



## Memorandum

**To:** Woodburn Development Review: Chris Kerr, Community Development Director

**From:** Chuck Green, PE 

**Copies:** File

**Date:** June 1, 2022

**Subject:** Review of US Market Revised Traffic Impact Study (CU 21-02)

**Otak Project #:** 40141

This memo serves as my review of the May 26, 2022 revised traffic impact analysis report prepared by Transight Consulting. This revised analysis document focuses on comments submitted by ODOT, Otak, the public and Kittelson and Associates. I am providing review comments based on the points raised in their new document.

- ODOT Access Restrictions and Alternative Cross-Circulation concepts

Figure 1 in their document proposes a cross-access easement configuration with adjoining parcels to the west and to the east, running from Evergreen Road to Oregon Way, combined with what appears to be a new shared-access driveway onto OR 214 on the west side of Tax Lot 3700, shared with the Dairy Queen/Dutch Brothers lots to the west. They state that their understanding of the grant of access to ODOT for Tax Lot 3700 (exclusively) precludes Tax Lot 3600 from using that access, but there is nothing in the deed restrictions that preclude Tax Lot 3700 from building a new access through Tax Lot 3600 to Oregon Way and, implicitly, preclude Tax Lot 3600 from accessing the new shared driveway to OR 214 to the west.

Casey Knecht (ODOT) commented on May 4, 2022 that "Both site plans allow for vehicles to enter tax lot 3600 (2540 Newberg Hwy) via tax lot 3700 (2600 Newberg Hwy) which is in violation of the access rights listed in the deeds." As I understand this, vehicles from Tax Lot 3600 would be able to travel through the joint access between the two lots to the Right-in/Right-out (RIRO) driveway onto OR 214 from Tax Lot 3700, which would technically violate the deed restrictions for both tax lots. The Transight statement in the new TIA does not address how their cross-circulation proposal avoids this violation, as the shifting of access to a shared access just to the west of the current RIRO driveway would still need ODOT approval and approach permit, and they Applicant would need to be successful arguing to ODOT that the existing RIRO driveway would be closed and replaced with this new, shared access and thus, they would need to argue that this new shared access driveway does not have the same deed restriction as the current driveway.

Additionally, they have not presented any evidence that the properties to the west, not subject to the site development proposal, have agreed to this chance of access and granting of shared access easements.

They do present a new option, Access Option 2, which is to provide an eastbound "out only" connection between Tax Lot 3700 and Tax Lot 3600 that they argue would not violate the deed restrictions as Tax Lot 3600 would not have access to the RIRO driveway. They present a rather unique driveway concept to preclude trips destined for Tax Lot 3600 from using the Tax Lot 3700 RIRO driveway onto OR 214 to travel to Tax Lot 3600. A snip from Figure 3 in that document is below. My understanding is that this would be an interim application until such time that ODOT approves removing the deed restrictions noted above. This would require some "trigger" mechanism to require whoever controls the site after development approval and occupancy to make the changes to a more common shared access and remove the turn restrictions from the driveways.

While this technically appears to avoid the deed violation, ODOT will need to weigh in on whether they would accept this.

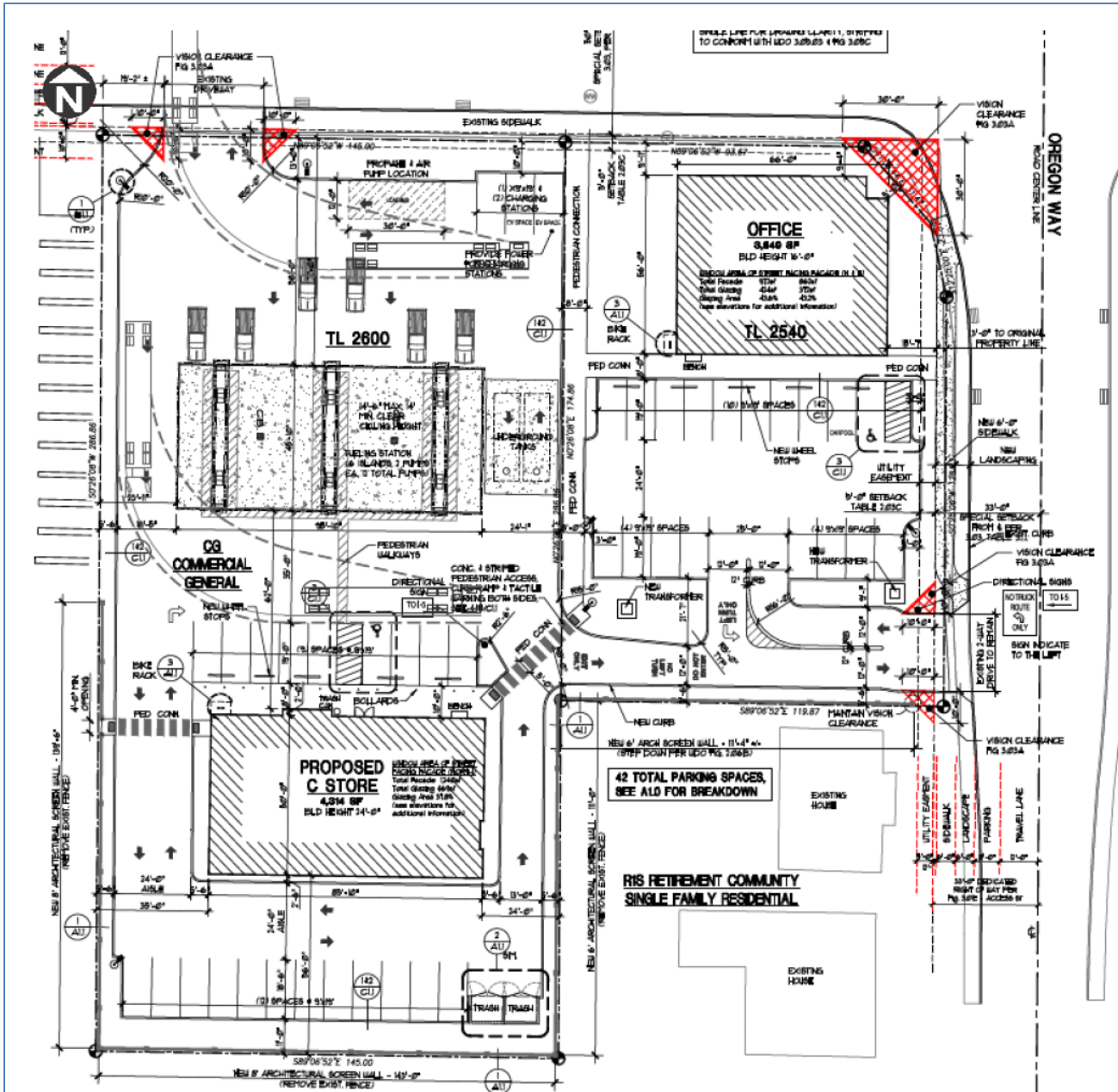


Figure 3. Site Plan Access Option 2 (prevents access from tax lot 3600 to the OR 214 access).

Access Option 3 (Figure 4, shown below) is presented to allow access to Tax Lot 3700 from Oregon Way to “reduce reliance on u-turns” on OR 214 to access the site. The option, while appearing to prevent the deed restriction violation, results in a rather confusing driveway operation without guarantee of enforcement of which way vehicles turn, and will increase the risk of driver confusion with an unusual combination of turn restrictions.

**I advise not to approve this option.**

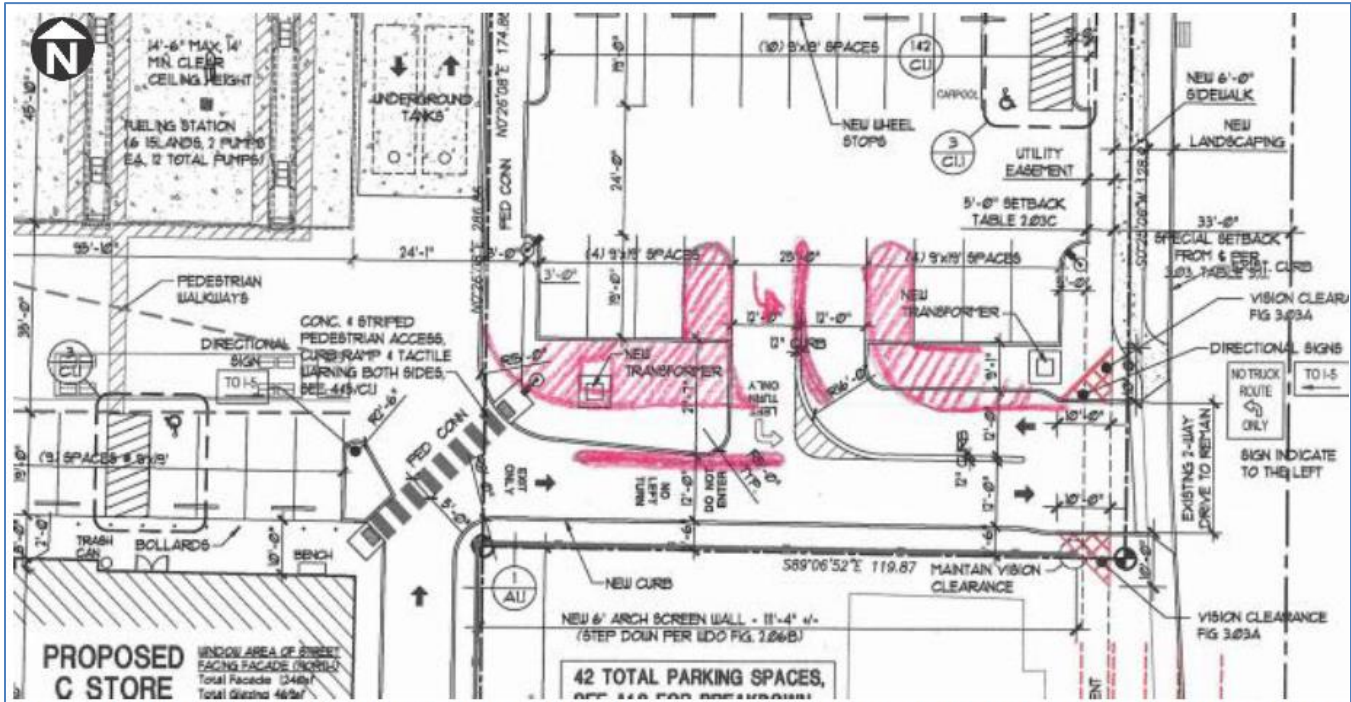


Figure 4. Potential access modifications to better support westbound OR 214 access via Oregon Way (Access Option 3).

- Revised trip generation based on updated square footages.

A revised trip generation analysis is presented which reaches a conclusion that the site plan will *reduce* overall PM peak trips while still resulting in a net increase in AM peak and weekday trips. The primary reason for this reduction is using the ITE 1th Edition Trip Generation Manual and a reduction in the office and convenience “center” size.

Using the ITE 11<sup>th</sup> Edition Trip Generation query tool, and average rates for a 12 vehicle fueling position (VFP) service station, my calculations are different from theirs, with a higher weekday yield and lower AM and PM peak yields:

- Weekday trips (without pass-by adjustment):
  - Transight: 3,086 trips
  - Otak: 3,181 trips
- AM Peak trips (without pass-by adjustment):
  - Transight: 324 trips
  - Otak: 193 trips
- PM Peak trips (without pass-by adjustment):

- Transight: 273 trips
- Otak: 221 trips.

**Transight should review and if necessary, revise their trip generation table accordingly. This will affect the trip distribution and site traffic assignment numbers accordingly.**

**I do concur that there is a net increase in weekday trips, and a net decrease in PM peak hour trips.**

- The revised TIA states that the access revisions as noted above (Access Options 2 and 3) would reduce the potential of vehicles turning from the RIRO driveway onto eastbound OR 214 and then weaving across two lanes of the highway to turn left or make a u-turn at Oregon Way.

I concur that while these options theoretically alleviate the potential of these “weaving trips”, Access Option 2 needs concurrence from ODOT that it would not violate the deed restrictions, and I am recommending against approving Access Option 3.

- The TIA did not address intersections east of Oregon Way along OR 214.

The revised TIA notes “very few (net) new trips traveling east on OR 214”. This may be true for the PM peak, but the AM peak needs revising. This could absolve them of proportionate share contributions toward the mitigation project to alleviate future conditions at Settlemier where the mobility threshold is exceeded, but not at the OR 214 intersection with OR 99E, which has an *existing* elevated crash rate. With a net increase in at least weekday trips, that would still result in the site adding trips which could exacerbate this elevated crash rate condition. They should propose a proportionate share based on their contribution toward the *weekday* trip totals at this intersection.

- The City is collecting proportionate share mitigation in-lieu payments and the Applicant awaits the methodology and SDC implications.

The proportionate share contributions for which the City has been collecting payments in-lieu as mitigation are generally either toward projects not included in the TSP, or safety improvement projects for which the City is not collecting SDC payments. **I do concur that the mitigation calculations should be based on the *net new trips*.**

Additionally, since mitigation in-lieu payments are being collected for OR 214 at Settlemier and OR 214 at OR 99E, a new analysis of these intersections is not necessary, just a tracking of net new trips from this site using these intersections is the only information requested.

- Public comments

These relate to e-vehicle charging stations and the safety of vehicle maneuvers turning onto and using OR 214. I have no further comment related to the e-vehicle charging stations. I do note that the response related to maneuvering vehicles is covered above with the discussion on the various access options.

**“Opposition Engineer” comments from Wayne Kittelson of Kittelson and Associates.**

They did provide response and some commentary related to Mr. Kittelson’s letter. I will not respond to the commentary provided by Transight.

The following are my comments related to their response:

- *Opposition Argument #8: The “opposition engineer” argues that the traffic study for the US Market did not include trips associated with Project Basie and should be revised to include these as in-process trips.*

Project Basie has been approved, US Market has not. The reference to a memo submitted to city staff in July 2021, with no apparent response, does not change the fact that there was never a scoping approved for a TIA for this site, and such a scoping request would have yielded Project Basie as a pending in-process development. **The TIA analysis should be revised to include Project Basie trips.**

- The US Market revised TIA indicated they had made an incorrect citation for collecting baseline traffic counts, and in fact had collected counts in June 2021.

A comparison they provided of counts from April and June 2021 for the OR 214 at Evergreen intersection indicated that counts are very close to each other, but they did not address whether the impacts of COVID-19 are still affecting traffic volumes like they did early in the pandemic.

A comparison I provided in my earlier memo on the previous TIA indicated that there has indeed been substantial traffic growth from 2019 (pre-pandemic conditions) to 2021. **Thus, using June 2021 counts for baseline conditions is acceptable without any further adjustments for COVID-19 impacts.** See table below.

Seasonally Adjusted Counts, Total Entering Vehicles				Growth (Pcts)	
	2016	2019	2021	2016-2019	2019-2021
Intersection					
I-5 SB Ramps, AM Peak	1,549	1353	1,583	-12.7%	17.0%
I-5 SB Ramps, PM Peak	2,648	2975	3,152	12.3%	5.9%
I-5 NB Ramps, AM Peak	2,180	1954	2,392	-10.4%	22.4%
I-5 NB Ramps, PM Peak	2,903	2978	3,315	2.6%	11.3%
Average				-2.0%	14.2%

- “Opposition Argument #10: Queuing Analysis: The opposition engineer argues that a queuing analysis was not performed for the US Market site and expresses concern that queue blockages of the existing driveway access on OR 214 could lead to an unsafe situation where the driveway is blocked by queues.”

Transight did refer to queuing analysis for intersections in their original TIA; however, there was no formal “queuing table and analysis” typically shown in other TIAs and instead appears to need to be gleaned from the Synchro reports contained in the Appendix.

They also analyzed queuing at their RIRO driveway onto OR 214. Queuing at OR 214 and Evergreen Road, and at other critical intersections, was addressed in their response. There are extensive queues along OR 214 at several intersections under existing conditions as well as with in-process traffic being added. The larger issue is one of the elevated crash condition at intersections along OR 214 and mitigation payments toward improvements at these intersections, some of which may alleviate some of the queuing issues along the corridor. The issue of eastbound queues on OR 214 blocking the RIRO driveway exit during PM peak hours is a concern that would be **alleviated with shared access from the Tax Lot 3700 site that allows exiting trips to travel to Oregon Way to then get to OR 214 without having to enter and maneuver within traffic queues.**

- “Opposition Argument #11: Evergreen Avenue Intersection: The opposition engineer argues that operational issues noted within the US Market TIA at the OR 214/Evergreen Avenue intersection should require similar pro-rata payments to what was required of Project Basie.”

Transight uses a land use argument to avoid the contribution that others such as Project Basie have been required to make at this and other intersections along OR 214. They also provided a level-of-service table for 2023 that shows quite different operational results (LOS, V/C) than recent studies have concluded for that intersection. Their original TIA showed a Year 2033 conditions table which indicates a forecast exceedance of the mobility threshold at this intersection.

Due to time limitations, I am not able to pinpoint what they did in their analysis to reach quite different results than several other recent TIAs concluded for that intersection. However, in the end, this is not a land use argument; it is an intersection with an elevated crash rate, which would be exacerbated by net new trips from this site. Thus, they should revise their trip generation numbers and accordingly, their net impacts to this intersection.

#### **Mitigation for Impacts to Intersections With Elevated Crash Rates or Mobility Threshold Exceedances**

This was included in my earlier review memo and is updated for informational purposes.

#### **Oregon 214 at Oregon Way/Country Club Road**

The TIA identified the intersection of OR 214 and Oregon Way/ Country Club Road as having an existing elevated crash rate that exceeds ODOT's 90th percentile crash rate for these types of intersections. Potentially adding trips could exacerbate this condition. However, within the past month ODOT has converted the east-west left turn signal from flashing yellow arrow to protected left turns, and has indicated this modification was to alleviate the elevated crash rate condition. Thus, with this signal modification in place, no mitigation requirement would be placed on US Market to contribute toward mitigating the elevated crash rate condition.

The following discussion provides for mitigation conditions for other intersections along OR 214:

#### **OR-214 and I-5 northbound ramps – elevated crash rate**

The TIA indicated this intersection has an existing elevated crash rate, which has been confirmed by other recent TIAs in the vicinity. Project Basie was conditioned to provide a proportionate share contribution of \$10,000 toward a future safety improvement project at this location. Based on a comparison of trip impacts, the US Market share of a signal study and signal timing improvements to alleviate the crash rate issue at the interchange is a reasonable minimum share of \$1,000, based on their weekday net new projects at this intersection.

#### **OR-214 and Evergreen Road – elevated crash rate**

Allison Way Apts. was conditioned to provide a proportionate share contribution (fee-in-lieu) of \$15,000 toward a signal/intersection study and improvement to alleviate the crash condition for the 67 additional PM peak hour trips added to that intersection. US Market should be conditioned similarly, based on their net new trip contribution to weekday traffic volumes.

**OR-214 and Settlemier – mobility threshold exceeded in 2040**

As noted above, the revised TIA did indicate a net reduction in PM peak hours trips at this intersection when accounting for previously-approved trips generated by this site. I concur that this site appears to be reduction net overall PM peak trips using this intersection, and thus a mitigation contribution is not required.

**OR-214 and OR 99E – mobility threshold exceeded in 2040; elevated crash rate today**

The with-site trips incorporated into 2040 background traffic based on previous traffic impact analyses will result in this intersection exceeding ODOT's volume-to-capacity and the City's level-of-service ODOT thresholds.

There is a current TSP project and a different mitigation project contained in the Woodburn Eastside Apartments development traffic impact analysis, each of which are estimated to cost approximately \$1,100,000.

Woodburn Eastside Apartments was conditioned to contribute an approximate 10.1% share of the cost of the mitigation project as a condition of approval, or approximately \$111,000. This was based on the site generating an additional 84 PM peak hour trips through the intersection.

The US Market site appears to be contributing net new AM Peak and weekday trips to this intersection, and thus exacerbating a condition that occurs over the course of an entire day, not just PM peak. Therefore, they should contribute a proportionate share based on weekday trip contribution to this intersection.