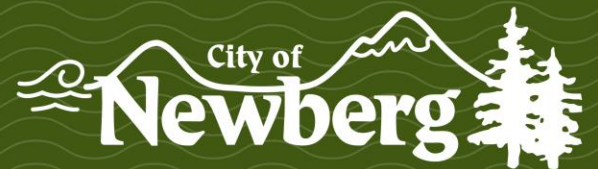
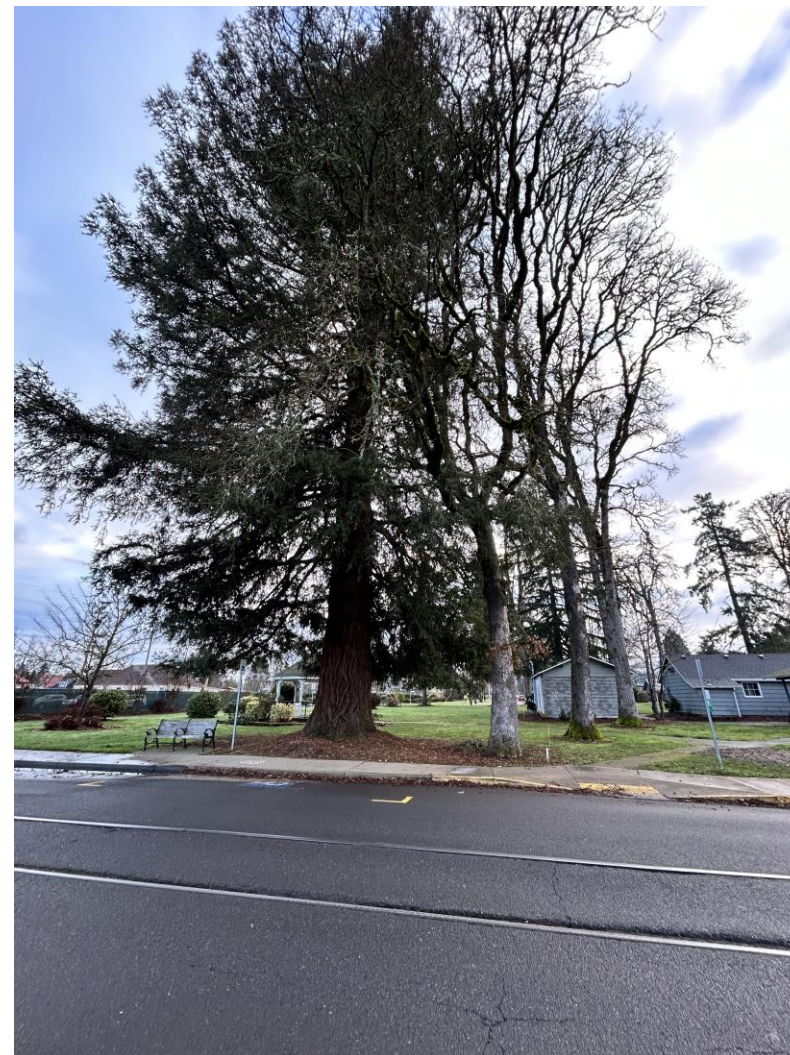


S. Blaine Street Storm Drain and trees on city property



Sequoia & Oak Tree



Sequoia – South Blaine Street

Diameter – 95 Inches \pm

Circumference – 22.5 Feet \pm

Estimated Age – 75 - 80 years

Redwoods are among the fastest-growing trees on earth. A redwood achieves most of its vertical growth within the first 100 years of its life, adding 1"+ to trunk diameter yearly

* UC Davis Arboretum



Tree Growth



2007 @ Google Maps



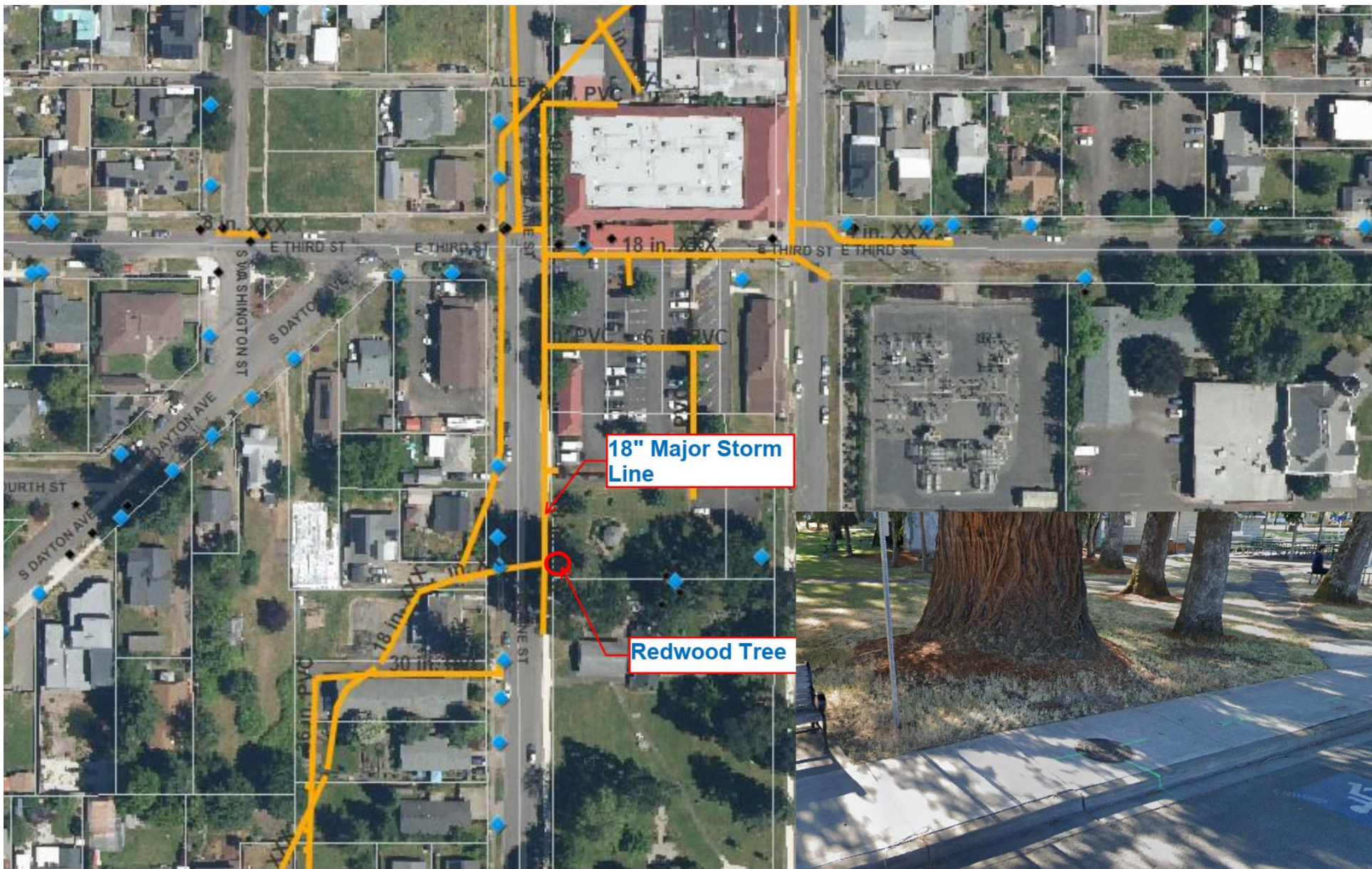
2023 @ Google Maps

Sequoia Root Structure

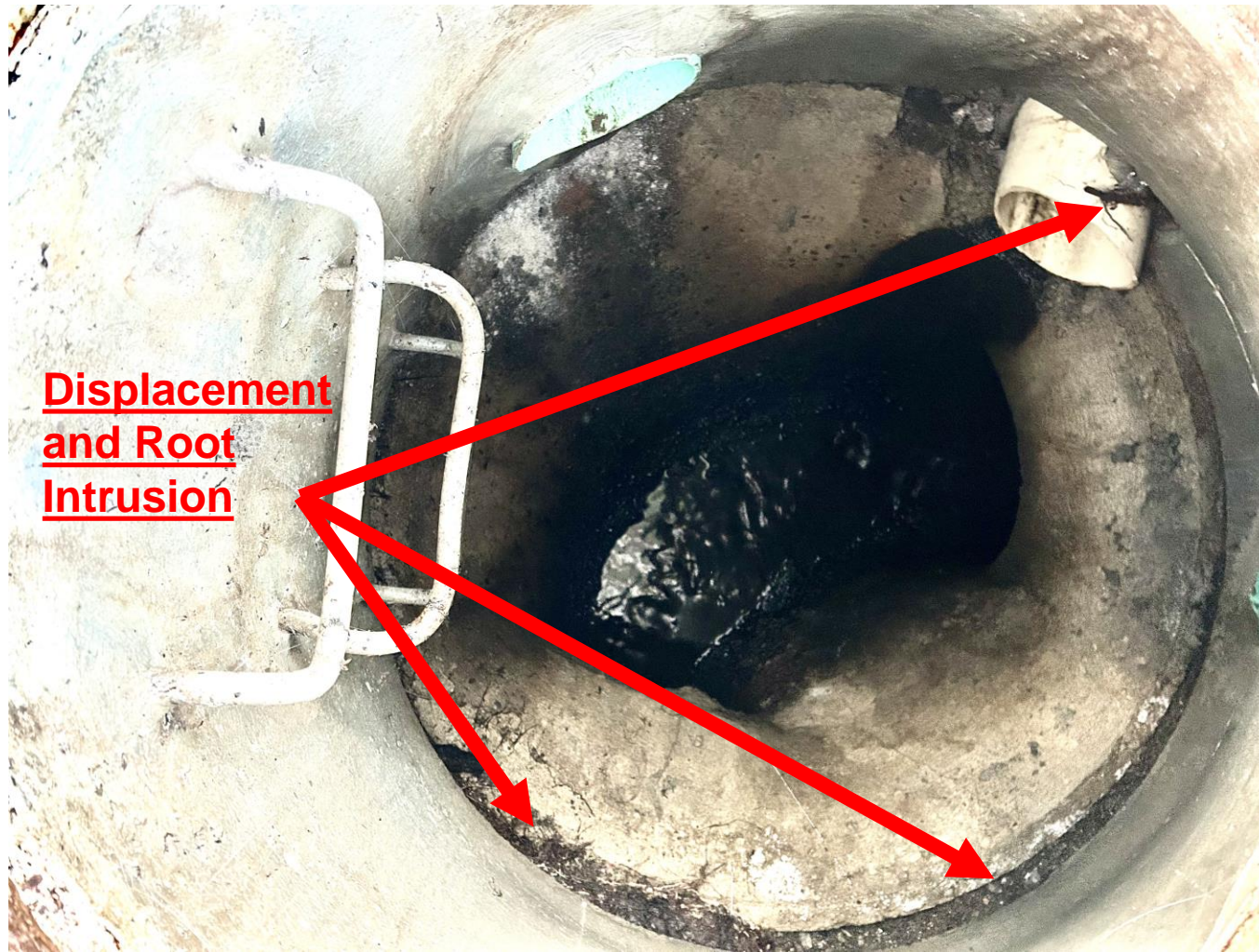
The roots are typically only 6 to 12 feet (1.8 to 3.7 meters) deep. The roots of a mature sequoia tree typically extend outwards to a distance of about 100-150 feet (30-45 meters) from the tree's trunk

* UC Davis Arboretum





Storm Manhole Section Displaced by Roots



Root Damage to Pipes



Curb & Street Damage



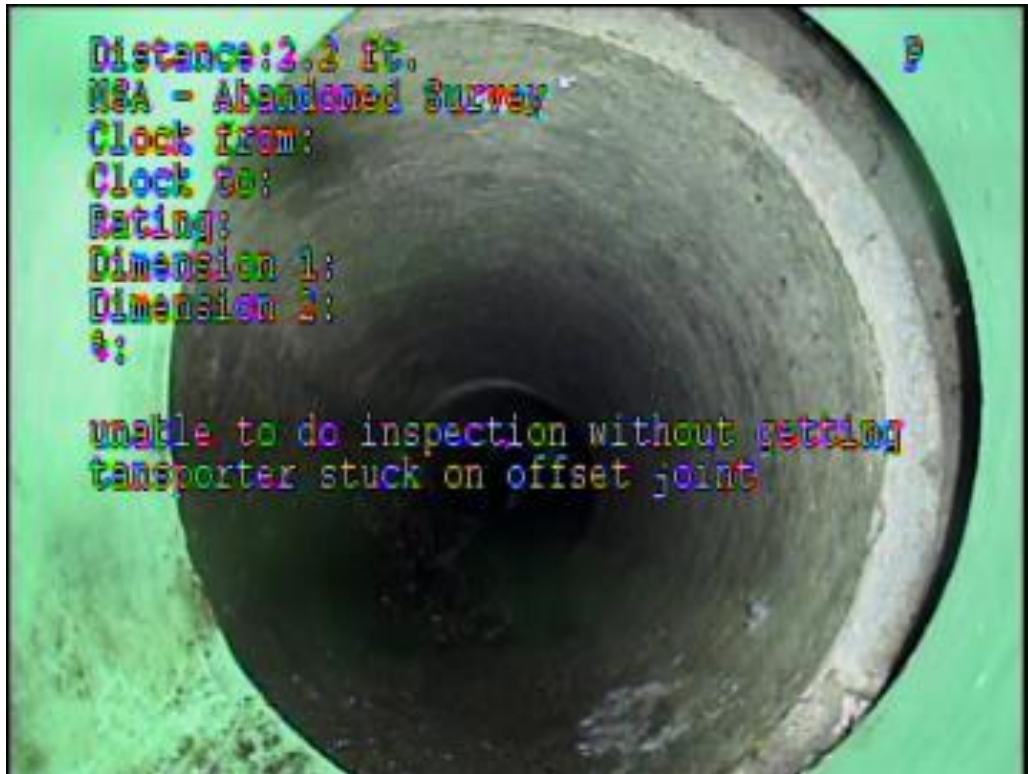
**Oak 11 Ft
from
Sequoia**

**West
Property
Line**

Current Root Damage



Current Root Damage



East Oak - 24 Feet Overbalance



East Oak – Lightning Damage





East Property Line

Arborist Report

Justin Marble, Board Certified Master Arborist, PN7775B

ARBORIST REPORT

To address concerns of safety in regard to proposed infrastructure work that would affect a large Coastal Redwood tree (*Sequoia sempervirens*) and one Oregon White Oak (*Quercus garryana*).

The report has been prepared as requested by Carl Ramseyer of the City of Newberg, 500 W Third St, Newberg, OR 97132.

COASTAL REDWOOD

Location

This tree is located near the NW corner of Memorial Park at 411 S Howard St, Newberg, OR 97132.

Condition

The tree is healthy and in good condition.

Size

The DBH is approximately 60-70" and the tree has an approximate height of 100'.

Risk

Assuming a 5-year time frame, and if no root damage is done through road work, the likelihood of failure and impact is *Unlikely*. The consequences of failure could be severe if someone is injured or killed in the event of failure. The combination of those two factors yields a **Low** risk rating.

If the proposed road work and grade changes are undertaken, the west side of the root system will be significantly damaged. Large root cuts will be unavoidable in order to achieve the grade changes proposed. The drainage in this area has been affected by the uplift created by the Redwood roots and causes flooding to happen in the street during high precipitation.

If the roots are damaged in this way, and risk is reassessed, it will likely yield a risk level of **Moderate or High**. This would require another risk assessment and documentation of the work done in the root zone. This assumes a 5-year time frame for the risk assessment.

Recommendations

I recommend removing the tree prior to the road work, if the work is already planned and in progress. If the road work doesn't happen, I don't see any reason to remove this tree currently. It provides an ecological service to the community and would last for many years to come in that location, if damage to the roots was avoidable.

OREGON WHITE OAK

Location

The tree is located just to the south of the Coastal Redwood tree at Memorial Park.

Arborist Report Continued

Condition

Fair. The tree has decent crown vigor and no signs of root/stem decay. It does have an extremely unbalanced crown, given it's proximity to other trees and position at the edge of a grove.

Size

The tree has a height of approximately 75' and a DBH of approximately 24".

Risk

In a 5-year time frame, the likelihood of failure and impact is *Somewhat Likely*. The consequences of failure could be severe if someone is injured or killed in the event of failure. The combination of those two factors yields a **Moderate** risk rating. This scenario is assuming no root cutting is performed.

If the road work is undertaken and roots are cut, the risk level would go to **High** or **Extreme**.

Recommendations

I recommend removing this tree before the road work is undertaken. Even if the work is not undertaken, the tree should be removed eventually. The risk level will increase as time goes on. There is also a possibility that root damage has been done in the past through the sidewalk multiple replacement projects.

Conclusions

The proposed roadwork will unfortunately require the removal of the two trees discussed in this report. The trees should be replaced with trees in equal or greater number at the park. There is a good site for a coastal redwood further to the east of the current location, near the gazebo.

Certification

I certify that all statements in the proceeding report are accurate to best of my knowledge and made in good faith.



November 11, 2023

Justin Marble
Board Certified Master Arborist
PN7775B
Marble Tree Service
marbletreeservice@gmail.com
503-867-1634

Questions?

