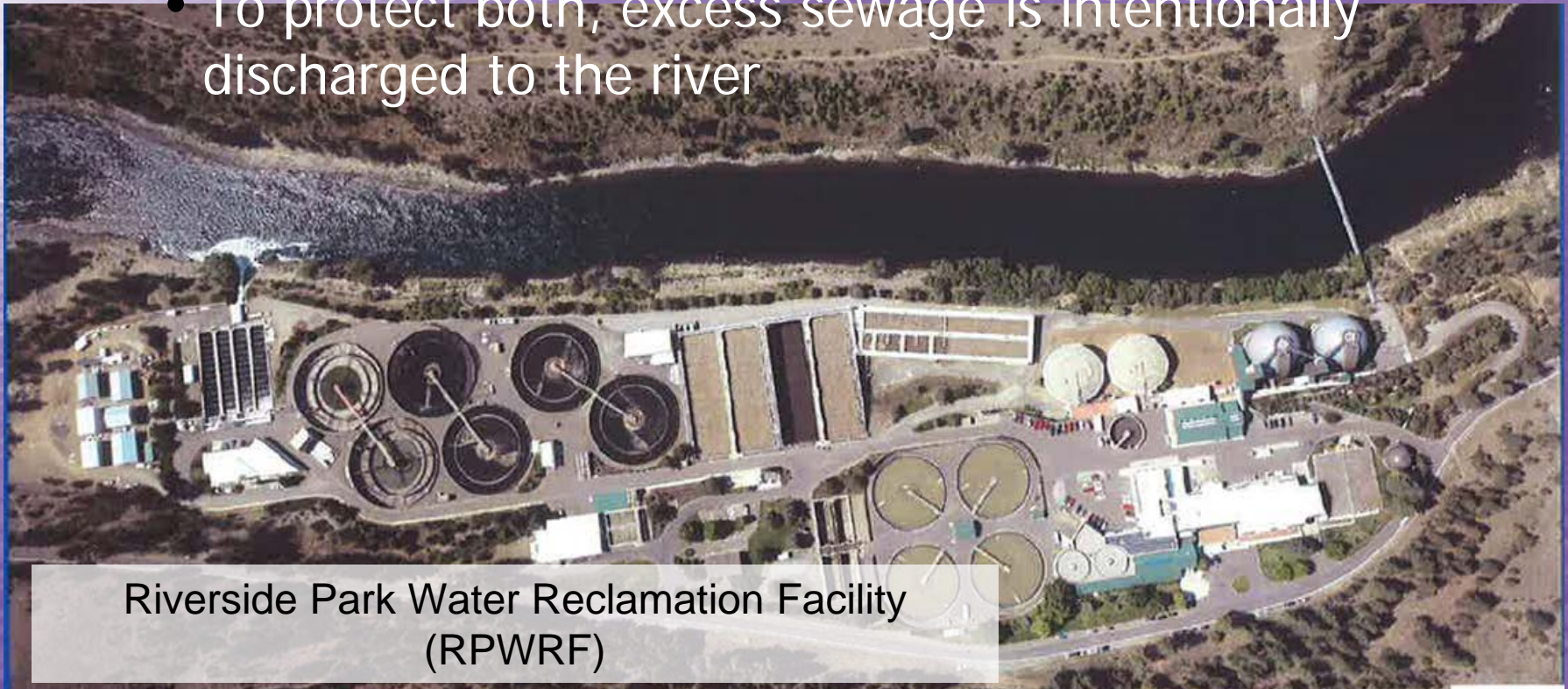
**sewer piping, full  
width street paving**





# Combined Sewer Information

- Combined Sanitary & stormwater into the same pipe
- Combined sewage overwhelms combined sewers and the treatment plant during a storm
- To protect both, excess sewage is intentionally discharged to the river



Riverside Park Water Reclamation Facility  
(RPWRF)



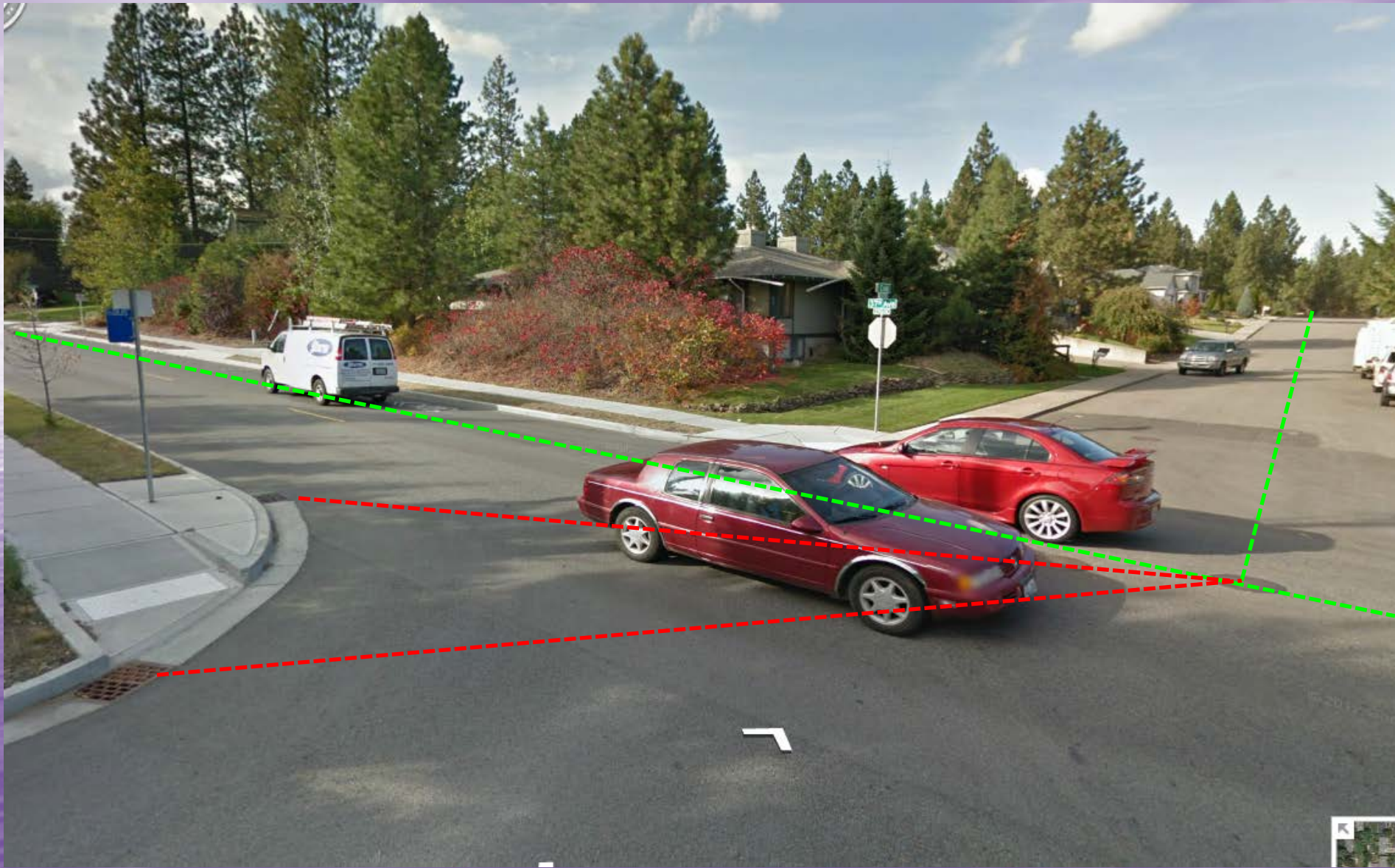
# Why build a CSO Tank?



- Compliance with EPA Clean Water Act and WAC 173-245
- CSO discharges only 1/year per outfall with EPA fines for non-compliance
- Cost - \$1,000 for 1 million gallons – current treatment cost only
- \$100 million for RPWRF upgrades to meet treatment standards



# Combined Sewer System





# Combined Sewage Overflow Reduction Basin 6

- Two types of sewer systems
  - Combined storm and sanitary
  - Separate storm and sanitary
    - Storm sewer (i.e. rainwater) discharges to river
    - Sanitary discharges to treatment plant
    - Very expensive to convert a combined system to a separated system
  - Spokane has both types of systems



# Combined Sewage Overflow Reduction Basin 6

- Alternatives to fix a combined sewer
  - Install a separate storm sewer
    - Very expensive, have to dig up every street
    - Have to do something with the water once collected, new river discharge without treatment is no longer permitted



# Combined Sewage Overflow Reduction Basin 6

- Alternatives to fix a combined sewer
  - Install a CSO tank
    - Holds rainwater for 12-48 hours during a storm
    - Slowly releases the stored water back into the sewer system after the storm
    - Least expensive, most environmentally friendly alternative in built out areas



# Combined Sewage Overflow Reduction Basin 6

- History (i.e., how did we get into this predicament?)
  - Cesspools
  - Septic systems
  - Sanitary/storm sewer systems piped to river
  - Interceptor parallel to the river with wet weather overflow



# CSO 6 Construction Schedule

## Schedule

- 12 month duration (entire project)
- Beginning Spring 2015 – anticipated start in March



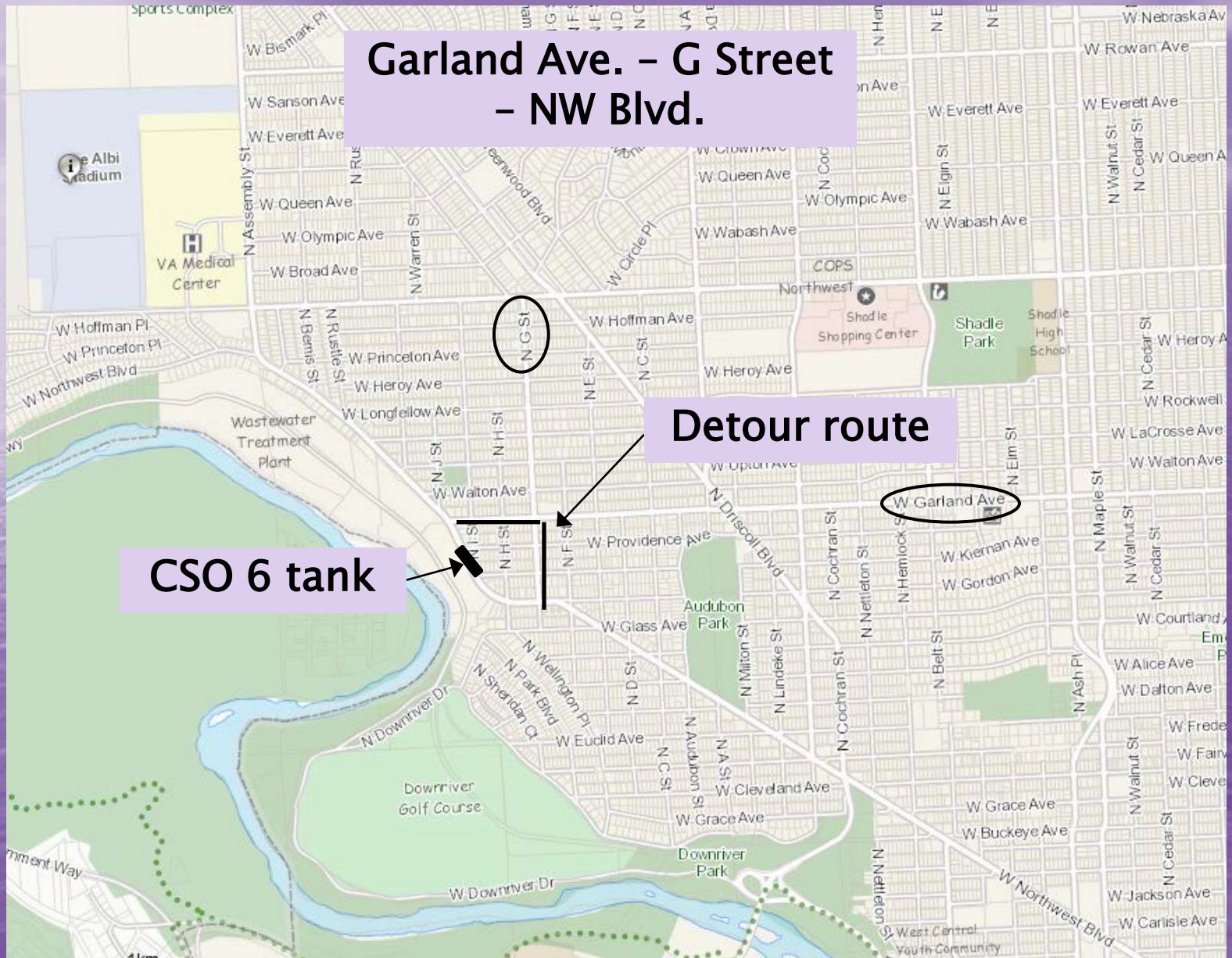
**Garland Ave. - G Street  
- NW Blvd.**

**Detour route**

**CSO 6 tank**

## Detour route

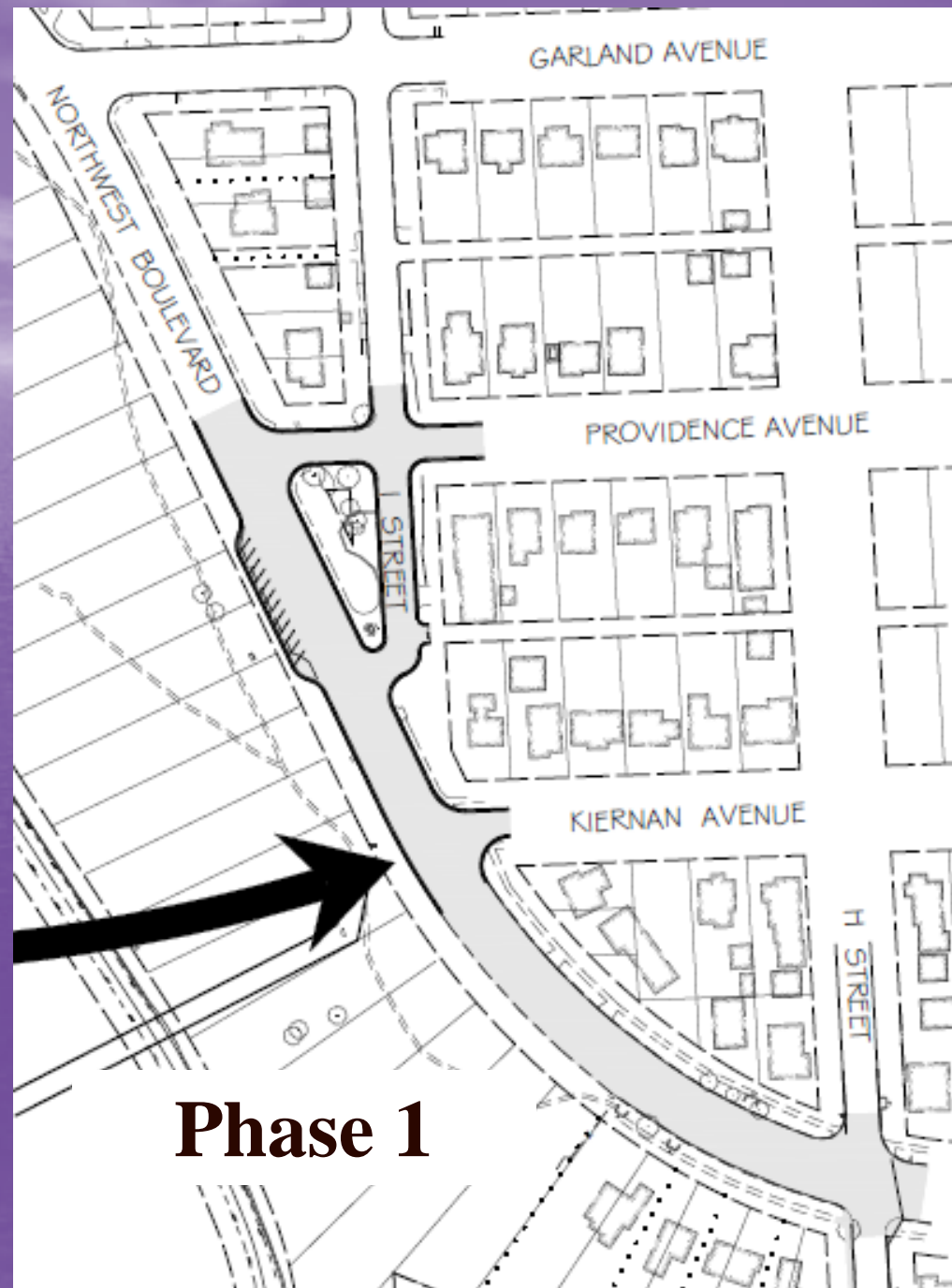
## CSO 6 tank





# CSO 6 (Phase 1) Construction

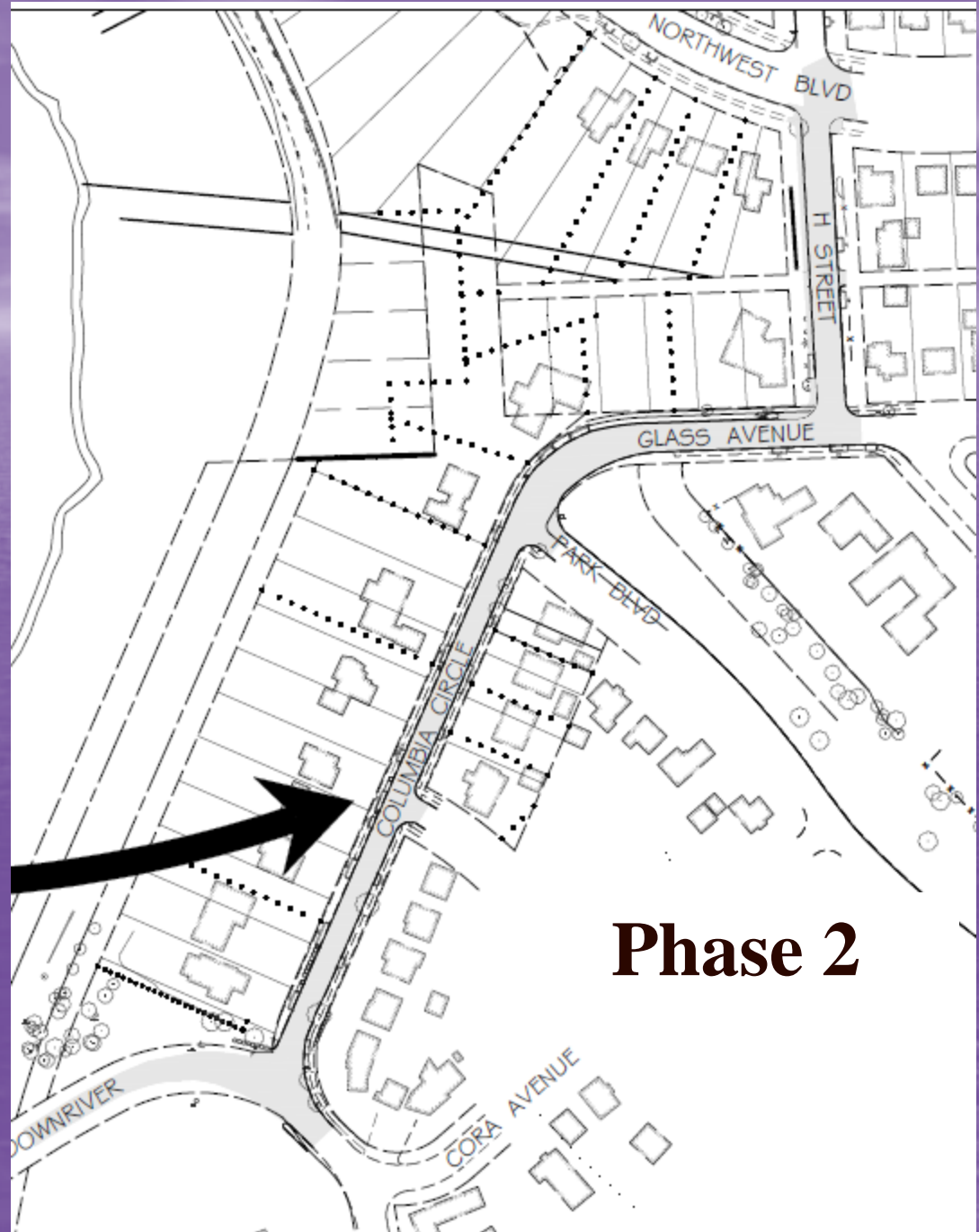
- Tank and utilities constructed
- NW Blvd. south of Garland intersection to east of H Street intersection closed to all traffic
- Local access will be provided on side streets





# CSO 6 (Phase 2) Construction Schedule

- CSO 7 installed
- Roads closed to all but local access
- 100' long trench with sewer construction moving about 200' per day
- During period hole is in front of your property, even local access is restricted
- Some access restrictions while paving is in front of your property



# Questions?

Contact:

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[ckinzer@spokanecity.org](mailto:ckinzer@spokanecity.org)

Website for more CSO information:

<http://www.spokanewastewater.org>