

DRAFT MEMORANDUM

Date:	September 30, 2016	TG:	16125.00
To:	Angie Silva – Kitsap County Commissioners Office		
From:	Stef Herzstein, PE, PTOE – Transpo Group Jessica Lambert – Transpo Group		
cc:	Erik Rundell – ECONorthwest		
Subject:	Existing Transportation Review: Central Kitsap Community Campus		

Kitsap County is considering redevelopment of the Central Kitsap Community Campus (herein CK Campus) located in Silverdale, Washington. This memorandum documents the existing and future planned transportation conditions within and surrounding the CK Campus that should be considered in evaluating redevelopment alternatives.

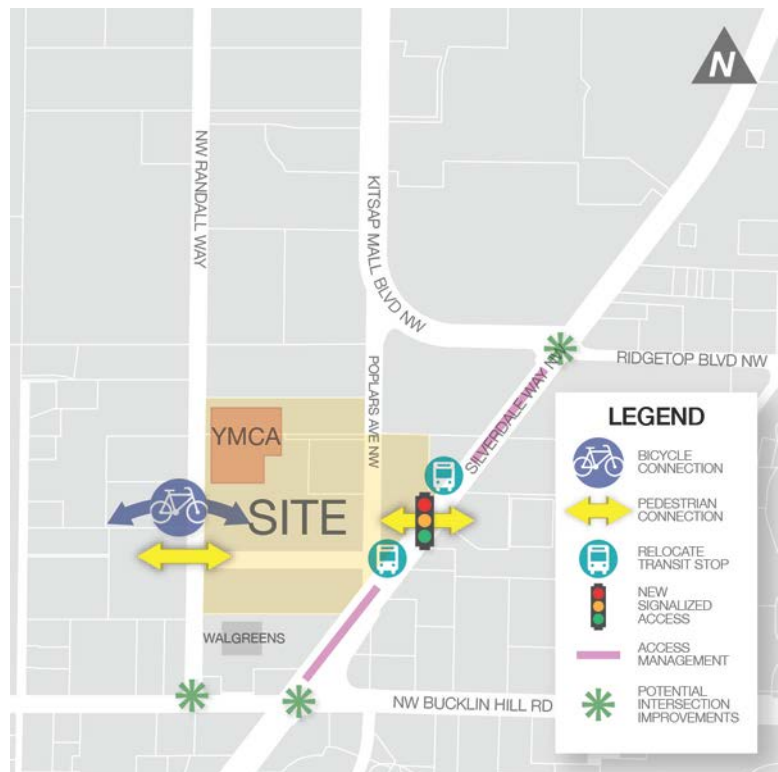
Key Findings

Figure 1 summarizes key elements to consider in the design of the redevelopment plan. Based on a review of existing conditions and future plans for the vicinity of the site, consideration should be given to the following opportunities in developing the CK Campus:

- **Site Access.**

- Consider moving the existing Silverdale Way NW access north to align with the existing Burger King access at a new signalized intersection. Provision of this new signalized access could reduce mitigation measures that may otherwise be necessary at off-site intersections by reducing vehicle traffic through adjacent intersections. It also provides a signalized pedestrian crossing of Silverdale Way NW that is more proximate to the site and transit access.
- Access management such as c-curb or turn restrictions along Silverdale Way NW should also be considered to reduce driveway conflicts and congestion related to vehicles entering and exiting the traffic stream.

Figure 1 Summary of Key Considerations



- **Off-Site Improvements.**
 - Additional turn lanes and signal upgrades may be needed at the Silverdale Way NW/Kitsap Mall Boulevard NW/Ridgetop Boulevard NW, NW Randall Way/NW Bucklin Hill Road, and Silverdale Way NW/NW Bucklin Hill Road intersections.
 - Providing a signalized access along Silverdale Way NW could reduce impacts to these intersections and potentially the level of improvements needed.
- **Non-motorized.**
 - Sidewalk widths along the frontage should meet or exceed Kitsap County Road Standards and consideration may be given to providing wider sidewalks and/or buffers between pedestrian facilities and the travel way to encourage walking to and from the site especially along Randall Way NW and Silverdale Way NW.
 - Pedestrian pathways and on-site connections should be designed based on the Campus Design guidelines including a minimum width of 8-feet for primary pathways and 5-feet for secondary pathways.
 - Consider converting Popular Avenue to a pedestrian oriented street and potentially providing traffic calming measures or one-way circulation.
 - Consider ADA accessibility with frontage improvements and on-site design.
 - Provide bicycle facilities on-site and connects to planned on-street facilities along NW Randall Way.
 - Allow for pedestrian crossings at a potentially new signalized access with Silverdale Way NW.
- **Transit.**
 - The two transit stops along Silverdale Way NW may need to be relocated if a new signalized driveway is provided aligned with the existing Burger King access.
 - Transit connectivity should be focused along NW Randall Way where the majority of service is located.
- **Future Traffic Volumes.** Leverage the Kitsap County travel demand model to determine growth rates and/or forecasts in evaluation of future traffic operations.
- **Parking.**
 - Consistent with the CK Campus design guidelines, share parking amongst uses on site to reduce the overall parking supply.
 - Consider land uses with complimentary parking peaks to maximize shared parking.
 - Potentially revisit the amount of dedicated parking for the YMCA especially relative to the maximum supply of 400 spaces.
 - Design parking for efficient use of space (maximize stall count), minimize conflict points, and improved safety for both pedestrians and vehicles.
 - Consider a parking design that orients drive aisles to better align with primary pedestrian routes to the building access points to reduce potential conflicts between vehicles and pedestrians.
 - Provide for pedestrian scale lighting.
 - Ensure parking is designed for ADA accessibility.

Background

Development of the CK Campus is consistent with the policies and guidelines outlined in the *Kitsap County Comprehensive Plan* and the *Silverdale Regional Center Vision*. This summary of existing and

future conditions is based on data and information provided by Kitsap County. Key documents reviewed include:

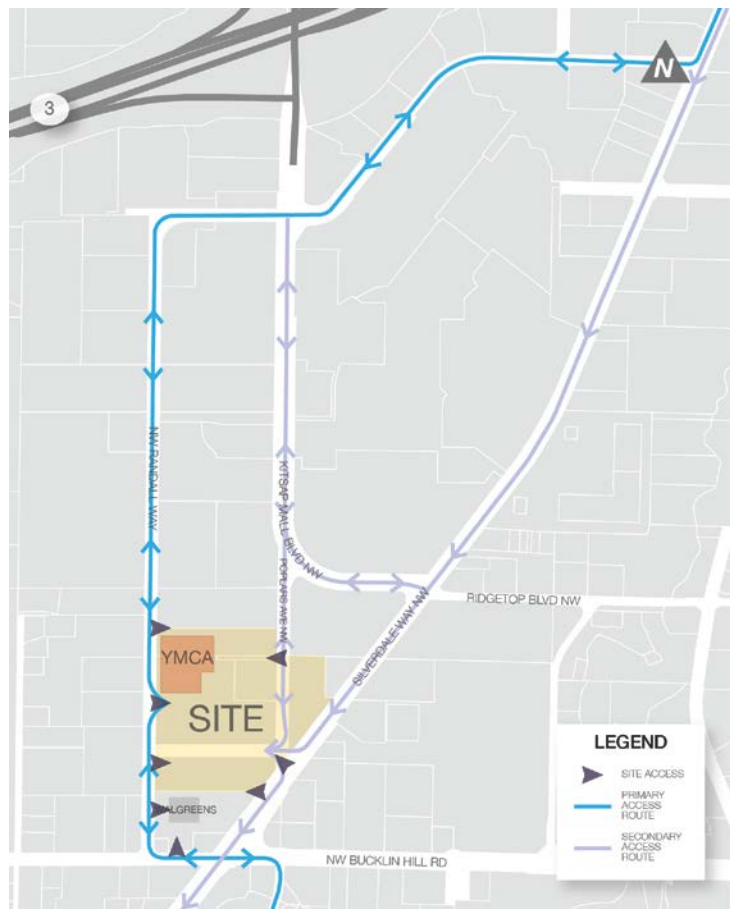
- *Kitsap County Comprehensive Plan 2016-2036*, June 2016
- *Kitsap Transit Long Range Transit Plan 2016 – 2036*, March 2016
- *Kitsap County Six Year Transportation Improvement Program (TIP) 2016 to 2021*, November 2015
- *Kitsap Transit Silverdale Transit Center Alternatives Analysis*, July 7, 2015
- *Central Kitsap Community Campus Design Guidelines*, November 2014
- *Transportation Impact Analysis Silverdale Trails Retail Center*, October 2013
- *Silverdale Way Northwest Pre-Design Study*, February 2010
- *Central Kitsap Community Campus, Silverdale Traffic Impact Analysis (TIA) Supplemental*, January 11, 2010
- *Central Kitsap Community Campus, Silverdale Traffic Impact Analysis (TIA) Supplemental*, October 30, 2009
- *Central Kitsap Community Campus, Silverdale Traffic Impact Analysis (TIA)*, June 2009
- *Kitsap County Comprehensive Plan Chapter 14 Silverdale Sub-Area Plan*, December 2006
- *A Conceptual Plan for Ridgetop Boulevard Widening Volume 1 of 2 – Text and Appendices Contract No. KC-176-02*, Kitsap County Department of Public Works, December 2005
- *Kitsap County Road Standards*, 2007
- *Kitsap County Bike Routes*, January 2005
- *Silverdale 2052 Final Vision Plan 2052*, Kitsap County Department of Community Development, February 2003
- *Kitsap County Bicycle Facilities Plan*, Kitsap County Department of Public Works, May 2001
- *Silverdale Design Standards*

Site Location and Access

The CK Campus is located west of Silverdale Way NW and east of NW Randall Way as shown on Figure 2. The site is currently occupied by a YMCA, Kitsap County Sheriff's Department, and the Poplars Building containing apartments and small retail uses. The YMCA opened in 2011 and would remain on-site with the redevelopment project.

Access to the site is provided via 4 side-street stop controlled driveways along NW Randall Way, 1 right-in/right-out driveway along Silverdale Way, and 1 side-street stop controlled driveway along Poplars Avenue NW. The Poplars Building also currently has a shared access along Silverdale Way NW with the existing Bank of America.

As shown on Figure 2, the primary travel route to the site is via NW Randall Way due to the existing restricted right-in/right-out site access and congestion along Silverdale Way NW. Within the Silverdale street



network, NW Randall Way operates primarily as a bypass for Silverdale Way NW during peak travel periods as it provides the only parallel connection between NW Bucklin Hill Road and Silverdale Way NW. NW Randall Way is an approximately one mile connection and all traffic using this route as a bypass is eventually directed back to Silverdale Way NW. The use of NW Randall Way as a bypass route puts pressure on the cross streets along Silverdale Way NW especially NW Bucklin Hill Road, which have less capacity than Silverdale Way NW.

The right-in/right-out driveway along Silverdale Way NW was designed as part of the YMCA project and was intended to be temporary. It is closely spaced with the signalized Silverdale Way NW/NW Bucklin Hill Road intersection and other driveways along Silverdale Way NW. With redevelopment of the site, there is opportunity to move this driveway to the north so it is midway between the NW Bucklin Road and Kitsap Mall Boulevard NW/Ridgetop Boulevard NW and aligned with commercial uses across the street. This new intersection could be signalized providing for a more direct connection between the site and Silverdale Way NW and minimizing circuitous and inefficient routing that may be occurring through congested intersections. Allowing a more direct travel route to and from the site along Silverdale Way NW will relieve some of the congestion that is occurring along NW Bucklin Road at the NW Randall Way and Silverdale Way NW intersections. This intersection could also provide an additional pedestrian and bicycle connection to other activities across from the Campus site.

Popular Avenue is partly a private access road and public local road. This roadway functions mainly as a secondary driveway for the site as well as provides parking. The current design between NW Randall Avenue Way and Silverdale Way NW is generally a parking lot and this facility provides limited connectivity within the County network. Consistent with the *Central Kitsap Community Campus Design Guidelines*, November 2014, campus design should consider converting this into a less than 20 mph roadway to integrate the site and provide a pedestrian oriented environment. Traffic calming measures or one-way circulation could be provided along Popular to reduce speeds and vehicle volumes.

Campus Redevelopment Consideration

- Provide access to the site along Silverdale Way NW at a new signalized intersection
- Consider access management along Silverdale Way NW to minimize conflicts related to minor access driveways
- Convert Popular Avenue to a pedestrian oriented street and potentially provide traffic calming measures or one-way circulation.

Street System

The existing street system and future planned improvements were reviewed for the site vicinity. The existing street characteristics in the site vicinity are described below in Table 1.

Table 1. Site Vicinity Street System

Roadway	Arterial Classification	Posted Speed Limit	Number of Travel Lanes	Parking?	Sidewalks?	Bicycle Facilities?
Silverdale Way NW	Collector/Arterial	30 mph	5 lanes ¹	No	Yes	No
Kitsap Mall Boulevard NW	Collector/Arterial	30 mph	5 lanes ¹	No	Yes	No
NW Randall Way	Local Road	30 mph	3 lanes ¹	No	Yes	No
NW Bucklin Hill Road	Collector/Arterial	30 mph	3/5 lanes ^{1,2}	No	Yes	No
Poplars Avenue NW	Local Road	5 mph ³	2 lanes	Yes	Yes ⁴	No

1. Inclusive of a center two-way left turn-lane.
 2. Three lanes are provided west of Silverdale Way NW and five lanes are provided east of Silverdale Way NW.
 3. 5 mph is the posted speed limit along the section of Poplars Avenue NW south of the YMCA.



Based on a review of the 2016-2021 TIP, there are no planned improvements immediately adjacent to the project site. Improvement projects within the site vicinity include:

- **NW Bucklin Hill Road Bridge.** This bridge was recently replaced and opened in July 2016. The improvements include signal timing updates at the intersection of Silverdale Way NW and NW Bucklin Hill Road.
- **Ridgetop Boulevard NW Widening.** The current TIP includes funding for design of a 5-lane Ridgetop Boulevard NW between Silverdale Way NW and SR 303.
- **Anderson Hill Shoulders.** Construct paved shoulders from 300 feet west of the roundabout to 480 feet east of the roundabout.
- **Bay Shore Drive.** Construct sidewalk curb and gutter with an overlay of this road.
- **Silverdale Way Road Improvements:** Intersection Improvements and widening the road 350 feet south of Byron Street to Anderson Hill Road.

The County is currently preparing their 2017-2022 TIP. Within the study area, the Silverdale Preservation project is planned for 2018. This project will overlay Silverdale Way NW between SR 303 and NW Bucklin Hill Road as well as upgrade ADA facilities and enhance bicycle and pedestrian facilities along the corridor. In addition, the 2010/2009 TIA for the CK Campus identified the need for dedicated eastbound to northbound left-turn lanes on NW Bucklin Hill Road at the NW Randall Way and NW Silverdale Way intersections. These left-turn lanes would help to mitigate queuing issues between these two intersections.

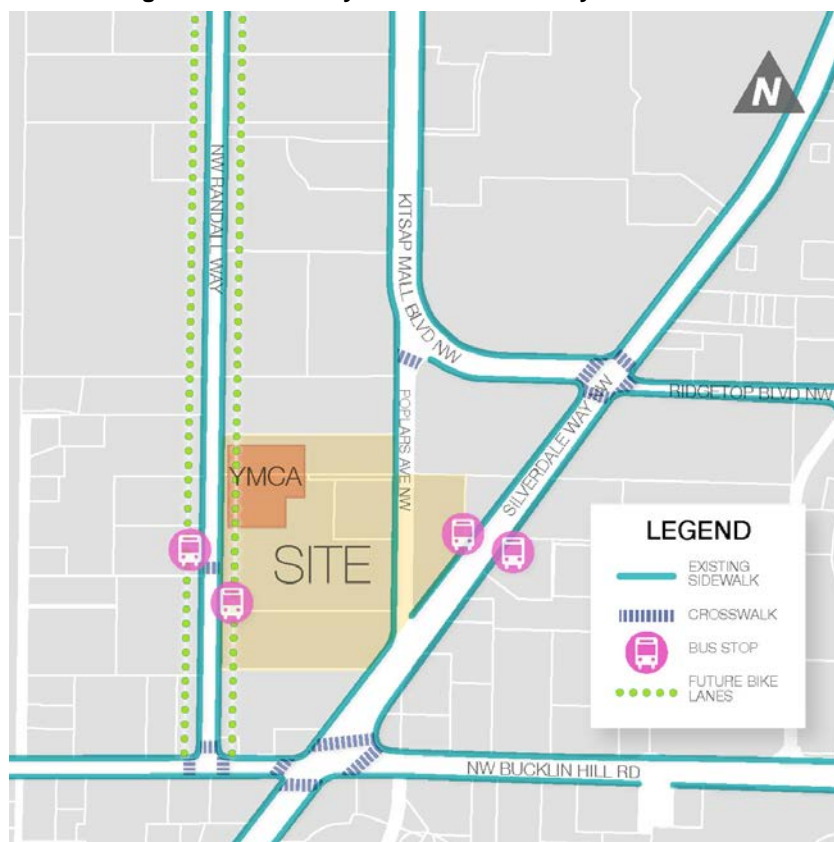
Campus Redevelopment Consideration

- Improvements may be needed along NW Bucklin Hill Road between NW Randall Way and Silverdale Way NW to accommodate increases in traffic associated with redevelopment of the site. These improvements may include a left-turn lane along NW Bucklin Road, signal upgrades, and/or widening and turn lanes at other locations. Widening of NW Bucklin Road may be difficult due to right-of-way constraints.
- Providing primary access to the site along Silverdale Way NW at a new signalized intersection could reduce the site impacts and improvements needed at the Silverdale Way NW/Kitsap Mall Boulevard NW/Ridgetop Boulevard NW, NW Randall Way/NW Bucklin Hill Road, and Silverdale Way NW/NW Bucklin Hill Road intersections. This new signalized access would provide a pedestrian crossing of Silverdale Way NW that is more centrally located for the site.

Non-Motorized

A review of pedestrian and bicycle facilities and connectivity in the vicinity of the site was conducted. Figure 3 illustrates the existing and future planned pedestrian and bicycle facilities in the vicinity of the site.

Figure 3 Site Vicinity Pedestrian and Bicycle Facilities



Pedestrian

The Kitsap County Road Standards requires a sidewalk width standard of 5-feet for collector arterials and local roads. Figure 3 illustrates the inventory of existing pedestrian facilities serving the site. Pedestrian facilities serving the site include:

- **NW Randall Way.** Sidewalks along this road feel narrow for pedestrians because there is minimal clear zone between the sidewalk and edge of travel way. There is a midblock pedestrian crossing along NW Randall Way at the existing middle driveway for the YMCA. This crossing facilities access between the site and the transit stop on the west side of the road.
- **Silverdale Way NW.** Pedestrian crossings along this road are provided at the signalized intersections with NW Bucklin Road approximately 570-feet south of the site driveway and Kitsap Mall Boulevard NW over 1,000-feet north of the site driveway.
- **Popular Avenue NW.** Sidewalks are provided on the west side of this roadway south of Kitsap Boulevard NW. The east-west private portion of this street generally operates as a parking lot. As discussed previously, consideration should be given to converting Popular Avenue to a pedestrian oriented street and potentially providing traffic calming measures or one-way circulation.
- **Project Site.** There is a “Village Common” or community space as well as pathways that connect the CK Campus to Poplars Avenue NW. Within the existing parking lot, there are sidewalks and pedestrian paths that connect YMCA visitors to the parking area as well as the adjacent street system. The layout of the parking lot south and east of the YMCA provides for rows of parking parallel to the building with one pedestrian pathway in the

middle of the parking area. With the large parking field and the distance between many of the parking spaces and the pedestrian pathway, most of the pedestrians walk within the parking lot rather than walking further to the pedestrian path to access the YMCA. For future parking designs, where feasible, consideration should be given to re-orienting parking drive aisles to better align with primary pedestrian routes to the building access points to reduce potential conflicts between vehicles and pedestrians. .

Bicycle

As discussed previously, there are no bicycle facilities in the vicinity of the site. The Kitsap County Bicycle Facilities Plan recommends provision of bike lanes along Silverdale Way NW between Ridgetop Boulevard NW to SR 308 and a separated path or bicycle lanes between NW Bucklin Hill Road and Seabeck Highway. It also recommends bike lanes along Clear Creek Road/Kitsap Mall Boulevard/ NW Randall Way between SR 308 and NW Bucklin Hill Road, which would serve the project site from the west side.

Campus Redevelopment Consideration

- Ensure sidewalks along the frontage meet or exceed Kitsap County Road Standards and consider providing wider sidewalks and/or buffers between pedestrian facilities and the travel way to encourage walking to and from the site.
- Consider ADA accessibility with frontage improvements and on-site design.
- Provide bicycle facilities on-site that connect to planned on-street facilities along NW Randall Way.
- Provide pedestrian crossings at the new signalized access with Silverdale Way NW.
- Consider a parking design that orients drive aisles to better align with primary pedestrian routes to the building access points to reduce potential conflicts between vehicles and pedestrians.
- Pedestrian pathways and on-site connections should be designed based on the Campus Design guidelines including a minimum width of 8-feet for primary pathways and 5-feet for secondary pathways.

Transit Service

Transit service in the area is provided by Kitsap Transit. Within Silverdale, Kitsap Transit currently has approximately 25 passengers per hour (PPH) on weekdays and 19 PPH on Saturday. A summary of the transit operations and service area is provided in Table 2.

Transit services is provided along Silverdale Way NW with stops located on both sides of the street north of the existing right-in/right-out driveway in front of the Burger King. The stop on the west side of Silverdale Way NW has a shelter. In addition, service is provided along NW Randall Way with stops provided on both sides of the street near the southern driveway to the YMCA parking lot. The stop on the west side of NW Randall Way has a shelter.

Table 2. Transit Route Operations Summary

Route	Days	Hours ¹	Service Area
Silverdale Way NW Routes			
12	Weekdays Saturday	6:00 a.m. – 9:00 p.m. 10:00 a.m. – 6:00 p.m.	West Bremerton Transfer Station (TS), Erlands Point, Chico Way, Silverdale Way, Silverdale Plaza, Silverdale TS
NW Randall Way Routes			
33	Weekdays	4:30 a.m. – 9:00 p.m.	Randall Way, Ridgetop, Viking Way, Keyport Junction, Poulsbo Junction and Gateway Fellowship Park & Ride, Bainbridge Island Ferry Terminal
35	Weekdays	8:30 a.m. – 6:00 p.m.	Silverdale TS, YMCA, Old Town, Bucklin Hill, Social Security, Myhre, Harrison Medical Center, Silverdale Way, Kitsap Mall
36	Weekdays Saturday	7:30 a.m. – 8:30 p.m. 10:00 a.m. – 5:30 p.m.	Silverdale Transit Center (STC), Silverdale Way, Ridgetop, Doctor's Clinic, Albertsons, Kitsap Mall
37	Weekdays	7:00 a.m. – 6:30 p.m.	STC, Kitsap Mall, Ridgetop, Myhre, Nels Nelson, Kitsap Pavilion, Tracyton Boulevard, Bucklin Hill, Randall, YMCA

1. Approximate hours of operation. Headways are generally 1 hour.

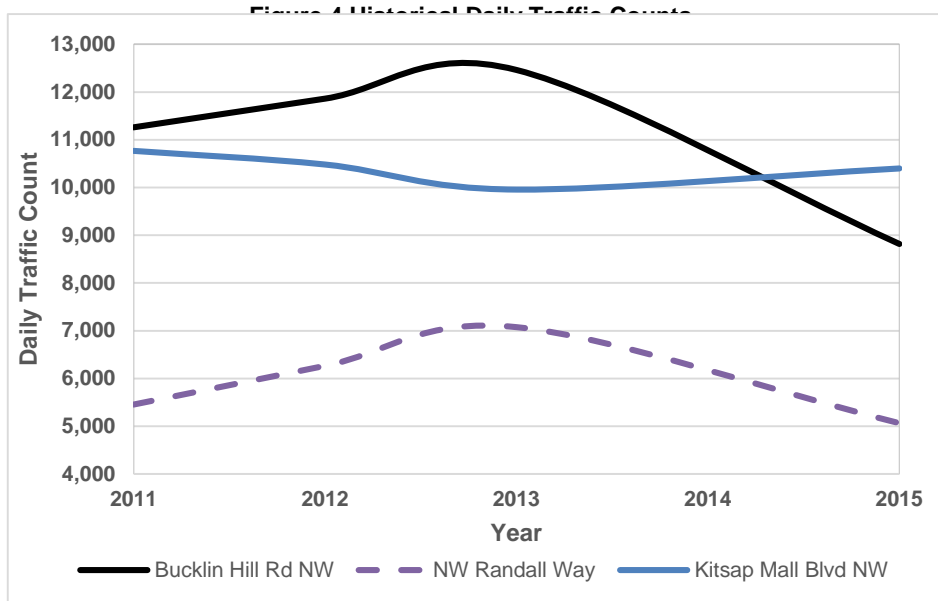
Campus Redevelopment Consideration

- The two stops along Silverdale Way NW may need to be relocated if a new signalized driveway is provided aligned with the existing Burger King access.
- Focus transit access and connectivity to and from the site along NW Randall Way where there is a majority of transit service

Traffic Volumes

Kitsap County provided daily and weekday PM peak hour traffic counts for a variety of years between 2009 and 2015. Daily traffic counts were provided for NW Randall Way, NW Bucklin Road, Ridgetop Boulevard NW, Kitsap Mall Boulevard NW, and Poplar Avenue NW surrounding the site. Weekday PM peak hour intersection turning movement counts were provided for the Silverdale Way NW/Kitsap Mall Boulevard NW/Ridgetop Boulevard NW, NW Randall Way/NW Bucklin Hill Road, and Silverdale Way NW/NW Bucklin Hill Road intersections.

Figure 4 illustrates, based on yearly data along NW Bucklin Hill Road and NW Randall Way, that daily traffic volumes have been declining in the study area. A review of the historical traffic counts, including these two roadways as well as data provide for other roadways in the vicinity, indicates an average growth rate of approximately 0.5 percent per year.



Based on coordination with County Public Works staff, a growth rate of 2 percent per year is typically applied for planning purposes, which provides a conservative estimate of traffic projections. Consistent with the County’s planning level estimates, a growth rate of 2 percent per year was applied to the historical counts to determine existing 2016 daily and weekday PM peak hour traffic volumes surrounding the site. Figure 5 illustrates existing daily and weekday PM peak hour traffic volumes surrounding the project site. As shown on the figure, the highest traffic volumes are along the arterial streets of Silverdale Way NW and NW Bucklin Hill Road.

Figure 5 Existing (2016) Weekday PM Peak Hour Link Volumes



The Kitsap County Comprehensive Plan shows that Silverdale's population would increase by 50 percent and employment would double over the next 20-years in Silverdale. The project site and vicinity have an urban high-density commercial/mixed use Comprehensive Plan designation and densities are anticipated to increase to the west of the project site. As discussed previously, County staff typically applies a 2 percent per year growth rate to determine future traffic projections; however, this appears to be higher than recent trends. Kitsap County has recently updated their travel demand model as part of the Comprehensive Plan. Given the difference in the County's planning estimated of 2 percent per year and actual growth observed of 0.5 percent per year, it is recommended that the County's travel demand model growth be reviewed in developing future forecasts for the study intersections.

Campus Redevelopment Consideration

- Leverage the Kitsap County travel demand model to determine growth rates and/or forecasts in evaluation of future traffic operations

Traffic Operations

Weekday PM peak hour operations were reviewed in the site vicinity for the key roadway facilities and intersections. The intersections included: (1) Silverdale Way NW/Kitsap Mall Boulevard NW/Ridgetop Boulevard NW, (2) NW Randall Way/NW Bucklin Hill Road, and (3) Silverdale Way NW/NW Bucklin Hill Road.

Roadways

Kitsap County currently has LOS standards adopted only at the roadway segment level. LOS is determined based on volume-to-capacity ratio. Within the study area, Silverdale Way NW, Kitsap Mall Boulevard NW, Ridgetop Boulevard NW, and NW Bucklin Hill Road all have a LOS D standard while NW Randall Way has a LOS C standard. A review of the Silverdale Sub-area Analysis shows that in 2005-2006, the roadway LOS in the vicinity of the site were:

- Silverdale Way NW – LOS B
- Kitsap Mall Boulevard NW – LOS A
- Ridgetop Boulevard NW – LOS D
- NW Randall Way – LOS A
- NW Bucklin Hill Road – LOS D west of Silverdale Way NW and east of LOS C east of Silverdale Way NW

Intersections

The County recognizes that roadway operations may be controlled more by intersection operations rather than overall roadway segment operations in more urban areas such as in the site vicinity. A minimum LOS E intersection standard is assumed in the site vicinity consistent with the previous traffic studies conducted for the CK Campus. The operational characteristics of an intersection are determined by calculating the intersection level of service (LOS). For signalized locations, LOS is measured in average delay per vehicle and is reported for the intersections as a whole. Traffic operations for an intersection can be described alphabetically with a range of levels of service (LOS A through F), with LOS A indicating free-flowing traffic and LOS F indicating extreme congestion and long vehicle delays.

Existing (2016) weekday PM peak hour traffic operations were evaluated at the study intersections based on the procedures identified in the *Highway Capacity Manual (HCM)* and using the *Synchro 9* software program. Pedestrian and bicycle volumes were taken into account, where available.



Signal timing plans were optimized for the analysis. This evaluation provides a baseline condition to understand intersection operations and current deficiencies without redevelopment of the CK Campus. Table 3 provides a summary of intersection LOS for the three study locations. Detailed LOS worksheets are provided in Attachment A.

Table 3. Existing Weekday PM Peak Hour Intersection LOS Summary

Intersection	2016	
	LOS ¹	Delay ²
Silverdale Way NW/Kitsap Mall Boulevard NW/Ridgetop Boulevard NW	F	91
NW Randall Way/NW Bucklin Hill Road ³	C	31
Silverdale Way NW/NW Bucklin Hill Road ⁴	F	131

1. Level of service, based on 2010 *Highway Capacity Manual* (HCM) methodology.
2. Average delay in seconds per vehicle.
3. This intersection is congested and delays may be longer than reported since queues from the Silverdale Way NW/NW Bucklin Hill Road impact this intersection.
4. Analysis completed based on HCM 2000 method due to the lane configuration not being supported by the 2010 analysis method.

As shown in the table, the Silverdale Way NW intersections with Kitsap Mall Boulevard/Ridgetop Boulevard NW and NW Bucklin Hill Road operate at LOS F during the weekday PM peak hour. In addition, the NW Randall Way and Silverdale Way NW intersections with NW Bucklin Hill Road are closely spaced and queues from the Silverdale Way NW intersection extend along NW Bucklin Hill Road beyond the NW Randall Way intersection. The delays at the NW Randall Way/NW Bucklin Hill Road intersection may be longer than report since queues from the adjacent intersection impact this location.

Potential improvements that have been identified to improve operations at these locations include:

- **Ridgetop Boulevard NW Widening.** This would add capacity to the Silverdale Way NW/Kitsap Mall Boulevard NW/Ridgetop Boulevard NW intersection; however, additional improvements beyond this widening would likely be needed to achieve LOS E operations.
- **NW Bucklin Hill Road Left Turn Lanes.** The CK Campus TIA showed an operational issue at the Silverdale Way NW/NW Bucklin Hill Road intersection and identified the need for a dedicated eastbound to northbound left-turn lanes on NW Bucklin Hill Road at the NW Randall Way and NW Silverdale Way. This could be achieved through restriping of the intersections; however, operational issues would continue to exist so it is likely that additional right-of-way would be needed to accommodate the new turn lanes.

Campus Redevelopment Consideration

Key considerations relative to traffic operations include:

- Mitigation measures would likely need to be considered at the Silverdale Way NW/Kitsap Mall Boulevard NW/Ridgetop Boulevard NW and the Silverdale Way NW/NW Bucklin Hill Road intersections
- Provision of a new signalized intersection along Silverdale Way NW would reduce CK Campus traffic impacts at the NW Randall Way/NW Bucklin Road, Silverdale Way NW/NW Bucklin Road, and Silverdale Way NW/Kitsap Boulevard NW intersections by providing more direct travel routes to the site.
- Access management such as c-curb and restricted driveways should be considered along Silverdale Way NW between Kitsap Mall Boulevard and NW Bucklin Hill Road to reduce driveway conflicts and congestion along the corridor that occurs with vehicles entering and exiting the traffic stream.



Safety

Kitsap County provided 5-years (2011-2015) of collision history for the streets surrounding the site. The collisions were reviewed to identify any patterns that may influence the redevelopment plan. Based on the review, a majority of the collisions occurred along Silverdale Way NW and were of the rear-end type, which is common in congested stop-and-go traffic conditions. Collisions along NW Randall Way were mainly to vehicle entering the traffic stream from unsignalized intersections or driveways along the corridor. Poplar Avenue NW also had a few rear-end related to collisions. There were no reported pedestrian or bicyclist related collisions within the timeframe reviewed.

Parking

Parking was reviewed from both the parking supply perspective as well as access and circulation.

Supply

Kitsap County Code Title 17 Chapter 17.435 Off-Street Parking and Loading outlines guidance on the number of spaces required by land use for residential, institutional, and commercial uses. For uses not specified in the Code, parking requirements are based on the Director's requirements. In addition, parking requirements may be increased or decreased based on a parking study. The CK Campus design guidelines also provide some relief to the parking requirements on the site and encourage shared parking agreements. The guidelines allow for up to 50 percent of the proposed use's required minimum number of spaces to be shared parking. In order to take full advantage of shared parking, uses on-site will need to have complimentary parking demand peaks.

The parking on-site is surface parking with approximately 460 stalls for the YMCA area. The County Code does not include specific parking requirements for a fitness type use like the existing YMCA. Based on the current agreement between the County and YMCA, the site must have a minimum of 345 parking stalls dedicated to the YMCA and a maximum of 400 parking stalls. The existing YMCA is currently very busy and is exploring opportunities to share or develop off-site parking to accommodate overflow parking for up to additional 125 stalls. As the YMCA develops other locations to serve Kitsap County, the visitors to this site may decrease.

Peak parking demand for the YMCA site currently occurs on Tuesdays and Thursday between approximately 4 and 6 p.m. With redevelopment of the site and provision of additional parking, there may be opportunities to share parking with the YMCA to accommodate overflows especially if the proposed uses have different peak parking characteristics.

Access and Circulation

Parking is accessed both via Silverdale Way NW and NW Randall Way. In addition, there is some on-street parking provided along Poplar Avenue NW. On the south side of the site, Poplar Avenue NW is integrated within the parking lot with diagonal parking on both sides. There are sidewalks and pedestrian paths that connect YMCA visitors to the parking areas as well as the adjacent street system. In the future, parking should be designed considering the location of the vehicle access points to minimize circulation through the parking area as well as guide vehicles to desire ingress/egress points. With a signalized site access along Silverdale Way NW, primary access to and from the site would shift to Silverdale Way NW and parking should be design to encourage use of this main driveway.

Benefits realized from a well-designed parking facility include good access and circulation, efficient use of space (maximize stall count), minimize conflict points, and improved safety for both pedestrians and vehicles. Some of the primary considerations for designing parking areas include the dimensions of the available area, number and location of access points, turnover, stall designations (ADA, credentialed, load/unload, etc.), physical constraints (utilities, trees, buildings,

etc), surrounding transportation network, pedestrian connectivity, lighting, landscaping, and local agency requirements.

Consideration should be given to eliminating Popular Avenue NW as a through street especially on the south side of the site. Eliminating Popular Avenue NW would minimize pedestrian conflicts with through traffic and provide a more integrated site in terms of access and circulation.

Campus Redevelopment Consideration

Parking should be designed balancing safety with the overall supply needs. Key considerations relative to parking include:

- Shared parking amongst uses on site to reduce the overall parking supply as allowed for in the CK Campus design guidelines.
- Consider uses with complimentary parking peaks to maximize the ability to share parking.
- Potentially revisit the amount of dedicated parking for the YMCA especially relative to the maximum supply of 400 spaces.
- Provide a new signalized access intersection along Silverdale Way NW and design parking to encourage use of this as the main driveway for the site.
- Design parking for efficient use of space (maximize stall count), minimize conflict points, and improved safety for both pedestrians and vehicles.
- Provide for pedestrian scale lighting within the CK Campus.
- Ensure parking is designed for ADA accessibility.