



Tybren Heights Development

City of Kelso, WA

Traffic Evaluation Report

Fuller Designs Project No. 1920

January 4, 2020

Prepared by:



645 SE Prospect Street, Chehalis, WA 98532; 520.840.3599

Mr. Mike Kardas,

Fuller Designs has prepared the following Traffic Evaluation Report for the Tybren Heights Development. This report is intended to evaluate the existing condition of Tybren Heights Road and recommend upgrades required to support this development.

The approach for developing the report has three components. First, a site visit was performed to record existing conditions and take measurements. Second, individual lots with the potential to access Tybren Heights Road were counted and driveways locations noted. Third, upgrade recommendations were developed based on current conditions and county code.

Existing Conditions

On December 4, 2019, Fuller Designs performed a site evaluation along the length of Tybren Heights Road from its intersection with Carrol Road to the proposed intersection with the New Private Road. Weather that day was rainy which also helped to identify any drainage issues. Photos of this site visit with mapped locations can be found near the end of this report.

Road Width

Tybren Heights Road is currently 26' wide and paved 700' from its intersection with Carrol Road. The road then narrows to 20' wide gravel section and stays consistent width for another 1000' to the driveways leading to 240, 248, and 250 Tybren Heights Road. After these driveways, Tybren Heights Road further narrows to approximately 14' wide. This road section progresses another 2000' to the proposed intersection with the new Private Road. Evaluation beyond this intersection was not performed.

Road Grade

Grade encountered during site evaluation indicated maximum 8% grade throughout the paved and 20' gravel sections. Maximum grade on the 14' section was 10.5%

Shoulder and Ditch Condition

Shoulders and ditches in the paved section of Tybren heights seem to be well maintained and in good working order. Fresh maintenance rock was present in portion of this ditch and vegetation present had been manicured by adjacent homeowners. Shoulders in the 20 gravel area were covered with fresh leaves and grasses however were firm and unyielding. Ditches in this area were in good working condition with a minor amount of overgrown vegetation. Shoulders in the 14' gravel section are firm and but covered with grass and other overgrowth. Ditches are set back away from the paved surface which is ideal for widening.

Drainage

Throughout the road length, 6 culverts were observed. These culverts are in good condition and were flowing as intended during the rain event. Culverts were positioned properly to cross runoff from the uphill sides of Tybren Heights Road and disperse it to the natural drainage paths below. No ponds, swales, infiltration trenches, or other proper drainage facilities were observed during the evaluation.

Lot and Traffic Count

A map and count of lots potentially accessing Tybren Heights Road can be found near the end of this report. There are 36 lots that may access Tybren Heights. Of these 36 lots, 12 will access beyond this project limits and were not evaluated. 4 lots near the beginning of Tybren Heights Road are currently served by a Class A Paved Road. 3 lots in the County are addressed lots (240, 248, and 250 Tybren Heights) and are served by the 20' gravel section that meets Class B standard. The remaining lots are currently not addressed, including lots for this development. These unaddressed lots are not served by an access meeting County Standard.

Traffic count is expected to be 10 trips per lot. With 24 lots prior to the end of the project, total trips are expected to peak at 240 trips per day passing through Tybren's intersection with Carrol Road. During the site visit a 3-hour window (1pm to 4pm) was evaluated for traffic moving through the Carrol/Tybren Heights Intersection. During this window a total of 2 trips were logged through this intersection.

Conclusion and Recommendations

The first 700' of Tybren Heights Road is currently consistent with a Class A County roadway. The next 1000' is consistent with a Class B County roadway. Please note that this finding is consistent with county lots in the region. The last 3 lots on this road to be addressed is 240, 248, and 250 Tybren heights road. Driveway access for these lots are approximately 1700' from the intersection with Carrol Road and were allowed to be addressed because a proper County road was constructed to serve them. While access does exist, the remainder of Tybren Heights Road does not meet County private road standards.

In order to serve this development, widening of Tybren Heights road must be performed. The road must be widened to a class B standard for another 1000' up to the driveway for property parcel 241242800. Tybren Heights must be upgraded to Class C status from there up to the intersection with the new private road being proposed for this development (Dorothy Lane). These findings have been incorporated into the plans for the upgrade of Tybren Heights Road.

Feel free to call or email if you have any questions.

Sincerely,



Aaron Fuller, PE
Fuller Designs
520-840-3599 – Cell
afuller@fullerdesigns.org

Included: Lot maps and site photo logs

Photo Logs

Photo #1

Intersection of Tybren Heights and Carrol Road.



Photo #2

Paved section near 127 Tybren Height Road.



Photo #3

End of paved section near 135 Tybren Height Road.



Photo #4

Gravel section
near 135
Tybren Height
Road.

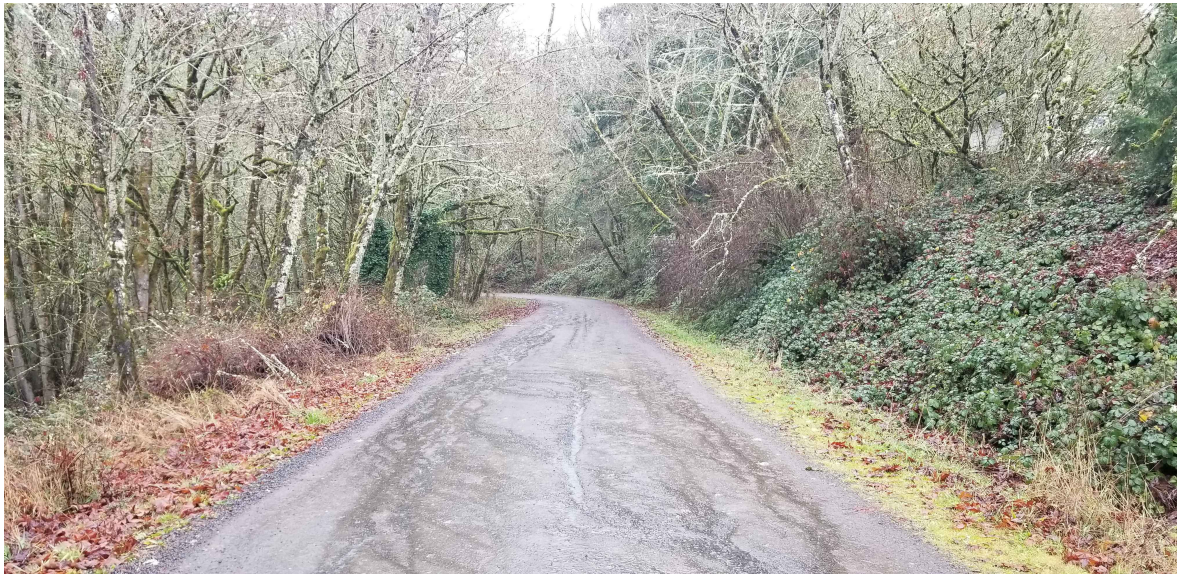


Photo #5

Bend in gravel
section near
135 Tybren
Height Road.



Photo #6

20' gravel
section near
240 Tybren
Height Road.



Photo #7

14' gravel
section near
240 Tybren
Height Road.



Photo #8

Road gate near
parcel
#241242700



Photo #9

14' road
section near
parcel
#241242400



Photo #10

14' road
section near
parcel
#241241500
(lot 13)



Photo #11

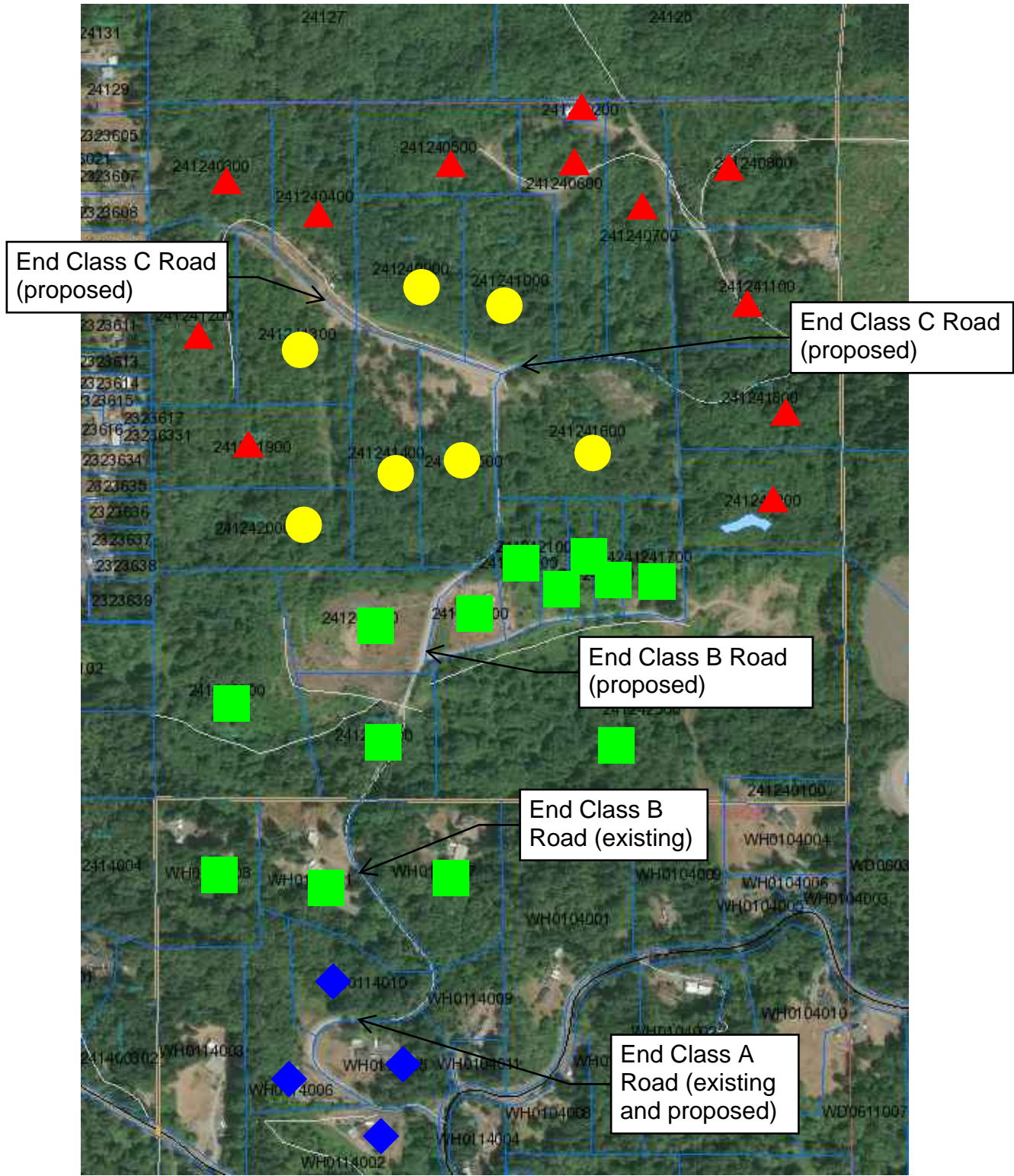
Tybren Heights
Road and New
Private Road
intersection
near parcel
#241241500
(lot 13).
Looking south



Photo #12

Tybren Heights
Road and New
Private Road
intersection
near parcel
#241241500
(lot 13).
Looking west





Legend

	Description	Quantity
◆	Class A Service	4
■	Class B Service	13
●	Class C service	7
▲	Lots Beyond Project Limits	12