

2022 ANNUAL REVIEW AND TRANSIT DEVELOPMENT PLAN 2023 – 2028

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INTRODUCTION

A focus on equity and the climate crisis

Equity and the climate crisis continue to be the focus of Island Transit's service and programs. It is about increasing access to opportunities and decarbonization. More specifically, it is about increasing and improving our service as planned in Island Transit *Maximized* and transitioning our fleet to zero emission vehicles.

In 2022 Island Transit began implementing the service improvements contemplated in Island Transit *Maximized*. This includes Sunday service, new routes and on-demand service zones, and improvements to existing routes so that riders—including essential workers and transit dependent customers—are better connected to where they need to go. On the climate front it includes the installation of solar panels at our two operating bases as well as the purchase of battery electric rideshare (formerly vanpool) vehicles. It includes the adoption of a zero emission fleet transition plan by the Island Transit Board of Directors at the March 3, 2023, Board meeting. It also includes the planning and procurement underway for the purchase of battery electric vehicles and their charging infrastructure.

This focus on equity and climate change has been underscored by legislative and policy changes on the federal and state level. Those changes are historic and transformative.

On the federal level, the Bipartisan Infrastructure Law, also known as the Infrastructure Investment and Jobs Act (IIJA), provides unprecedented levels of federal funding for our nation's infrastructure, including local transit agencies such as Island Transit. To be eligible for many of those dollars, a transit agency must provide a plan outlining the steps it is taking to transition to a zero emission fleet. Concurrent policy guidance includes showing how the funding benefits historically disadvantaged populations.

On the state level, the Move Ahead Washington investment package provides historic levels of state funding for public transit agencies, particularly those who are fare free for youth. Another condition of the funding is that a certain percentage is used to benefit vulnerable populations and overburdened communities.

The policy framework of Island Transit's 2023-2028 Transit Development Plan

Island Transit's 2023-2028 Transit Development Plan (TDP) and 2022 Annual Review identifies how the agency has met and will meet local and state long-range priorities for public transportation. This includes capital improvements, operating changes, and other programs. The plan addresses how to fund such programs as well.



The State's transportation system policy goals as contained in RCW 47.04.280 may seem outdated and not fully represent the new, broad legislative focus on equity and climate change. Nonetheless, the goals codified in RCW 47.04.280 remain the official transportation system goals for Washington State. Therefore, despite the shortcomings of those goals, Island Transit's TDP is organized around them and supports them. The TDP also supports regional and local comprehensive planning and economic objectives within Island County. The State transportation system policy goals currently are:

- Economic Vitality promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy. Island Transit contributes to economic vitality by providing fare free public transportation to places of employment, school, medical appointments, and other activities. Island Transit strives to support the local tourism industry and connects Island County to its four gateways and beyond.
- Preservation maintain, preserve, and extend the life and utility of prior investments in transportation systems and services. Island Transit maintains the agency's rolling stock, equipment, and facilities in a state of good repair.
- Safety provide for and improve the safety and security of transportation customers and the transportation system. Island Transit maintains a safe and efficient operation, and strives to provide continual safety and risk training, including health and safety measures to protect the public and employees during the COVID-19 pandemic.
- Mobility improve the predictable movement of goods and people throughout Washington State. Island Transit operates under the requirements of its Performance Standards Policy, and continually analyzes service to keep the system efficient and effective.
- Environment enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment. Island Transit is reducing its energy dependence through the installation of solar panels at its operating bases and improving its infrastructure in order to replace its carbon-fueled fleet with green energy, zero emission vehicles. The agency is also working to maximize its service so that more individuals will use transit, thereby reducing their impact on the environment.
- Stewardship continuously improve the quality, effectiveness, and efficiency of the transportation system. Island Transit performs quarterly service performance reviews to ensure the route structure is efficient and effective while meeting the riders' needs.



Island Transit has an additional goal, **Equity**. Although equity is not contained in RCW 47.04.280, it is at the heart of nearly everything we do. The goal of equity reflects our agency's ongoing commitment to improving access to opportunities and the benefits that focus provides.

• Equity – ensure that everyone has access to opportunities to thrive. Island Transit provides vulnerable, overburdened, and disadvantaged populations access to jobs, school, medical care, shopping, recreation, and social services. Island Transit does not charge a fare to ride its buses or use its paratransit service. Island Transit believes that access to opportunity should be at the center of our service and public investment decisions.

The Transportation Development Plan (TDP) provides a framework for guiding service delivery over the next five years. Island Transit reviews the plan annually and amends it to reflect funding realities and changing service needs and objectives. This document is a tool for communicating Island Transit's short- and mid-range plans to the public, and used within the organization to identify grant opportunities, for procurement planning, for budgetary purposes, and for updating the Regional Transportation Improvement Program (RTIP) and the State Transportation Improvement Program (STIP).

The goals listed above are consistent with local and regional goals and priorities as set forth in both the Island County Coordinated Public Transit – Human Services Transportation Plan, adopted in 2022, as well as the Island County long-range Regional Transportation Plan (RTP) *Access 2040*, adopted in September 2019 and currently being updated for *Access 2045*. The Island County RTP strives to address chronic mobility issues and recommends a number of strategies that Island Transit looks towards when drafting the agency's annual TDP update.

Island Transit strives to recognize the history, challenges, and needs of those who are Black, Indigenous, or people of color. We also strive to meet the needs of low-income citizens. We do that in part by not charging a fare for our bus service. We also focus on the needs of our essential workers, senior citizens, people with disabilities, and veterans who call Island County home. Our route network project examined ways to adapt our service to meet their needs and the new travel patterns that evolved during the pandemic.

The result of that work--Island Transit *Maximized*-- produced a number of service improvement proposals that the agency is now implementing. Subject to available labor, completion is planned for Winter 2024. These improvements include improved frequency and connections on key routes, Sunday bus service, late evening service, and new on-demand service in four locations in the county. Our new north end route is designed to provide additional service to Island County's only historically disadvantaged census tract.



Significantly, Island Transit is transitioning to a zero emission fleet. Earlier this year a transportation engineering firm, Hatch LTK, completed a zero emission feasibility study. The Board subsequently adopted a plan for transitioning our fleet to zero emission vehicles by 2040. Additionally, the installation of solar panels at both of our operating bases moves us to a more sustainable, greener operating model.

While this Transit Development Plan focuses on Island Transit services, facilities, and goals, it is important to recognize the significance of multimodal transportation partners throughout the region. These partnerships and shared facilities make it possible for the public to travel across jurisdictional boundaries.

For instance, Island Transit serves two islands which have four gateway entrances. Our buses connect with the Washington State Ferries at the Clinton and Coupeville ferry terminals, and with our neighboring transit agencies in Anacortes, Mount Vernon, Stanwood, and Everett. Island Transit is working with its transit partners in the North Sound Transportation Alliance to study ways to efficiently improve connections up and down the Interstate 5 corridor. That work just received a state grant.

Another example is our planned South Whidbey Transit Center. Island Transit will build a transit center on the south end of Whidbey Island to provide a safe, off-street area to transfer between buses and on-demand vehicles, increasing the public's access to opportunities via transit. The new facility will also support the agency's transition to zero emissions, provide park and ride spaces in excess of 100 and create a place to easily access the new Ken's Korner to Clinton trail.

There currently is no place on the south end of Whidbey Island for customers to safely transfer (off-street) between buses, on-demand vehicles, and other modes. This facility will support the implementation of Island Transit's new on-demand service, a new service that will make it easier for people to access transit and the opportunities they seek. This new service is needed for the disproportionately high numbers of veterans and seniors in the south end, as well as those who come from the two disadvantaged census tracts in the north (in order to connect to Snohomish County and points south and west).

This facility will enable easier travel across the county and from one side of the Salish Sea to the other. It is regionally significant because of the improvements it will bring to cross-jurisdictional trips.

Island Transit will continue working with WSDOT and our local partners to improve access and safety at bus stops at various locations on state highways and county and city streets. Island Transit participated in WSDOT's study of State Route 532, the gateway to Camano Island.



Finally, it is important to note that the implementation of our new service, as well as the agency's other goals, strategies, and actions, are dependent on increasing Island Transit's workforce and the on-going financial stability of the agency.

SECTION 1 – ORGANIZATION AND FUNDING

Island Transit is the business name for the Island County Public Transportation Benefit Area (PTBA), and it is a municipal corporation. The PTBA is authorized by RCW 36.57A and is a separate governmental entity from Island County.

Island Transit History at a Glance

The Island County Public Transportation Benefit Area (PTBA), D/b/a, Island Transit, has provided public transportation to the Island County community since December 1, 1987. Service started with a small system providing fixed route service moving 161 riders on the first day of service. It has since evolved into a countywide system providing bus service to nearly 962 riders daily commuting to work, traveling to businesses, and accessing services or connecting to ferries and neighboring transit systems. Today Island Transit provides a full suite of transportation services including fixed, paratransit and vanpool services providing over 380,574 trips annually. Other notable historic achievements include:

1980 - 1989

In 1983, Island Transit was formally established as a public transportation benefit area, a municipal corporation, per RCW 36.57A. Voters approved a 3/10ths of 1 percent local sales tax to fund Island Transit services that November. Following a court decision resulting in implementation of the tax in 1985, Island Transit began fixed route service in December 1987 carrying 161 riders that first day. The following year the vanpool program began, and bus service expanded to South Whidbey to include regularly scheduled hourly service.

1990 - 1999

In 1990, improvements continued with the first dedicated transit-only lane at the Clinton ferry dock and expanded services supporting the Clinton Ferry. In 1991, Island Transit introduced Special Needs Service, aka Paratransit service. By March 1992, Island Transit became the first transit system in Washington to be in full compliance with the Americans with Disabilities Act. May 1992 Island Transit received the Elizabeth H. Dole Silver Award, a national safety award and the highest honor awarded by APTA. Only five transit systems in North America had received the award at the time. 1992 also saw growth of the PTBA with voters approving annexation of the north end of Whidbey Island.

During the mid-1990s, Island Transit continued to grow and received a Rural Mobility Grant for a demonstration project providing service on Camano Island from January through June 1994.



The pilot project was successful, thus in May 1995 annexation of Camano Island into the PTBA's service area became a reality. By 1998, Camano Island's service doubled and expanded into Stanwood with hourly service.

Whidbey Island facilities continued to expand. Oak Harbor's Harbor Station transit hub opened for service on December 20, 1996. Island Transit and Skagit Transit established a partnership providing service to Mount Vernon from Whidbey Island. However, in 1999 voters also approved ballot measure I-695, eliminating Motor Vehicle Excise Tax funding support for transit agencies, as of January 2000. As a result, Island Transit eliminated Saturday service and service to Mount Vernon.

2000 - 2009

In May 2000, Island County voters approved an additional 3/10s of 1 percent local sales tax revenue for Island Transit; this brought the total revenue to 6/10s of 1 percent to fund public transportation services in Island County. By August of that year, Island Transit reinstated modified Saturday service. The agency received another Rural Mobility Grant from the state that again supported service connections between Island and Skagit counties as of July 1, 2001.

Island Transit service continued expanding and the agency began planning for a new, modern facility to support the growing operational and maintenance demands of the bus fleet. In 2004, Island Transit received the first of several federal grants to assist with growing facilities demands on both Whidbey and Camano islands. In October 2004, WSDOT held a dedication ceremony for Camano Island's Terry's Corner Park & Ride. This coincided with expanded commuter service connections in Stanwood with Community Transit.

In 2005, Island Transit and the State of Washington collaborated on planning for new Park & Rides located on Camano Island and the Whidbey communities of Langley, Coupeville, and Freeland. On September 6, 2005, Island, Skagit, and Whatcom transits' launched the "County Connector" which provided service between Island, Skagit, and Whatcom counties. Island Transit's service is Routes 411W (Whidbey) and 411C (Camano).

Island Transit continued to expand with new service routes in Oak Harbor and South Whidbey, as well as acquiring property adjacent to the existing base in Coupeville, a product of a partnership between Island Transit, Naval Air Station Whidbey Island, Plum Creek Timber, and Whidbey Camano Land Trust. The new Camano Satellite Facility was finished, and the agency held an open house and dedication ceremony on November 27, 2006. Service changes included the "Everett Connector" partnership between Island, Skagit, Everett, and Community Transits, establishing Island Transit's Route 412 to Everett. Island Transit's service increased by 43% from 2005 to 2007. In 2009, Island County voters approved an increase of 3/10s of 1 percent local sales tax, which brought the total sales tax revenue to 9/10s of 1 percent, the current maximum



allowed by State law. This allowed Island Transit to maintain existing levels of service.

2010 - 2019

In 2011, an important milestone was reached for Island Transit's plan of new main base facilities. The state awarded funds to realign the Parker Road/SR 20 intersection and construct a secondary access to the Island Transit facilities in Coupeville. In October, Island Transit received a federal grant through the FY11 State of Good Repair program for the new Whidbey Main Operations Base Facilities. The new project started with the groundbreaking in Aril 2012. Island Transit moved into the new facilities in June 2013, and in May 2014, the agency held the official grand opening and ribbon cutting.

Island Transit also experienced challenges during this period. Shifting state funding priorities meant the loss of Everett Connector (412) funding, which resulted in suspension of the service. A depressed economy and elevated fuel prices affected Island Transit's sales tax revenue and placed the agency in a fiscal crisis. Needing to reduce costs in response to the emergency, Island Transit reduced service to Monday through Friday, adjusted existing routes, and laid off staff and operators.

In 2015, the agency saw an improvement in their financial situation, which was a direct result of the cost cutting measures taken earlier, as well as reduced fuel prices and an improving economy. Island Transit provided a small service expansion on South Whidbey in April 2015 and received notice that the State would award operating funds for the Everett Connector (412) until June 2017, contingent upon an 8% fare box recovery. The Everett Connector resumed service in June 2016 and included the first fare for riding an Island Transit bus.

Finances further improved from 2016-2018 with robust sales tax revenue and an improving economy. In 2017, staff implemented a service improvement plan, improving connections across the fixed route system and with Washington State Ferries. The agency's Board of Directors directed staff to research the implementation of a fare structure. In 2018, upon receiving the results of the fare study and conducting extensive public outreach, the Board of Directors voted not to implement a fare structure. That February, Saturday service began again on Camano and Whidbey Islands.

In 2018, Island Transit refreshed their mission statement to one that was more concise and impactful. The mission statement update served two purposes: 1) to help agency employees understand the value of their work better; and 2) to help the public understand the purpose and value of the agency. Staff began the process for engaging in long-range planning. In May 2019, streamlining the fixed route structure resulted in extended Saturday service on Whidbey, as well as other service adjustments. Commuter service to Naval Air Station Whidbey Island (NASWI) began, running from the Ault Field Base and naval housing, by way of Harbor Station in Oak



Harbor. This was a longtime goal of NASWI, Island Transit, and the City of Oak Harbor.

In November 2019, in an effort to reduce car taxes and fees, the voters of Washington State approved Initiative 976. (A majority of Island County residents voted against the initiative.) I-976 jeopardized 19% of the agency's operating revenue and puts capital dollars at risk. Following the passage of I-976, WSDOT notified Island Transit that the vanpool funding (\$514,000) previously awarded would not occur. Funding for the state's share of the agency's operating revenue was not on the cut list, but assuming that future cuts were coming, the Island Transit Board of Directors approved a 2020 budget that anticipated receiving 80% of the state operating assistance and no state capital dollars for vanpool purchases.

The Washington State Transit Association (WSTA) and other entities filed a suit questioning the constitutionality of I-976. Late 2019/early 2020 saw the fight against I-976 go to the State Appeals Court and the State Supreme Court, which found Initiative 976 unconstitutional.

2020 - 2021

Early 2020 saw the first wave of the COVID-19 global pandemic to hit Washington State. Governor Jay Inslee declared a state of emergency, the Island County Commissioners issued an emergency declaration as well, and the Island Transit Board of Directors passed a resolution allowing the agency to respond accordingly. Ridership was down 90% at one point. Several employees contracted COVID-19, and Island Transit was able to support them through their illness. Some employees worked remotely. The agency immediately moved to virtual meetings instead of holding meetings in person.

On March 23, 2020, the agency made emergency service reductions. On April 6, 2020, the agency implemented a revised emergency service plan, with four routes on each island, service Monday through Friday, and cancellation of Saturday service. Amidst the pandemic, Island Transit's role in serving essential workers and essential trips became noticeably clear. The agency put in place additional mitigation measures that allowed Island Transit to continue to provide service for essential workers despite the pandemic and to focus on the health and safety of riders and staff. These measures included improvements to our buses with new health and safety best practices. We began daily hydrostatic bus cleaning, universal mask availability and placing hand sanitizers on buses, new social distancing requirements, installation of safety shields for coach operators and active air sanitation systems on our fleet. The agency hired onsite security personnel for Harbor Station in Oak Harbor, which continues.

The agency collaborated with Island County and Island County Public Health by placing large signs on the exterior of buses that asked residents to "Mask Up". As the pandemic worsened, state government mandated social distancing on buses; this resulted in reducing the carrying capacity and created the need for backup "shadow" buses. Face coverings were also mandated.



Later that year Island Transit received \$3.2 million in federal CARES Act funding. This funding was for all COVID-19-related expenses incurred since January 20, 2020, as well as to replace local sales tax revenue lost because of the pandemic's economic impacts. That funding was followed by a second (CRRSAA) and third (ARPA) round of additional federal funding for Island Transit.

On July 6, 2020, Island County transitioned from Phase 2 to Phase 3 of the Washington State phased reopening plan and the agency implemented a modified service plan. The service increase included trips on Saturday, more service to the ferry dock in Clinton, service to Naval Air Station Whidbey Island, and reinstatement of Route 6 on Whidbey Island, as well as trips between Camano Island and Everett. Several agency staff contracted COVID-19. Dispatch moved to a temporary location while it received a deep cleaning. Despite these challenges, Island Transit did not miss a single day of service.

2022-current

The COVID pandemic remained with us. In the spring and summer of 2022 there was an uptick of cases despite the availability of the vaccine and booster shots. In the month of April 2022, not long after the federal mask mandate was suspended, Island Transit had the most cases of COVID among its employees since the pandemic began. Thankfully, in most cases the illness was not severe. Despite the continuation of the pandemic, Island Transit was able to increase our focus on equity and climate with several new projects.

The first was the implementation of significant new service improvements, called Island Transit *Maximized*. On April 1, 2022, the Island Transit Board approved the service improvement recommendations contained in that plan. That plan was the result of work by Fehr & Peers, who studied the Island Transit route network and looked for ways our service could better meet the needs of Island County. The goal was to propose changes to increase access to transit and opportunities.

The service improvements included multiple sets of changes in service, with the last installment scheduled for Winter 2024. The improvements include five zones of new on-demand service, an extended route, more trips on key routes (including later in the evening), a seasonal route connecting the Central Whidbey parks, a new route in Oak Harbor, and service on Sundays for the first time in the agency's history. Transit service, including complementary paratransit service, will extend past the existing fixed route service areas to new un- and under-served areas. As part of this, the agency acquired new scheduling software so that paratransit and ondemand customers can schedule their trips on-line, if they wish, instead of calling the Island Transit dispatch.

Prior to increasing the service, the agency completed a financial feasibility study to ascertain



what level of improvements could be financially sustained. That work was completed by The Center for Economic and Business Research at Western Washington University.

In addition, in 2022 the agency began addressing our climate crisis through several initiatives. This included the installation of solar panels at the two operating bases during the summer of 2022. That project was funded largely by a grant from the State of Washington's Commerce Department. The year also saw the creation of an employee team focused on sustainable business practices, called the "Green Team".

In the spring of 2022 the Washington State Legislature passed the Move Ahead Washington investment package. In that measure, thanks to the work of State Representative Dave Paul, Island Transit was awarded two major grants: \$330,000 for the Terry's Corner Staff Support Facility (on Camano Island) and \$7 million for Island Transit's transition to zero emissions.

With the design of Island Transit's route network updated, the agency moved to determine the technologies that would work best to decarbonize the agency's fleet. To assist in this process, again with grant funds from the State of Washington, the agency retained HATCH LTK to study the unique needs of our agency and county. The Facilities and Maintenance Manager along with the Executive Director, also increased their focus on learning about zero emission options. As the ultimate decision makers, the Island Transit Board of Directors received best practice information and traveled to see firsthand the different technologies at work.

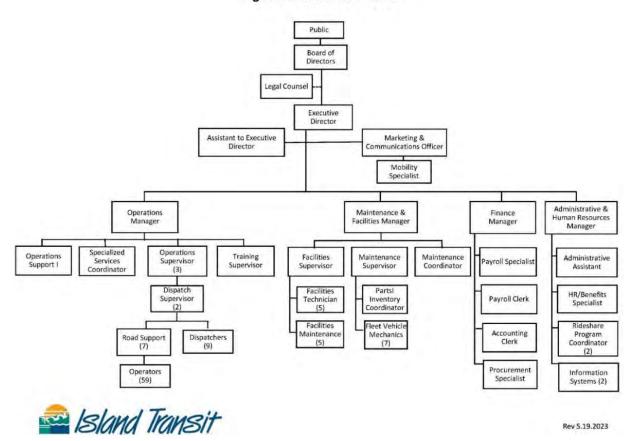
All of this culminated in the Board's adoption of a Zero Emission Fleet Transition plan for Island Transit on March 3, 2023. (See Appendix A.) This plan sets a goal of transitioning the bus fleet by 2035, and the remainder of the fleet by 2040. It also sets forth a schedule for making infrastructure improvements to support this transition, including the installation of fueling and charging infrastructure at the agency's two operating bases. The Whidbey bus fleet will be replaced with hydrogen fuel cell buses and battery electric on-demand and paratransit vehicles. On Camano the entire fleet is planned to be battery electric.

During this time the agency, helped by consultants KPFF, has been working on two major capital projects: the Terry's Corner Staff Support facility (a bathroom and breakroom for our Camanobased Coach Operators), and the South Whidbey Transit Center project. The latter project was just awarded \$7.52 million in federal funds for design and construction from the Federal Transit Administration. A \$4 million CDS request for that project is also in the FY2024 markup.

For a list of grants awarded administratively to Island Transit though 2023, see Appendix B.



Organizational Chart - 2023



As of July 2023 Island Transit had 122 full-time equivalent (FTE) and 7 PTE employees.

Department	Full-time Equivalent (FTE) Employees
Executive Administration	2 FTE
Administration & Human Resources	7 FTE
Finance	5 FTE
Information Technology	2 FTE
Operations	14 FTE
Operators	53 FTE (5 PTE)
Dispatchers	11 FTE
Maintenance	13 FTE
Facilities Maintenance	15 FTE (2 PTE)

Organizational Structure and Governance

A six-member Board of Directors governs Island Transit. They provide agency financial oversight and policy guidance. The Board of Directors hold monthly regular open public business meetings. The Board of Directors is comprised of the following:



- Two Island County Commissioners
- One elected official from the City of Oak Harbor
- One elected official from the Town of Coupeville
- One elected official from the City of Langley
- One labor representative (non-voting)

SECTION 2 – FACILITIES

Island Transit dispatches all Whidbey Island services and weekend Camano Island services from its main administrative/operations and maintenance facilities at 19758 SR 20, in Coupeville on Whidbey Island. The Camano satellite base located on 174 Can Ku Road dispatches weekday service on Camano Island.

There are a total of eight park & rides in Island County; Island Transit owns two of these park & rides, aka "Transit Parks". The Noble Creek Transit Park is located in Langley and has 47 stalls. The Prairie Station Transit Park is located in Coupeville and has 48 stalls. Both transit parks reflect the communities where they are located. The focus at Langley's Noble Creek transit park is native plants and local artists' work. The focus of the Coupeville Prairie Station transit park is the prairie and farms of Ebey's Landing National Historical Reserve, as well as native plants of the area.

Island Transit also owns three undeveloped properties on Whidbey and Camano Islands that may lend themselves to future uses. These properties are located in the following areas:

- SR 525 and Bush Point Road intersection (Whidbey)
- SR 20 and SR 525 intersection (Whidbey)
- South Camano Drive and East Mountain View Road intersection (Camano)

Information about Island Transit's rolling stock, owned equipment, and facility inventory are found in the agency's Transportation Asset Management Plan (TAMP). See Appendix C.

SECTION 3 - SERVICE CHARACTERISTICS

Island Transit provides fixed route bus service, commuter express bus service, on demand, and paratransit service within ¾ of a mile of fixed route lines. All Island Transit buses are accessible to persons with Americans with Disabilities Act (ADA) requirements and Island Transit's fixed route and paratransit services are fare free for all.

The agency provides service on Whidbey Island, Monday – Friday, 3:45 AM to 7:50 PM, and on Saturday-Sunday, from 6:45 AM – 7:00 PM. Services are provided on Camano Island Monday – Friday, 5:45 AM – 7:30 PM, and Saturday-Sunday 7:30 AM – 6:30 PM. Island Transit does not



currently provide service on the following holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; and Christmas Day.

Whidbey Island service currently includes nine weekday fixed routes, six weekend fixed routes, one on-demand route, and a seasonal Central Whidbey State Parks route.

- A primary connecting route service between Oak Harbor, Coupeville, Greenbank,
 Freeland, Bayview, and Clinton Ferry.
- Ten routes serving the City of Oak Harbor.
- Seven routes serving South Whidbey Island, including Bayview, Langley, and Scatchet Head.
- Two routes serving Central Whidbey Island including Coupeville and the Coupeville/Port Townsend Ferry terminal.
- Clinton Commuter serving afternoon commuters from Clinton/Mukilteo Ferry to area park and rides.
- Naval Air Station Whidbey Island accessed via an on-demand service.
- On-demand service Monday to Friday currently servicing northeast of Oak Harbor city limits. Additional On-demand zones are planned to begin in late 2023.
- A County Connector route serving between Island and Skagit Counties, with connections from Oak Harbor to March's Point (located in Skagit County) and from Camano Island to Skagit Station (located in Mount Vernon).

On Camano Island services include five weekday fixed routes, and four weekend fixed routes:

- Two island-wide rural routes.
- Service from Camano Island to Stanwood destinations, including shopping, schools, medical and other services.
- County Connector service between Camano Island and Mt. Vernon.
- County Connector service from Camano Island to Everett Station, Everett Community College, WSU Everett, and near Providence Regional Medical Center Everett.

Saturday and Sunday service for Whidbey and Camano Islands includes:

- Routes serving North, Central, and South Whidbey Island, and Camano Island.
- A primary connecting route between Oak Harbor, Coupeville, Coupeville Ferry, Greenbank, Freeland, Bayview, and Clinton Ferry.
- A connecting route to Deception Pass State Park.
- A Central Whidbey State Parks route serving the Coupeville Ferry, Fort Casey State Park, Island County Historical Museum, and Fort Ebey State Park.



- A connecting route serving the Coupeville/Port Townsend Ferry terminal.
- A County Connector route serving between Island and Skagit Counties, with connections from Oak Harbor to March's Point (located in Skagit County) and from Camano Island to Skagit Station (located in Mount Vernon, Skagit County).

All fixed route buses are equipped with bike racks and can accommodate two mobility devices. There are rental bike lockers available in select locations.

Paratransit Service

Island Transit Paratransit service is origin-to-destination, shared-ride public transportation services required by the ADA for eligible persons. All of Island Transit's fixed route buses are wheelchair accessible, offer designated priority seating, and boarding and seating assistance from Operators. Island Transit Paratransit service operates the same days and hours as Island Transit's fixed route services, within ¾ of a mile of the fixed route.

Rideshare (Vanpool) Program

Island Transit provides an additional transportation service through a public Rideshare program. Five new battery-electric vehicles were just added to the service. With new legislation, beginning September 1, 2021, a minimum of three participants are required to be eligible for a Rideshare vehicle. The trip must start or stop within Island County to qualify for the program. Rideshare groups travel between 10 - 155 daily round trip miles, traversing six counties. Riders 18 years of age and younger ride free in Rideshare vehicles.

The Rideshare program offers benefits on several levels. Rideshare participants realize improved travel times through use of the HOV lanes and priority loading onboard Washington State Ferries. Employers may provide benefits as well, such as preferred parking or funding incentives to reduce or pay for the Rideshare service. In addition, reducing single occupancy vehicle use decreases traffic congestion during peak commute hours. Washington residents benefit from reduced vehicle emissions by eliminating additional vehicles from the roads.

For statistical information regarding ongoing and projected operations for fixed-route, paratransit, and rideshare service, see Section 10.

RideLink

The agency also runs a program called RideLink that works with local service organizations assisting elderly, disabled, veterans, low income, and people with limited English proficiency. The program provides the use of vans to transport their clients. This program allows local service organizations the flexibility to schedule client outings, work programs, access to services, and training as their schedule dictates, as well as those who may need access to services beyond



Island Transit's fixed route and paratransit areas or hours of operation. Island Transit, as a partner in the program, provides the vehicle, vehicle maintenance, driver training and vehicle insurance. The partnering agency covers the cost of fuel, provides insurance to cover the deductible, and records and reports usage to Island Transit. Nonprofit social service organizations served include:

• Whidbey Veterans Resource Center (2). Transportation for South end Whidbey Island Veterans to the VA Hospital in South Seattle three times a week

Systemwide 2022 Ridership Statistics: Systemwide ran increase of (Fixed/Deviated Route, Paratransit, and Vanpool) with 380,574 boardings, increased 13.9% from the previous year. The increase reflects the slow and steady recovery from the 2020 COVID-19 downturn which triggered three service changes. Fixed/Deviated Route boardings increased 2.85%, Rideshare (Vanpooling) rose 4.85%, and Paratransit boardings climbed 19.21%.

Rideshare (Vanpool) 2022 Ridership Statistics: The 58,540 passenger trips recorded during 2022 was an increase of 2.33% from the previous year's tally. Rideshare (Vanpool) Groups fluctuated between 20 and 25, influenced by the COVID-19 pandemic, retirements at Boeing and other corporations, and the implementation of remote work. Vans operate throughout a six-county region. With trained volunteer drivers in place, these vanpools carried an average of 122 daily riders, removing over approximately 98 vehicles from congested roadways and ferries each weekday.

SECTION 4 – SERVICE CONNECTIONS

Island Transit serves the population of Island County, as well as providing connections outside of Island County. These regionally significant connections include, but are not limited to, the following:

Skagit Transit	Whidbey Island service connections six days a week between							
	Harbor Station in Oak Harbor and the Skagit Transit March's Point							
	Park & Ride. (Skagit Transit only serves March's Point six days out							
	of seven.) Camano Island service connections between Terry's Corner Park & Ride and Skagit Station in Mount Vernon. Skagit							
	Station provides follow on connections with Skagit Transit,							
	Whatcom Transit, Amtrak, and Greyhound.							
Everett Transit	Camano Island service connections between Terry's Corner Park							
	& Ride and Everett Station. Everett Station provides follow on							
	connections with Everett Transit, Sound Transit, Community							
	Transit, Skagit Transit, Greyhound Lines, Northwestern Trailways,							
	and Amtrak.							



Coupeville Ferry Terminal	Island Transit provides connections to the Washington State Ferry
	system at the Coupeville terminal for transfer to Port Townsend.
	In Port Townsend Jefferson Transit provides connecting services
	for transit riders.
Clinton Ferry Terminal	Island Transit provides connections to the Washington State Ferry
	system at the Clinton terminal for transfer to Mukilteo. In
	Mukilteo, Community Transit, Everett Transit, and Sound Transit
	provide connecting services for transit riders.
Amtrak	Island Transit Routes 411W, 411C and 412 provide service or
	connections to Skagit Station and Everett Station where Amtrak
	services are available.
Greyhound Lines	Island Transit Routes 411W, 411C and 412 provide service or
	connections to Skagit Station and Everett Station where
	Greyhound services are available.
Park & Rides (P&R)	Fixed route service is available at the following lots:
	Clinton Park & Ride, SR 525 & Deer Lake Road
	Noble Creek Transit Park, Camano Avenue & Sandy Point Road,
	Langley*
	Bayview Park & Ride, SR 525 at Bayview Road
	Freeland Park & Ride, SR 525 (Trinity Lutheran Church) & Woodard
	Greenbank Park & Ride, SR 525 & Bakken Road
	Prairie Station Transit Park, 201 S. Main, Coupeville*
	Harbor Station Transfer Center, 760 SE Bayshore Drive,
	Oak Harbor*
	Oak Harbor Park & Ride, SR 20 & Hoffman Road
	Terry's Corner Park & Ride, SR 532 & Sunrise Boulevard, Camano
	Island
	*Indicates facilities Owned and Maintained by Island Transit.
National and Washington	Island Transit provides access to Ebey's Landing National Historical
State Parks	Reserve, Deception Pass State Park, South Whidbey State Park,
	and Fort Casey State Park on Whidbey Island, and Cama Beach
	State Park on Camano Island.
Educational Facilities	Fixed route service is available to many public and private schools
	throughout the service area. A number of these routes coincide
	with schools' hours of operation. Island Transit provides service to
	the Skagit Valley College campus in Oak Harbor and Everett
	Community College in Everett.



SECTION 5 – REPORT and ACTIVITIES ACCOMPLISHED IN 2022

Per RCW 47.04.280, the Washington State Legislature outlined policy goals for the planning, operation, performance of, and investment in the state's transportation system. Below are the policy goals, also referred to as the WSDOT State Transportation Goals, plus our additional goal of Equity, followed by an account of Island Transit's compliance activities in 2022. Many of these activities addressed multiple goals.

Economic Vitality – promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy

- Began the implementation of Island Transit *Maximized*, expanding Island Transit's bus service to meet the changing needs of Island County.
- Kept transit service running despite workforce challenges.
- Positioned the agency favorably for grant awards and increased funding; Executive
 Director is a Board member of The Bus Coalition (a national organization that advocates
 for increasing federal bus funding), the President of the Washington State Transit
 Association (WSTA), and treasurer of the Economic Development Council of Island
 County.
- Steering Committee member of North South Transportation Alliance (NSTA).
- Maintained the relationship with Island County Tourism.
- The Washington State Transit Association successfully advocated for the passage of Move Ahead Washington, which significantly increased state funding of local transit agencies including Island Transit.

Preservation – maintain, preserve, and extend the life and utility of prior investments in transportation systems and services

- Obtained approval to use federal bus funding to purchase nine battery electric ADAaccessible on-demand vehicles, rather than conventionally powered vehicles for vehicle replacements.
- Solar panels were installed at the Whidbey and Camano operating facilities.
- Spent federal funding received through the CARES, CRRSAA, and ARP pandemic response programs.
- Continued installing bus stop seats.
- Completed update to the agency's Transportation Asset Management plan (TAMP).

Safety – provide for and improve the safety and security of transportation customers and the transportation system

 Continued health and safety best practices adopted during the COVID-19 pandemic including daily hydrostatic bus cleaning, universal mask availability, hand sanitizers on



buses, bus air sanitation systems, and safety shields for coach.

- Continued on-site security personnel at Harbor Station in Oak Harbor.
- Distributed yellow reflective safety vest to bus riders.
- Installed two safety harness systems for working on bus rooftops.

Mobility – improve the predictable movement of goods and people throughout Washington State

- Began implementation of the Island Transit Board approved Island Transit *Maximized* set of bus services improvements.
- Participated in Island Regional Transportation Planning Organization (IRTPO) Policy Board, Technical Advisory Committee (TAC), and Transportation Equity Committee (TEC).
- Continued the RideLink pilot program to support connections between service organizations and their clients.
- Continued the work to build a new transit center on South Whidbey which will improve the movement of people on our system and throughout the region.

Environment – enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment

- Undertook a consultant-led feasibility study process to plan Island Transit's transition to a zero emission fleet.
- Installed solar panels at our Coupeville and Camano operating base.
- Purchased five battery electric Rideshare (formerly vanpool) vehicles.
- Continued planning for South Whidbey Transit Center focusing on the opportunity to further decrease the public's carbon footprint, as well as meet Island Transit's decarbonization goals.

Stewardship – continuously improve the quality, effectiveness, and efficiency of the transportation system

- Began efforts to select a new customer-focused scheduling software for Island Transit's new on-demand bus service and paratransit service.
- Begin design for a staff support facility (bathroom and breakroom) at Island Transit's Terry's Corner Transit Center on Camano Island.
- Provided flashlights and reflective wristbands to improve visibility and make it easier for Coach Operators to see passengers who are waiting for the bus when it is dark.
- Received line items of \$331,000 (Terry's Corner Transit Center staff support facility) and
- \$7 million (transition to a zero emission fleet) in the state's Move Ahead Washington transportation investment package passed by the legislature.

Equity – ensure that everyone has access to opportunities to thrive

 Continued to provide disadvantaged populations access to jobs, school, medical care, shopping, recreation, and social services during the pandemic.



- Began implementation of Island Transit Maximized bus service improvements, increasing access to opportunities for essential workers and disadvantaged populations.
- Began supportive employment of a disabled individual.
- Provided new non-discrimination training for all staff.

SECTION 6 – ONGOING AND PLANNED ACTIVITIES FOR 2023

The activities in Section 6 are ongoing and planned strategies for 2023. They contribute to Island Transit's transportation goals:

Economic Vitality

- Continue to implement service improvements outlined in the Board adopted Island
 Transit Maximized plan. This will result in a more than 30% increase in Island Transit's
 service, including Sunday service, for the first time in the agency's history.
- Continue working on planning and site acquisition for South Whidbey Transit Center, with the assistance of an architectural and engineering consultant.
- Continue to participate in North Sound Transportation Alliance (NSTA), Washington State Ferries planning processes, and the Island Region Transportation Planning Organization (IRTPO).
- Participate as a board member in The Bus Coalition (TBC), Washington State Transit
 Association (WSTA), local service organizations, Economic Development Council for Island
 County, and chambers of commerce.
- Collaborate with Island County Tourism on materials that promote agency service as an option for visiting Island County.

Preservation

- Monitor service metrics to provide informed recommendations to the board for future service adjustments or expansions. Review services accordingly and recommend adjustments to improve efficiency or safety that meet community needs.
- Restore or maintain facilities and equipment in a state of good repair. Modify capital
 reserve schedules based on available funding to support the Transit Asset Management
 Plan. Ensure fleet sized appropriately. Continued monitoring and evaluating park & ride
 usage.
- Complete design and begin construction of a staff support facility at Terry's Corner Transit Center on Camano Island.
- Participate in Surface Transportation Block Grant (STBG) and Transportation Alternatives
 (TA) funding opportunities, as well as the State Consolidated grant program, and other
 federal, state, and local funding programs, as appropriate.



Safety

- Review safety measures for agency bus yards and facilities, implementing improvements.
- Retain safety consultant to assess safety practices at Island Transit and update safety polices for the agency.
- Maintain COVID-19 adopted cleaning measures in agency vehicles and facilities.

Mobility

- Continue the implementation of Island Transit *Maximized* service improvements, including Sunday service and other improvements.
- Provide transit for essential workers, people with disabilities, disadvantaged populations, area residents and tourists.
- Complete the site acquisition process for a new transit center on south Whidbey Island.
- Awarded a \$7.52 million grant from the Federal Transit Administration to plan, design, and build the South Whidbey Transit Center. \$4 million CDS request for the project in FY24 markup.
- Complete installation of Passenger Information Systems in existing buses, thereby improving speed, reliability, and access to transit, as well as improving rider experience.

Environmental Quality and Health

- Island Transit Board of Directors adopted a zero emission fleet analysis, providing a zero emission fleet transition plan for entire fleet. .
- Continuing to engage staff through the employee-led "Green Team" to seek ways to improve the sustainability of the agency's work practices and educate employees on opportunities to reduce Island Transit's carbon footprint.
- Undertake an energy efficiency assessment of the agency's operating bases and facilities to find opportunities to conserve energy and reduce the carbon footprint.
- Complete improvements to the server-room HVAC system and begin work to update the HVAC system for the Coupeville operating base.
- Begin planning for hydrogen fueling and electric charging needed for the transition to zero emission vehicles.
- Assign battery electric Rideshare vehicles to interested vanpool groups.
- Begin property acquisition and continue planning for South Whidbey Transit Center focusing on the opportunity to further decrease the public's carbon footprint, as well as meet Island Transit's decarbonization goals.

Stewardship

- Continue to improve ADA accessibility and overall passenger comfort at bus stops by adding and replacing passenger amenities such as seating, cover, lighting, landing pads, etc.
- Conduct the Community Surplus Vehicle Program (CVSP) to improve equitable access to transportation throughout Whidbey and Camano Islands and strengthen connections in



- the community.
- Install alignment equipment in the Maintenance shop to provide less costly, in-house bus realignments.
- Complete efforts to select a new customer-focused scheduling software for Island Transit's new on-demand bus service and paratransit service.
- Acquire new payroll software to improve efficiency of system process.
- Begin phased in implementation of rebranding of Island Transit's logo and colors. This includes replacing the old logo and paint scheme on the agency's materials, website, facilities, and vehicles. This rebranding comes as the agency implements Island Transit *Maximized* service improvements and adds a new mode of service: On-Demand.

Equity

- Continue the implementation of Island Transit *Maximized* service improvements, including Sunday service to help essential workers and disadvantaged populations.
- Begin property acquisition for a new transit center in Whidbey's south end.
- Provide transit service, including complementary paratransit service, that will extend past the existing fixed route service areas to new un- and under-served areas.

Grants: See Appendix B for grants awarded to Island Transit through 2023.

SECTION 7 – PLANNED ACTIVITIES FOR 2024

The activities in Section 7 are action strategies for 2024. They will contribute to meeting Island Transit's transportation goals:

Economic Vitality

- Complete the implementation of Island Transit *Maximized* service improvements, including the addition of late evening.
- Continue rebranding of Island Transit's logo and colors. This includes replacing the old logo and paint scheme on the agency's materials, website, facilities, and vehicles.
- Complete preliminary design and engineering for new South Whidbey Transit Center.

Preservation

- Monitor service metrics and provide informed recommendations to the board for future service adjustments or expansions. Review services accordingly and recommend adjustments to improve efficiency or safety that meet community needs.
- Restore or maintain facilities and equipment in a state of good repair. Modify capital
 reserve schedules based on available funding to support the Transit Asset Management
 Plan. Ensure fleet sized appropriately and reflects zero emission goals. Continue
 monitoring and evaluating park & ride usage.
- Participate in Surface Transportation Block Grant (STBG) and Transportation Alternatives (TA) funding opportunities, as well as the State Consolidated grant program, and other federal funding programs, as appropriate.



- Study and plan HVAC upgrades for Coupeville Operating base.
- Begin phased in implementation of rebranding of Island Transit's logo and colors. This
 includes replacing the old logo and paint scheme on the agency's materials, website,
 facilities, and vehicles. This rebranding comes as the agency implements Island Transit
 Maximized service improvements and adds a new mode of service: On-Demand.
- Update agency's Transit Asset Management plan (TAMP).

Safety

- Continue practicing COVID-19 health and safety measures though the end of the pandemic. Maintain staff engagement.
- Complete annual training plan that provides for increased awareness, skills and tools that improve the agency's safety posture for customers, operators, and staff. Work with other community agencies where practicable to leverage or improve existing training.
- Review the agency emergency management plan, as well as participating in coordinated regional emergency management planning process.
- Build Terry's Corner staff support facility.

Mobility

- Implement new service, including late evening service to better meet the mobility needs of the public, business community, and visitors in a post- pandemic world.
- Conduct public outreach to better inform or educate the public on services and bus capabilities.
- Improve website and trip planning tools. Move the website to a new platform that better meets the agency's needs.
- Complete preliminary design and engineering for new South Whidbey Transit Center.

Environmental Quality and Health

- Begin acquiring zero emission vehicles, starting with on-demand vehicles; install the charging stations needed at the operating base for these new vehicles. Complete plans for hydrogen fueling.
- Work with third party vendor to install publicly accessible electric vehicle charging stations at Terry's Corner Transit Center.
- Complete preliminary design and engineering for new South Whidbey Transit Center.

Stewardship

- Complete implementation of multiple on-demand service zones which in part replace unproductive scheduled bus service.
- Auction and/or surplus excess vehicles and equipment.
- Continue rebranding of Island Transit's logo and colors. This includes replacing the old logo and paint scheme on the agency's materials, website, facilities, and vehicles.
- Hire new staff to achieve ZEV transition and for upcoming capital projects.

Equity

Complete implementation of Island Transit Maximized service improvements.



- Continue to support employment program for staff with disabilities.
- Review opportunities to improve access to information via various channels, including our website, particularly for those who are disadvantaged or differently abled.
- Implement new initiatives to reach small, disadvantaged and/or woman-owned businesses. Initiate an annual Disadvantaged Business Enterprises (DBE) conference in partnership with the Washington State Office of Minority and Women's Enterprises (OMWBE).

SECTION 8 – PLANNED ACTIVITIES FOR 2025 – 2028

Island Transit will continue to provide efficient fixed route service, a strong rideshare program, and ADA paratransit service within three-quarters of a mile of fixed route lines. Actions planned over the next six years are intended to reduce impact on the environment and improve access to employment centers, shopping areas, health facilities, housing areas, education facilities, and other existing bus, rail, and ferry systems for all persons, irrespective of age, income, or physical challenges.

Planning includes capital projects and service expansions that may require grant funding to complete. The timing of grant funds can be unpredictable. **Project timelines may be pushed forward or back, depending on staffing and grant availability.** In the event that staff or grant funding is not available or insufficient to complete a project, it will be reevaluated. Assumptions for ridership, any fares, and costs are internal estimates based on the best available information.

<u>2025 - 2028</u> <u>Planned Activities</u>

Planning

- Assess and evaluate efficiency of operations to find opportunities to increase and improve service.
- Provide service to passenger-only ferry.
- Support tourist economy by promoting bicyclist trips on buses and efforts to create off-island parking for those who want to leave their car at home.
- Evaluate reserves and investment policies.
- Apply for funding through federal, state, and local grants, as available.

Facilities

- Complete construction of South Whidbey Transit Center.
- During construction and remodeling projects, build facilities which are "light on the earth" and meet industry environmental sustainability standards.
- Install the necessary charging and fueling equipment to support the new zero emission vehicles. Assess the need for additional space at both operating bases to support zero emission and other future needs.



- Continue to improve ADA accessibility and overall passenger comfort at bus stops by adding and replacing passenger amenities such as seating, cover, lighting, landing pads, etc.
- Look for opportunities to install electric vehicle charging stations at agency facilities when construction and funding opportunities arise.
- Put in place energy conservation and carbon reduction measures at agency facilities if not completed in earlier years.
- Complete the replacement of the old logo and paint scheme on the agency's materials, website, facilities, and vehicles.

Equipment

- Purchase zero emission vehicles as outlined in the zero emission vehicle transition plan.
- Update maintenance equipment that will be needed for zero emission vehicles.

Training

- Train vehicle technicians on how to work on zero emission vehicles.
- Train Coach Operators on how to drive the new ZEV fleet.
- Train fuelers on how to fuel the new fleet.



Section 9 :: Capital Improvement Program: 2023 - 2028										

These capital improvement items are also shown in Section 11, Capital Expenses. We will actively seek grant funds to recover the costs to procure these items. In the event that grant funding is not available or insufficient to complete these projects within the next six years, Island Transit might reevaluate these purchase deadlines.

See Appendix B a complete list of assets. This schedule is calculated from Island Transit's asset inventory list, assuming additions and replacements according to the FTA's recommended useful life benchmarks (ULB).

		2023	2024		2025		2026			2027	2028	
Description	Num.	A mount	Num.	A mount	Num.	A mount	Num.	A mount	Num.	A mount	Num.	A mount
Fixed Route Buse	s											
35' Electric	-	-	-	-	1 -1	-	3	3,504,131	-	-	2	2,575,53
40' Electric	_	_	_	-	1 -	_	-	-	2	2,552,563	-	_,_,_,
35' Hydrogen	_		2	2,415,000	2	2,535,750	-	_	4	5.591.329	2	2,935,44
40' Hydrogen	_		3	3,780,000	3	3,969,000	2	2,778,300	-		<u> </u>	2,000,11
Electric Vans	_		11	2,936,768	<u> </u>	0,000,000	-	2,110,000	_		-	
Medium Diesel	_		2	403,445			-	_	_	_	-	
Bus Upgrades		765,931		1.000.000								
Total Bus Items	-	765,931	18	10,535,213	5	6,504,750	5	6,282,431	6	8,143,892	4	5,510,98
Total Das items		100,001	10	10,000,210		0,304,730		0,202,431	-	0,143,032	7	3,310,30
Rideshare Vehicle	es											
7/8 Passenger	-	-	15	866,250	6	363,825	2	127,339	17	1,136,498	-	
12 Passenger	-	-	14	1,176,000	6	529,200	-	-	-	-	5	510,51
15 Passenger	-	-	3	315,000	-	-	-	1	-	-	-	
Charging Equipment	-	-	2	-	-	-	-	-	-	-	-	
Total Vans		-	34	2,357,250	12	893,025	2	127,339	17	1,136,498	5	510,51
Support Vehicles					\vdash							
5 Passenger	-		_	_	3	181,913	-	_	-	_	2	140.39
7/8 Passenger	-		9	519,750		101,010	-	_	-	_	-	140,00
12 Passenger	-	-	3	252,000	- 1	-	-	-	-	-	-	
Truck	1	77,869	-	-	-	-	-	-	-	-	-	
Total Sup. Veh.	-	77,869	12	771,750	3	181,913	-	-	-	-	2	140,39
Other Capital												
Computer	-	69,414	-	94,000	-	100,000	-	100,000	-	100,000	-	80,00
Other Equipment	-	528,599	-	240,000	-	-	-	-	-	-	-	400.00
Facilities	-	516,812	-	8,470,000	-	100,000	-	100,000	-	100,000	-	100,00
Park & Rides	-	-	-	100,000	-	100,000	-	100,000	-	100,000	-	100,00
Climate Sustainablity	-	-	-	100,000	-	100,000	-	100,000	-	100,000	-	100,00
Land Acquisition	-	-	-	3,000,000	-		-	-	-	-	-	
ZEV Fueling Equip.	-	- 4444.000	-	3,000,000	3	893,025	-	-	-	- 400 000	-	200.00
Total Other	-	1,114,826	-	15,004,000	3	1,293,025	-	400,000	-	400,000	-	380,00
Total Cost		1.958.626		28.668.213	\vdash	8.872.713		6.809.770		9.680.390		6.541.88
Total Cost		1,330,020		20,000,213		0,072,713		0,009,770		9,000,390		0,341,



SECTION 10:: Operating Data: 2023 - 2028

This schedule is based on actual 2022 and 2023 data. We're predicting fixed and Paratransit hours to increase 7%, and fixed and Paratransit miles to increase 7% in 2023 with service expansion, and 1% thereafter. We are predicting fixed, deviated, and Paratransit ridership to increase 14% YOY in 2023 with planned service expansion, and 5% thereafter. Rideshare hours, miles, and ridership are predicted to increase 1% from 2023-2028.

Fixed & Deviated Route Whidbey	2023	2024	2025	2026	2027	2028
Vehicle Total Hours	52,604	53,130	53,661	54,198	54,740	55,287
Vehicle Revenue Hours	37,852	38,230	38,613	38,999	39,389	39,783
Vehicle Total Miles	1,117,811	1,128,788	1,140,075	1,151,476	1,162,991	1,174,621
Vehicle Revenue Miles	1,021,656	1,031,873	1,042,191	1,052,613	1,063,139	1,073,771
Passenger Trips	260,277	273,291	286,955	301,303	316,368	319,532
Diesel Fuel Consumed	140,968	142,378	143,802	145,240	146,692	148,159
Unleaded Fuel Consumed	2,507	2,532	2,558	2,583	2,609	2,635
Propane Fuel Consumed	29,734	30,031	30,332	30,635	30,941	31,251
Fixed & Deviated Route Camano	2023	2024	2025	2026	2027	2028
Vehicle Total Hours	17,694	17,871	18,050	18,230	18,412	18,597
Vehicle Revenue Hours	12,178	12,300	12,422	12,547	12,672	12,799
Vehicle Total Miles	404,460	408,504	412,589	416,715	420,882	425,091
Vehicle Revenue Miles	395,640	399,596	403,592	407,628	411,705	415,822
Passenger Trips	57,756	60,644	63,676	66,860	70,203	70,905
Diesel Fuel Consumed	52,417	52,941	53,471	54,005	54,545	55,091
Unleaded Fuel Consumed	2,887	2,916	2,945	2,974	3,004	3,034
Propane Fuel Consumed	2,001	2,810	2,840	2,814	3,004	3,034
Propane Fuel Consumed	-	-	-			
ADA Demand Response	2023	2024	2025	2026	2027	2028
Vehicle Total Hours	22.644	22,871	23,099	23,330	23,564	24,742
Vehicle Revenue Hours	16,925	17,094	17,265	17,438	17,612	18,493
Vehicle Total Miles	366,160	369,822	373,520	377,255	381,028	400,079
Vehicle Revenue Miles	285,657	288,513	291,399	294,313	297,258	312,118
Passenger Trips	47,445	49,817	52,308	54,923	57,669	60,553
Diesel Fuel Consumed	1,322	1,336	1,349	1,362	1,376	1,445
Unleaded Fuel Consumed	9,287	9,380	9,474	9,568	9,664	10,147
Propane Fuel Consumed	25,651	25,908	26,167	26,429	26,693	26,960
Rideshare	2023	2024	2025	2026	2027	2028
Vehicle Total Hours	14,443	14,587	14.733	14.881	15.029	15,180
Vehicle Revenue Hours	14,443	14,587	14,733	14,881	15,029	15,180
Vehicle Total Miles	365,249	368,902	372,591	376,317	380,080	383,881
Vehicle Revenue Miles	366,803	370,471	374,175	377,917	381,696	385,513
Passenger Trips	60,580	61,186	61,798	62,416	63,040	63,670
Unleaded Fuel Consumed	19,953	20,153	20,354	20,558	20,764	20,971
Support Vehicles	2023	2024	2025	2026	2027	2028
Miles - Support Vehicles	101,968	101,968	101,968	101,968	101,968	101,968
Miles - Rideshare used as Support Vehicles	5,683	5,683	5,683	5,683	5,683	5,683
Totals	2023	2024	2025	2026	2027	2028
Vehicle Total Hours	107,385	108,459	109,543	110,639	111,745	113,805
Vehicle Revenue Hours	81,397	82,211	83,033	83,864	84,702	86,254
Vehicle Total Miles	2,361,132	2,383,666	2,406,427	2,429,414	2,452,632	2,491,323
Vehicle Revenue Miles	2,069,756	2,090,453	2,111,358	2,132,471	2,153,798	2,187,224
Passenger Trips	426,057	444,937	464,737	485,501	507,280	514,659
Diesel Fuel Consumed	194,708	196,655	198,621	200,608	202,614	204,695
Unleaded Fuel Consumed	34,634	34,980	35,330	35,683	36,040	36,787
Propane Fuel Consumed	29,734	30,031	30,332	30,635	30,941	31,251



SECTION 11 :: Projected Revenue and Expenditure: 2023 - 2028 (Page 1 of 2)

Major Assumptions:

- Capital Expenditures are calculated from Island Transit's asset inventory list and assumes purchases to meet the FTA's Useful Life Benchmark (ULB).
- Items highlighted in green reveal change in reserve funds. They do not affect the Revenue or Expenditure totals or Total Net Change in Cash.

Growth Rate Assumptions:

- 1. Operating Expenditures are projected to grow 7% YoY starting in 2024.
- 2. State and Federal Grant Contract Revenue (not listed above) is projected to grow at 3% every biennium starting 2023.
- 3. Interest and Miscellaneous revenue is projected to grow at 1% YoY starting 2024.
- 4. Local Sales Tax is projected to grow 3% starting 2024.

Description	2023 Projected	2024 Projected	2025 Projected	2026 Projected	2027 Projected	2028 Projected
Beginning Reserves			-			
Bus	11,192,502	12,100,886	4,948,441	12,590,924	10.353,665	3,922,540
Van	985,454	1,011,676	212.861	-		
Support Vehicle	417,168	445.249	12.	-	28,081	56,162
Other Capital	11,794,733	20.924.073	14.130.073	14.130.073	14.130.073	14,110,073
Land Acquisition	3,000,000	3,000,000	-	74,100,070	- 14,100,010	14,110,010
Fuel	600,000	800,000	1,000,000	1,200,000	1,250,000	1,300,000
Emergency Operating	2.299,988	2,399,988	2,499,988	2,599,988	2,699,988	2,799,988
General Cash	22.564.596	21,254,219	30,254,738	24,113,969	28,936,408	33,069,771
Total Beginning Reserves:	52.854.441	61,936,091	53,046,101	54,634,955	57,398,214	55,258,534
Total Dogatiling Nooot voc.	02,009,991	01,500,051	00,040,101	UH,UUH, 200	01,030,214	00,200,004
Operating Revenue						
Local Sales Tax	16,734,274	17,236,303	18,098,118	19,003,024	19,953,175	20,950,834
State and Federal Grant Contracts	5,048,402	7,262,244	7,516,789	6,619,869	6,816,744	6,926,066
Rideshare	181.805	180,000	181,800	183.618	185,454	187,309
Blike Locker Rental	-	200	202	204	206	208
Interest	1,136,000	1,500,000	1,515,000	1,530,150	1,545,452	1,560,906
Miscellaneous	65,000	65,000	65,650	66,307	66,970	67,639
Other Grants	2.200	2.500	2,500	2.500	2,500	2,500
Transfer from Fuel Reserve	2	-	9	-		
Transfer from Emergency Operating Reserve	-	-	-	-		-
Total Operating Revenue:	24,167,681	26.282.246	27,380,059	27,405,671	28,570,500	29,695,462
Operating Expenditures						
Whidbey Operations	4,754,646	6,301,757	6,742,880	7.214,881	7,719,923	8,260,317
Information Systems	354,486	643,697	688,756	736,969	788,556	843,755
Transit Parks	24,763	27,239	29,146	31,186	33,370	35,705
Paratransit	1,169,595	1,445,996	1,547,215	1,655,520	1,771,407	1,895,405
Camano Operations	2,146,959	2,804,584	3,000,905	3,210,968	3,435,736	3,676,238
Administration	2,848,412	2,816,765	3,013,938	3,224,914	3,450,658	3,692,204
Rideshare	307,416	331.044	354,217	379,012	405,543	433,931
Vehicle Maintenance	1.835.648	3.268.026	3,496,788	3,741,563	4.003,472	4.283,715
Facilities Maintenance	947,362	1,301,299	1,392,390	1,489,857	1,594,147	1,705,738
Transfer to Fuel Reserve	200,000	200,000	200,000	50,000	50,000	50,000
Transfer to Emergency Operating Reserve	100,000	100,000	100,000	100,000	100,000	100,000
Total Operating Expenditure:	14,389,288	18,940,406	20.266,234	21,684,871	23,202,812	24,827,008
road operating Experience.	.4,000,200	10,240,400	20,200,204	21,004,071	20,202,012	27/02/1000
Net Cash from Operations	9.778.394	7,341,840	7,113,825	5,720,801	5,367,688	4,868,454



SECTION 11 :: Projected Revenue and Expenditure: 2023 - 2028 (Page 2 of 2)

Description	2023 Projected	2024 Projected	2025 Projected	2026 Projected	2027 Projected	2028 Projected
Capital Revenue	- July 1					
Bus Grants	1,245,714	3,130,170	8,379,000	10,051,889	4,473,063	6,469,216
Rideshare Van Grants		1.532.213	580,466	82,770	738,724	331.833
Other Capital Grants	16,168	7,810,000	-	-	-	
Transfer from Bus Reserve	(445,786)	7,405,043	4,630,500	2,512,972	6,709,595	4,552,752
Transfer from Van Reserve	-	825,038	312,559	44,569	397,774	178,679
Trans, from Support Vehicle Reserve	-	771,750	181,913			140,391
Trans, from Other Capital Reserve	1,064,660	7,194,000	400,000	400,000	400,000	380,000
Trans. from Land Acquisition Reserve		3,000,000	-	-		-
Total Capital Revenue:	1.261.882	12,472,383	8.959,466	10.134.660	5.211.787	6.801.049
Capital Expenditure						
Buses	799,929	10,535,213	13,009,500	12,564,862	11,182,658	11,021,968
Rideshare Vans		2,357,250	893,025	127,339	1,135,498	510,513
Support Vehicles	77,869	771,750	181,913		-	140,391
Other Capital	1,080,828	15,004,000	400,000	400,000	400,000	380,000
Transfer To Bus Reserve	462,598	252,598	12,272,983	275,713	278,470	1,281,255
Transfer To Van Reserve	26,222	26,222	99,698	44,569	397,774	178,679
Trans. To Support Vehicle Reserve	28,081	326,501	181,913	28,081	28,081	84,229
Transfer To Other Capital Reserve	10,194,000	400,000	400,000	400,000	380,000	80,000
Transfer To Land Acquisition Reserve	-	-		-	8	
Total Capital Expenditure:	1,958,626	28,668,213	14,484,438	13,092,201	12,719,156	13,677,034
Net Cash from Capital	(696,744)	(16,195,830)	(5,524,971)	(2,957,541)	(7,507,369)	(6,875,985)
Total Net Change in Cash	9,081,650	(8,853,990)	1,588,853	2,763,260	(2,139,681)	(2,007,532)
Ending Reserves						
Bus	12,100,886	4,948,441	12.590.924	10.353.665	3.922.540	651,043
Van	1,011,676	212,861	-	-	-	-
Support Vehicle	445,249	-	-	28,081	56,162	-
Other Capital	20,924,073	14.130.073	14,130,073	14.130.073	14.110.073	13.810,073
Land Acquisition	3.000.000	14,100,010	14,100,010	14,100,070	14,110,015	10,010,013
Fuel	800.000	1,000,000	1,200,000	1,250,000	1,300,000	1,350,000
Emergency Operating	2,399,988	2,499,988	2,599,988	2,699,988	2,799,988	2,899,988
General Cash	21,254,219					
		30,254,738	24,113,969	28,936,408	33,069,771	42,391,057
Total Ending Reserves:	61,936,091	53,046,101	54,634,955	57,398,214	55,258,534	61,102,161



APPENDIX A

ZERO EMISSION FLEET TRANSITION PLAN



Zero Emission Fleet Transition Plan



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1. Executive Summary

In an effort to decrease reliance on fossil fuels and reduce its carbon emissions, Island Transit is considering transitioning its fixed route fleet to zero emission technology. To achieve this goal the agency plans to replace its existing fossil fueled vehicles (19 transit-style buses and 13 cutaways are used for fixed-route service) with a mix of hydrogen fuel cell electric buses (FCEBs) and battery-electric buses (BEBs). In a parallel effort, the agency is also planning to replace the remainder of its fleet of 114 sedans, vans, and cutaways – used for paratransit, ridesharing, and other demand-response service – with battery-electric vehicles.

As one of the primary motivations behind Island Transit's fleet conversion is emissions reduction, the agency explored the transition's emissions impact. The emissions reduction potential for fuel cell vehicles depends heavily on the electricity production technology. With current generation technology, use of FCEBs with "green" hydrogen (an energy-intensive production method) will only decrease emissions by 22%. However, if state goals for carbon-neutrality are met, emissions reductions will rise to 99%, yielding a fleetwide emissions reduction of 97%.

Island Transit also analyzed the transition's impact on total cost of vehicle and infrastructure ownership. In general, any transition to zero-emissions vehicles requires additional upfront capital spending, as the vehicles are more expensive and require specialized charging or fueling infrastructure. In most cases, recurring costs (operations and maintenance) remain constant or decrease. Although the newly installed infrastructure must be maintained – for a hydrogen station, at significant expense – lower maintenance and charging costs outweigh this additional spending. Over a 12-year vehicle lifecycle, the total cost of ownership is expected to increase by 7%.

Given the results and other key qualitative concerns such as safety, technological maturity, resource availability, construction feasibility, operational logistics, and workforce readiness presented in the Technology Assessment Report, Island Transit prefers to adopt a mixed fleet, with FCEBs on Whidbey Island and BEBs on Camano Island. With this strategy, the agency will have to commission a hydrogen fueling station at the Whidbey Depot in 2026 and begin replacing the fleet with FCEBs as quickly as funding limitations allow. Island Transit will construct charging infrastructure at the Camano depot and begin purchasing BEBs for that island by 2028. According to this plan, the transition will conclude by 2035. However, as the zero-emissions bus market is rapidly evolving, the agency is encouraged to stay up to date on the latest developments and revise its fleet transition plans accordingly.

2. Introduction

Island Transit provides fare-free transit and paratransit service on Whidbey and Camano Islands in northwestern Washington State. The agency has committed to reduce its emissions and its fossil fuel dependence while continuing to offer its riders sustainable and reliable transportation. The agency started its journey to a carbon-free future by adding hybrid-electric buses and propane cutaways to its fleet. In addition, Island Transit ordered five, all-electric sedans to test the vehicle's feasibility to support the agency's on-demand services. To continue this transition and make an even larger impact, Island Transit commissioned a study to evaluate the feasibility of battery electric and fuel cell electric buses for its fixed route operations. The study aimed to develop a fleet transition strategy as part of Island Transit's commitment to FTA's "Sustainable Transit for a Healthy Planet Challenge."

The Federal Transit Administration (FTA) also requires that all agencies seeking federal funding for "Zero-Emissions" bus projects under the grants for Buses and Bus Facilities Competitive Program (49 U.S.C. § 5339(b)) and the Low or No Emission Program (49 U.S.C. § 5339(c)) complete a fleet transition plan. Specifically, the FTA requires that each transition plan address the following:

- + Demonstrate a long-term fleet management plan with a strategy for how the applicant intends to use the current request for resources and future acquisitions.
- + Address the availability of current and future resources to meet costs for the transition and implementation.
- + Consider policy and legislation impacting relevant technologies.
- + Include an evaluation of existing and future facilities and their relationship to the technology transition.
- + Describe the partnership of the applicant with the utility or alternative fuel provider.
- + Examine the impact of the transition on the applicant's current workforce by identifying skill gaps, training needs, and retraining needs of the applicant's existing workers to operate and maintain zero-emissions vehicles and related infrastructure and avoid displacement of the existing workforce.

As part of this study, Island Transit's operation was analyzed in detail to determine the right zero emissions technology for the agency's unique operating environment. Based on the analysis, a fleet transition plan was developed to serve as a roadmap for Island Transit. The transition plan also addresses details on building electrical capacity, building spatial assessment, emissions impacts, resiliency, and financial implications.

2a.Existing Conditions

Island Transit is a fare-free transit agency in Island County, Washington providing fixed route services to Whidbey Island and Camano Island. The agency currently owns and operates a fleet of 146 vehicles for both revenue and non-revenue use; these vehicles are powered by gasoline, diesel, propane, or hybrid propulsion systems. 114 of these vehicles are used for demandresponse applications, including paratransit and rideshare service. The agency plans to introduce

its first five electric vehicles in 2023: Tesla Model 3 vehicles are on order for future vanpool/rideshare usage and will be charged and stored at the Whidbey Island facility.

The agency's fixed-route operations fleet primarily consists of 19 transit buses. Cutaway shuttle vehicles are also used for the fixed route services, though the vehicles are often diverted to serve paratransit customers as necessary. Table 1 below shows Island Transit's bus and cutaway fleet. Of these vehicles, approximately 32 are used for transit service (including spares) at any one time, with the remainder operating paratransit service.

Table 1 Current Vehicle Roster

Make	Model	Year	Туре	Quantity	Fleet Numbers	Fuel Type
Gillig	Phantom 35	2003	Bus	1	118	Diesel
Gillig	Phantom 40	2007	Bus	4	119-20, 122-3	Diesel
Gillig	Low Floor 40	2009	Bus	2	124-5	Diesel
Gillig	Low Floor 40	2011	Bus	4	126-9	Diesel
Gillig	Low Floor 29	2019	Bus	2	130-1	Diesel
Gillig	Low Floor 35	2020	Bus	3	132-4	Hybrid
Gillig	Low Floor 29	2021	Bus	2	135-6	Diesel
Gillig	Low Floor 35	2022	Bus	1	137	Diesel
Chevrolet	Kodiak Goshen	2009	Cutaway	2	250, 259	Diesel
Ford	E450 Glavel	2019	Cutaway	5	265-9	Propane
International	-	2012	Cutaway	1	411	Diesel
Freightliner	Legacy SC2	2018	Cutaway	20	413-32	Diesel
Chevrolet	C3500 Goshen	2012	Cutaway	3	505, 512, 514	Gasoline
Chevrolet	C3500 Goshen	2018	Cutaway	5	515-9	Gasoline
Ford	E450 Eldorado	2019	Cutaway	10	520-9	Propane

Island Transit operates 16 fixed routes: 11 on Whidbey Island and five on Camano Island. No routes directly connect the two islands. The agency currently operates six days a week, with plans to add Sunday service, and expanded evening service, in the near future. Except as noted otherwise, the remainder of this study considers seven-day service with the expanded evening service. The services currently operated are as follows:

[Whidbey] Route 1

- Roundtrip service between Oak Harbor and Clinton Ferry.
- + Operates approximately every 30-60 minutes Mondays to Fridays.
- Operates approximately every 60-90 minutes on Saturdays.

[Whidbey] Route 2

- Services Whidbey Island, connecting Harbor Station, Oak Harbor High School, Ault Field Road, and Senior Center/Pool.
- Operates typically every hour Mondays to Fridays.

Operates approximately every one-two hours on Saturdays.

[Whidbey] Route 3

- Services East Oak Harbor on Whidbey Island.
- + Operates five round trips Mondays to Fridays.

[Whidbey] Route 411W

- + Roundtrip service between Oak Harbor and March's Point.
- + Operates approximately every hour Mondays to Fridays.
- Operates approximately every two hours on Saturdays.
- + Connecting service to Skagit Transit at March's Point.

[Whidbey] Route 6

- Roundtrip service between Oak Harbor and Coupeville Ferry.
- + Operates Mondays to Fridays, with headways between 30 minutes and two hours.

[Whidbey] Route 9

- Services West Oak Harbor on Whidbey Island.
- Operates approximately every hour Mondays to Fridays.

[Whidbey] Route 10

- + Services Central Oak Harbor on Whidbey Island.
- + Operates approximately every 15-30 minutes Mondays to Fridays.
- Operates approximately every 15-60 minutes on Saturdays.

[Whidbey] Route 58

- Service between Clinton Ferry and Scatchet Head.
- Operates two roundtrips for AM service Mondays to Fridays.
- + Operates two roundtrips for PM service Mondays to Fridays.

[Whidbey] Route 60

- + Roundtrip service between Bayview and Clinton Ferry.
- Operates approximately every 30-60 minutes Mondays to Fridays.
- + Operates approximately every 60-90 minutes on Saturdays.

[Whidbey] Clinton Commuter

- Roundtrip service connecting Clinton Ferry to Clinton P&R and Humphrey Rd. Park and Ride.
- Operates approximately every 30 minutes Monday to Friday afternoons.

[Whidbey] NASWI Commuter

- + Roundtrip service connecting Harbor Station to Naval Air Station on Whidbey Island.
- + Operates two roundtrips for AM service Mondays to Fridays.
- Operates two roundtrips for PM service Mondays to Fridays.
- Service provided to NASWI personnel only.

[Camano] Route 1

- Services West Camano.
- Operates approximately every 30-75 minutes Mondays to Fridays.
- Operates approximately every hour on Saturdays.

[Camano] Route 2

- + Services East Camano.
- + Operates approximately every 30-75 minutes Mondays to Fridays.
- + Operates approximately every hour on Saturdays.

[Camano] Route 3

- Roundtrip service connecting Camano and Stanwood.
- + Operates approximately every 30-60 minutes Mondays to Fridays.
- + Operates approximately every hour on Saturdays.

[Camano] Route 411C

- Roundtrip service connecting Camano and Mount Vernon.
- Operates seven round trips Mondays to Fridays.
- Operates three round trips on Saturdays.
- + Connecting service to Skagit Transit at Skagit Station.

[Camano] Route 412

- + Roundtrip service connecting Camano and Everett Station.
- Operates five round trips Mondays to Fridays.
- + Connecting service to Sound Transit at Everett Station

3. Technology Options

The agency considered both battery-electric and hydrogen fuel cell vehicles for its fixed routes. Island Transit's long routes, comparatively unreliable electrical supply, space-constrained terminals, and remote asset deployment challenges indicated that neither technology was immediately obvious or correct solution. Therefore, a feasibility study considered all vehicle types outlined below for its fixed route operation. The fixed route operation is served by a mix of transit buses and cutaway shuttles while the paratransit service is served by the cutaway shuttles. Island Transit plans to phase out the cutaway shuttles in the future due to the changes in the ridership demand and a limited options for zero emission alternatives. Some fixed routes that are served with cutaway shuttles today will be served by 35' or 40' zero emission transit buses. The duty of the cutaway shuttles for the paratransit service will be fulfilled by vans in the future. Since electric vehicles are the only viable zero emission vehicles in the market for vans, the portion of the cutaway shuttles that are currently used for paratransit operation will be replaced with electric vans in the future.

3a.Battery Electric

Today, a wide range of BEBs are available on the market. Compared to conventional diesel buses, these vehicles eliminate the diesel propulsion engine, most of the transmission, and other associated components. The buses are equipped with large batteries, typically mounted under the floor or on the roof, that supply power to the traction motors. One of the primary differentiating factors between models is the available battery capacity, ranging from 160 kWh to 738 kWh on common bus models available today. This wide capacity range primarily presents a cost and maintainability tradeoff. Although more capacious batteries allow the bus to travel farther, they cost significantly more to purchase and place additional weight on the bus. This added weight increases the strain on axles, suspension, and other components. To ensure maximum competition during procurement and minimize the agency's exposure to risk associated with industry-leading technology, this study assumed a battery capacity of 492 kWh, which is representative of the products offered by a range of established vendors. The market is changing quickly, with a battery capacity increase of approximately three percent per year; vehicles procured later will likely have larger battery capacities than the ones available today.

A consideration for both current and future batteries is that the advertised "nameplate" capacity is not entirely usable for daily operations. To ensure that buses can be operated daily throughout their useful life, two types of safety margins were subtracted from the nominal battery capacities. First, due to aging, the battery was assumed to have only 80% available capacity. As batteries degrade over time, their capacity decreases. Typically, if the capacity declines by more than 20% the battery is replaced, either under a battery warranty or at the transit agency's expense. Second, it was assumed the bus needs to return to the garage before its level of charge falls below 20%. This is both a manufacturer's recommendation – batteries have a longer life if they are not discharged to zero percent – and an operational safety buffer to prevent dead buses from becoming stranded on the road. These two margins yield a usable battery capacity of 64% of the nameplate capacity.

3b. Hydrogen Fuel Cell

FCEBs are less common in the US transit market; only two major vendors offer them today. In fact, the market is so small that no 35' FCEBs are currently available. Although this is expected to change in coming years as the technology matures and more vendors enter the market, in the near-term Island Transit may be compelled to adopt 40' vehicles for its fuel cell bus procurements.

FCEBs are nearly identical to BEBs: an onboard battery supplies their electric traction motors with power. However, unlike BEBs where battery size determines the range, FCEBs are equipped with a hydrogen storage tank. The hydrogen passes through a fuel cell to generate electricity used to replenish the battery (which can be smaller than on a BEB as a result). Although this additional step decreases drivetrain efficiency significantly, this is mitigated by the additional range that is made available. Hydrogen storage tanks are typically made as large as reasonably practical because bus components, such as the fuel cell itself, contribute to most of the cost and weight of a fuel-cell bus independent of the required vehicle range. A representative bus on the market

today can accommodate 37.5 kilograms (kg) of hydrogen. Like BEBs, this capacity is a theoretical maximum and must be reduced to account for real-world conditions. However, unlike batteries, hydrogen tanks do not lose capacity over time and do not degrade when they are fully drained. Therefore, a capacity reduction of approximately five percent is appropriate for daily operations, yielding a usable hydrogen capacity of 35 kg.

4. Operations Planning

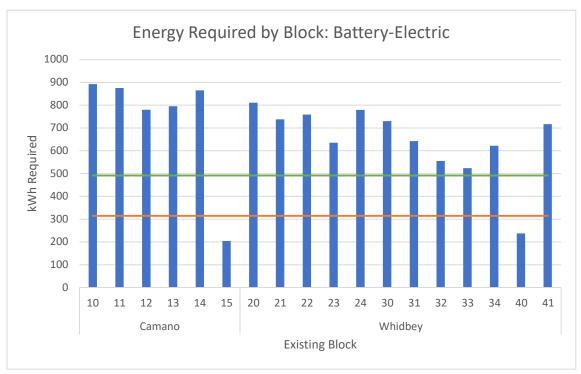
Island Transit's current operating model for fixed-route services is similar to that of most transit agencies. Buses typically leave the depot in the morning, operate for as long as they are needed, and then return to the depot in the evening. Although Island Transit's schedulers must account for operator-related restrictions like lunch breaks and maximum shift lengths, the vehicles are assumed to operate for as long as they are needed. This assumption will be invalidated for zero-emissions vehicles; both hydrogen and batteries are low-density means of energy storage that do not provide the same vehicle range as gasoline or diesel fuel. In addition, seasonal factors become much more significant for zero-emissions vehicles, particularly for BEBs. Even when diesel heaters are installed, as was assumed in the feasibility study, icy road conditions and cold temperatures degrade the performance of the vehicles. Although practices to extend range like pre-conditioning the bus before leaving the depot are recommended, winter conditions will present challenges to zero-emissions vehicle operation. Island Transit's operating model will need to account for these limitations as service must operate year-round.

4a.Operations Simulation

A simulation was conducted to predict how zero-emissions vehicles would perform on Island Transit's routes. Simulation was necessary because the available range estimates – typically provided by vehicle manufacturers – are maximum values that ignore the effects of gradients, road congestion, driver performance, severe weather, and other agency-specific factors. Island Transit's network was analyzed on a route-by-route basis through the creation of "drive cycles" for several routes representing the agency's typical modes of operation, ranging from slower-speed urban routes to higher-speed routes through more rural areas. For each representative route, the full geography (horizontal and vertical alignment), transit infrastructure (location of key stops and transit hubs), and road conditions (vehicle congestion, traffic lights, stop signs, crosswalks, etc.) were modeled. The performance of both battery-electric and fuel cell vehicles was simulated in worst-case weather conditions to create a drive cycle. These Island Transit-specific drive cycles were used to calculate hydrogen or battery energy consumption per mile. This analysis provided information regarding the total hydrogen or battery energy consumed by a vehicle on each route.

Island Transit currently operates its vehicles across both fixed-route and demand-response services; a given vehicle can switch between fixed-route and demand-response operation several times a day. In the future the agency plans to eliminate this type of operation; vehicles will spend the full day on either fixed-route or demand-response services, but not both. As a result, this study used vehicle blocks exclusively for fixed-route operations, provided by Island Transit, and assumed that these would be operated whether zero-emissions vehicles were used or not. Figure

1 below presents the hydrogen / battery energy consumption for each of these current blocks, with the green line denoting the theoretical maximum capacity of the vehicle and the orange line denoting the practical capacity, accounting for operating margin as discussed in Section 3.



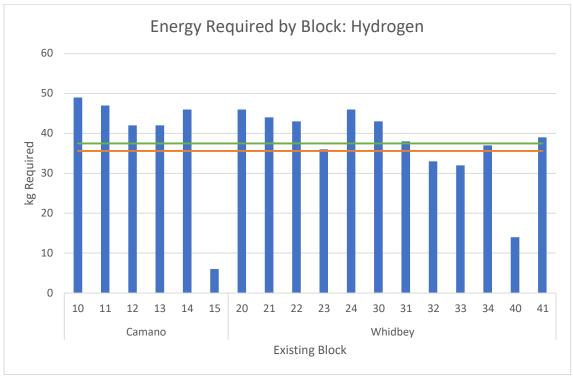


Figure 1 Energy Required for Operation of Existing Blocks

As shown in Figure 1, zero-emissions vehicles do not have sufficient range for most blocks currently operated by Island Transit. To address these limitations, Island Transit will have to operate the existing blocks to the extent possible and replace buses that have exhausted their range with fresh vehicles from the depot. Swapping buses in and out of service throughout the day allows the length of each block to be balanced with the available range of each vehicle. In addition, this "depot swapping" option allows service operation without reliance on "field" infrastructure. However, the primary downside of this option is the additional deadheading required to cycle buses in and out of the depot. Particularly in cases where the depot is far away from the route terminal – as on Whidbey Island – additional energy use and driver time would be required. Additionally, despite extra deadheading time all passenger trips would still require service; this will necessitate an increase in fleet size. The use of FCEBs will partially mitigate this concern, as they have longer range than BEBs, but some degree of deadheading will still be required for all zero-emissions vehicles. Another option for BEBs is to install on-route chargers at the hubs and use layover times to extend vehicle range. However, this option requires reliance on "field" infrastructure to be installed and maintained, often in coordination with external stakeholders.

The block schedules shown in Figure 1 are for Island Transit's current operation. However, as mentioned above, the agency is expanding its service starting in May 2023. Although the future schedules have not yet been developed, the impact on the blocks and resulting total service fleet was estimated for the above-described operating scenarios based on the scope of the proposed expansion.

For efficient operations, the schedule (and perhaps even the route structure) would require modifications. For example, buses recharging or refueling while drivers are taking a lunch break or starting/ending their shifts ensures that drivers are not waiting unproductively while their vehicles' range is replenished. Interlining is also important to minimize unproductive deadheading time. On Whidbey Island, the hubs are located far away from the depot, requiring significant deadheading for midday recharging or refueling. However, Route 6's southern terminal at the Coupeville Ferry Terminal is less than a ten-minute drive from the depot. Therefore, buses on Route 6 can be swapped out for fresh vehicles with little wasted time or mileage. Introducing interlining between Route 6 and the other Oak Harbor routes will allow those routes to be operated efficiently as well; buses with nearly exhausted range would operate a trip on Route 6, be replaced with a fresh bus at the depot, and return to Oak Harbor to continue service on another route, while a separate bus would operate the next Route 6 trip. Although such tweaks increase operating complexity, they help minimize wasted mileage and driver time.

Given the operational limitations outlined above, and the impracticalities associated with installation of on-route charging, Island Transit has selected a mixed-fleet operating model. The agency will operate FCEBs on Whidbey Island, fueling them at the depot in Coupeville, and operate BEBs on Camano Island, charging them at the smaller facility there.

4b. Infrastructure for Hydrogen Operations

Hydrogen storage and fueling infrastructure is required for FCEB fleet operation. On-site hydrogen production is also an option for consideration. However, the daily usage of hydrogen must be significant in order to achieve the economies of scale required to make on-site production economical and feasible. Therefore, hydrogen delivery was assumed in this study.

For a hydrogen fueling station, the main variable in configuring its size is the number of vehicles that must be refueled per day. The size of the liquid hydrogen storage tank, the rating for the vaporizer, the number of hydrogen dispensers and fuel delivery frequency is determined based on the daily consumption. On Whidbey Island, the storage tank is estimated to be 12,000 gallons with two dispensers. The hydrogen deliveries are estimated to be on a weekly basis.

4c. Infrastructure for Electric Operations

Charging infrastructure is required for operating battery electric vehicles. There are several complexities to consider when deciding on the charging infrastructure.

The most important parameter is the expected peak charging rate for a given location, as this determines the size of the electrical hardware and affects utility billing. Vehicles typically sit for extended periods overnight at depot so there is room for fine-tuning to decrease agency costs. Charge management systems are typically deployed for this optimization. Without any charge management, vehicles would likely be plugged in to charge at full power (usually 150 kW) as soon as they arrive at the depot. This would potentially expose them to higher-priced electricity, before the overnight period with low power costs begins, and if several vehicles arrived near the same time the peak power rate would increase significantly. On the other hand, with optimal charge management, vehicles would only be charged during the overnight low-cost period, and charging would occur gradually across all vehicles to minimize peak power load. If possible, the charge management system would be programmed with the vehicle schedule for the following day, ensuring that vehicles reach full charge when they are needed for entry into service. Figure 2 below presents an example charging schedule for BEB operation of the current schedule on Camano Island assuming that charge management is fully utilized at the depots. Without charge management systems the peak demand – and therefore the size of the required utility feed – would be significantly higher than shown here.

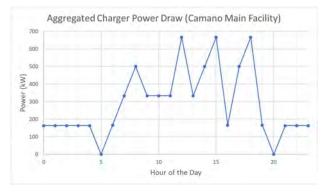


Figure 2 Optimized Charging Schedules

5. Facility Evaluations

Either battery-electric or fuel-cell vehicles represent a substantial transition for Island Transit's typical mode of operations. Accordingly, the agency's facilities must be able to accommodate the new vehicles and required supporting infrastructure. This section details the spatial and electrical ability of the depots to accommodate electrical charging or hydrogen storage and fueling for fixed-route vehicles.

5a. Spatial Capacity

Island Transit has two main facilities. The Whidbey Island facility, located at 19758 Route 20 in Coupeville, is comprised of two buildings for Administration and Maintenance. Agency vehicles can be stored outside, as shown in Figure 3, but vanpools are typically parked overnight at operators' homes. A PSE utility survey was conducted to determine the infrastructure conditions and needs to support future electric vehicle charging, including that of the five Tesla rideshare vehicles currently on order. The initial evaluation indicated that the facility has the capacity to support up to five DCFCs, which the agency intends to install for the vanpool vehicles. Even after these chargers are installed, there is ample space on the facility grounds to install a hydrogen fueling station for fixed-route vehicles. Because of the different vehicle classes and power requirements, these assets would likely be separate from the planned charging stations for a large-scale electric demand-response fleet, which would likely be placed on existing curbs in the southeastern parking lot.



Figure 3 Whidbey Island Facility Maintenance Building and Outdoor Vehicle Storage

Additionally, the maintenance building will need substantial upgrades. The upgrades could include installation of hydrogen sensors, upgrades to light fixtures, new electrical wiring, and upgrades to the HVAC system among other things. The HVAC system will make up a large portion of the total building modification costs. Island Transit is already considering upgrades to the HVAC system in the maintenance building (shown in Figure 4) since the current geothermal heating

system is proving inadequate for colder days. The agency could consider the transition to hydrogen fuel cell vehicles as the opportunity to make the necessary upgrades and share the upgrade cost between both projects.



Figure 4 Whidbey Island Facility Maintenance Building Interior

The Camano Island facility, located at 198 N Can Ku Rd. in Camano and shown in Figure 5 below, has limited space for potential fueling or charging stations. All fueling is currently done off-site at a nearby Island County facility. Electric vehicle chargers could be installed in several locations on the property, including the north side of the employee parking lot, the southern edge of the vehicle parking area, or a new mid-lot curb.



Figure 5 Camano Island Facility

Because of land ownership issues, route scheduling, use of FCEBs on Whidbey Island, and expected vehicle range, Island Transit's transit hubs, such as Oak Harbor, Clinton Ferry, and Terry's Corner, were not considered for on-route charging.

5b. Electrical, Infrastructure, and Utility Capacity

Island Transit's two facilities have different utility providers. Puget Sound Energy (PSE) is the utility provider on Whidbey Island, including the depot in Coupeville. Snohomish County Public Utility District (PUD) is the utility provider for the Camano Island facility. As part of the development of this transition plan, Island Transit partnered with both utilities to communicate its projected future utility requirements at each of the locations.

The storage and maintenance facility in Coupeville has a 480V 3-phase service which is stepped down using a 300kVA transformer, shown in Figure 6 below. The power is distributed within the facility using 480V panels. The current transformer and distribution system is not sufficient for the charging infrastructure's power requirements for demand-response vehicles; even if comparatively low-power 7.2 kW Level 2 chargers are installed, and assuming that 50% of demand-response vehicles charge at the driver's home or another location, roughly 400 kW of power will be required to charge the remainder of Whidbey's demand-response fleet each night.



Figure 6 Whidbey Island Coupeville Facility Distribution Transformer

The peak energy requirement for hydrogen fueling infrastructure is also nontrivial, as the cryogenic pumps usually make up a large portion of the electrical load. Pumps large enough for the Whidbey depot's operational needs would likely range from 350 kW to 700 kW (depending on the manufacturer). Therefore, the current electrical system and utility service will either need

upgrades or a new dedicated transformer and outdoor distribution system for any operating scenario.

The depot on Camano Island has a single phase 120/240 V service which is provided from a utility pole located at the north end of the facility on Can Ku Road. The single-phase pole mount service transformer is shown in Figure 7 below.



Figure 7 Service Transformer at the Camano Island Storage Facility

This service is not adequate for or compatible with the power requirements of DCFCs. The service may be adequate for one or two low-power level 2 chargers for demand-response vehicles, but this alone would not meet Island Transit's zero-emissions goals. Therefore, the facility will need a new three phase 480V service, including new metering, to serve both fixed-route and demand-response vehicles. As with PSE on Whidbey Island, extensive coordination with PUD will be required to realize this upgrade.

5c. Risks

Every new vehicle procurement brings about a certain degree of operational risk to the agency. Even when the existing fleet is replaced 'in-kind' with new diesel, gasoline, or propane vehicles, there are new technologies to contend with, potential build quality issues that must be uncovered, and maintenance best practices that can only be learned through experience with a particular bus. Converting to zero emissions vehicles makes some failure modes impossible – for example by eliminating the fossil fuel propulsion engine – but introduces others. For example,

the ability to provide service becomes dependent on the continuous supply of electricity to the charging location. To convert to zero emissions vehicles, it is important to understand these risks and the best ways to mitigate them.

The vehicle and wayside technology required for zero emissions bus operation is in its early stages; few agencies have operated their fleets or charging/fueling assets through a complete lifecycle of procurement, operation, maintenance, and eventual replacement. This exposes zero-emissions bus purchasers to several areas of uncertainty:

- + Technological robustness: By their nature as newer technology, many zero emissions vehicles (and their associated charging / fueling infrastructure) have not had the chance to stand the test of time. Although many industry vendors have extensive experience with fossil fuel buses, and new vehicles are required to undergo Altoona testing, some of the new designs will inevitably have reliability shortcomings.
- + Battery performance: The battery duty cycle required for transit buses intensive, cyclical use in all weather conditions is demanding, and its long-term implications on battery performance are still being studied. Though manufacturers have recommended general principles like battery conditioning, diesel heater installation, and preferring lower power charging to short bursts of high power, best practices in bus charging and battery maintenance will become clearer in coming years. This concern is most critical for BEBs, though it also affects the batteries on FCEBs.
- + Supply availability: Compared with other types of vehicles, zero emissions buses (particularly BEBs) are especially vulnerable to supply disruptions due to the small number of battery vendors and worldwide competition for raw materials such as lithium. As society increasingly shifts to electricity for an ever-broader range of needs, from heating to transportation, both the demand and the supply will need to expand and adapt. FCEBs have several additional concerns as well: hydrogen availability is a constraint due to the lack of companies producing it, and the market for fuel cells, storage tanks, and hydrogen pumps is similarly limited.
- + Lack of industry standards: Although the market has begun moving toward standardization in recent years for example through the adoption of a uniform bus charging interface there are many areas (e.g. battery and depot fire safety) in which best practices have not yet been developed. This may mean that infrastructure installed early may need to be upgraded later to remain compliant.
- + Reliance on wayside infrastructure: Unlike diesel buses, which can refuel at any publicly accessible fueling station, BEBs require DCFCs for overnight charging and specialized pantograph chargers for midday fast charging. Particularly early on, when there is not a widespread network of public fast chargers, this may pose an operating constraint in case of charger failure. Similarly, FCEBs require reliable access to hydrogen fueling stations for daily operations. There are not currently any hydrogen fueling stations available in Washington State, though two are under construction in Chehalis and East Wenatchee. This small market can pose a constraint on the use of FCEBs if Island Transit's fueling station requires maintenance or is out of commission for any other reason.

+ Fire and explosion risk: As discussed below, both BEBs and FCEBs have some fire and explosion risks (as, of course, fossil fuel vehicles do as well). These risks are low-probability but must still be understood and mitigated.

The batteries on BEBs and FCEBs require special consideration from a fire risk perspective. A bus battery is a dense assembly of chemical energy. If this large supply of energy begins reacting outside of its intended circuitry, for example due to faulty wiring or defective or damaged components, the battery can start rapidly expelling heat and flammable gas, causing a "thermal runaway" fire. Given their abundant fuel supply, battery fires are notoriously difficult to put out and can even reignite after they are extinguished. Furthermore, without prompt fire mitigation the dispersed heat and gas will likely spread to whatever is located near the bus. If this is another zero-emissions bus then a chain reaction can occur, with the heat emanating from one bus overheating (and likely igniting) the batteries of another bus. This can endanger all the buses in the overnight storage area. Mitigations are recommended for these risks. Increasingly sophisticated battery management systems are being developed on the vehicles themselves, ensuring that warning signs of battery fires – such as high temperature, swelling, and impact and vibration damage – are quickly caught and addressed. Though research is ongoing, most battery producers believe that with proper manufacturing quality assurance and operational monitoring the risk of a battery fire can be minimized.

The infrastructure best practices for preventing fire spread with battery-electric vehicles are still being developed. There are partially relevant standards for the storage of high-capacity batteries indoors for backup power systems, such as UL9540, NFPA 70, and NFPA 230, and the primary components of any fire mitigation strategy are well understood. These include detectors for immediate discovery of a fire, sprinklers to extinguish it as much as possible, and barriers to prevent it from spreading to other buses or the building structure. In terms of staffing, it is recommended that staff be located nearby to respond in case of a battery fire and move unaffected buses out of harm's way.

The use of hydrogen introduces additional challenges. Hydrogen has a greater risk of fire or explosion than gases like methane or natural gas due to its wider flammability limits, lower minimum ignition energy, and higher typical storage pressure. Although fuel cell vehicle designs take these risks into account, depots and storage areas require special design considerations. For example, NFPA and OSHA regulations limit how close a hydrogen storage tank can be placed to property lines, buildings, or other structures. Facilities serving fuel-cell vehicles must also be designed accordingly. For instance, blow-out windows are required to dissipate the force of any indoor explosion before it affects the structural integrity of the building. Hydrogen leakage is another potential issue; gaseous hydrogen is a small molecule so small leaks are common. Hydrogen is colorless, odorless, and tasteless, so leaks are hard to detect. It is lighter than air and highly flammable, so an indoor leak is very dangerous because the hydrogen will accumulate under the ceiling and pose an explosion risk. Hydrogen fuel cell vehicle maintenance and storage facilities must be designed (or retrofitted) with this in mind: unventilated peaks in the roof (such as skylights) are not permitted, and spark-producing equipment (such as light fixtures) cannot be located within a certain distance of a flat ceiling. Unlike battery-electric vehicles, where the

infrastructure standards are still being developed, the requirements for hydrogen fuel cell vehicle fueling stations and maintenance depots are well established; however, they typically impose a significant financial burden on agencies with existing, constrained facilities.

All these risks are likely to be resolved, or at least better understood and mitigated, as zero-emissions bus technology develops. Given Island Transit's enthusiasm for zero-emissions vehicles and small fleet size, the agency should consider several strategies to maximize operational robustness:

- As part of vehicle procurements, require the zero-emissions bus vendor to have a technician on site or nearby in case of problems. This is most economical when the technician is shared with several nearby agencies.
- Reach a "mutual aid" agreement with a nearby transit agency that would let Island Transit borrow spare buses in case of difficulties with its fleet.
- Retain a small fossil fuel reserve fleet to ensure adequate backup for zero-emissions vehicles if any incidents or weather conditions require it.
- Develop contingency plans in case any charging or fueling location fails and operation must continue using another location(s).

6. Lifecycle Cost

To calculate the cost of this transition, a life cycle cost (LCC) model was constructed, using the net present value (NPV) method to compare future costs on an equivalent basis. This allows all costs incurred throughout the fleet transition to be considered in terms of today's dollars. The costs are based on the weekday service levels analyzed above and scaled to account for weekends and holidays. They include initial capital as well as operations and maintenance costs of the vehicles and supporting infrastructure for battery-electric and hydrogen fuel-cell fixed-route vehicles. These costs can then be compared to the costs of replacing the existing fossil fuel-based operation with another round of diesel vehicles, which were calculated similarly. Because of uncertainties with timing and scope of demand-response vehicle electrification, no synergies with that project were assumed. Table 2 below outlines the LCC model components, organized by basic cost elements, for fossil fuel, battery-electric, and fuel cell vehicles.

Table 2 Primary Cost Categories by Vehicle Type

Category	Fossil fuel (baseline)	Battery-Electric	Hydrogen fuel cell
	Vehicle purchase	Vehicle purchase	Vehicle purchase
	Mid-life overhaul	Mid-life overhaul	Mid-life overhaul
		Battery replacement/warranty	Battery replacement/warranty
Capital		Charging infrastructure	Fueling infrastructure
Capitai		Electrical infrastructure upgrades	Facility upgrades and code compliance work
		Utility feed upgrades	Hydrogen storage infrastructure
	Fossil fuel	Electricity	Hydrogen fuel
			Hydrogen trucking
Operations	Operator's cost	Operator's cost	Operator's cost
		Demand charges for electricity	
		Diesel fuel for auxiliary heaters	
Maintenance	Vehicle maintenance	Vehicle maintenance	Vehicle maintenance
iviaintenance		Charger maintenance	Hydrogen storage and fueling system maintenance
Financial incentives	Grants	Grants	Grants

Like any complex system, Island Transit has a range of ways it can fund, procure, operate, maintain, and dispose of its assets. In coordination with agency stakeholders, the following assumptions were developed to ensure that the cost model reflected real-world practices:

Capital Investment

- + The lifespan of a bus is 12 years, in accordance with Island Transit practice.
- + The Camano Island facility is not relocated.
- + The maintenance building at the Whidbey Island facility is upgraded.
- + Backup generators are installed at each vehicle charging location.
- + 12-year battery warranties are purchased with the bus, removing the need for battery replacement at vehicle midlife.

Funding

+ Federal grants cover 80% of the procurement cost for buses (of all types) as well as charging and hydrogen infrastructure.

Costs

- + 3% year-over-year inflation
- + 7% agency discount rate

Table 3 lists the operating and capital costs assumed for this study. These are based on Island Transit's figures and general industry trends and have been escalated to 2022 dollars where necessary.

Table 3 Estimated Costs

Asset	Estimated Cost Per Unit (2022 Dollars)
30' Transit Bus: Diesel	\$531,000
30' Transit Bus: Battery-Electric	\$978,000
30' Transit Bus: Hydrogen Fuel Cell	N/A
35' Transit Bus: Diesel	\$546,000
35' Transit Bus: Battery-Electric	\$1,009,000
35' Transit Bus: Hydrogen Fuel Cell	\$1,150,000
40' Transit Bus: Diesel	\$551,000
40' Transit Bus: Battery-Electric	\$1,050,000
40' Transit Bus: Hydrogen Fuel Cell	\$1,200,000
DC Fast Charger, Depot (Plug-in w/ 3 dispensers)	\$270,000
DC Fast Charger, Pantograph Overhead	\$635,000
Hydrogen Storage Tank, per kg	\$1,000
Hydrogen Vaporizer, per kg per hour	\$4,500
Hydrogen Chiller, per kW	\$6,900
Hydrogen Fuel Pump	\$99,000
HVAC Upgrades for Whidbey Island Building	\$1,450,000
Operator Wages, Benefits, and Overhead, per hour	\$44.08
Bus Maintenance, per mile: Diesel	\$1.30
Bus Maintenance, per mile: Battery-Electric	\$0.96
Bus Maintenance, per mile: Hydrogen Fuel-Cell	\$1.19
Diesel Fuel, per gallon	\$3.00
Hydrogen, per kilogram	\$8.86
Generator Unit Cost per kW	\$600

Because the transition to zero-emissions vehicles will be gradual, LCC calculations necessarily overlap multiple bus procurement periods. This was addressed by setting the start of the analysis period to the year when the last fossil fuel bus is proposed to be retired (2034), with the analysis period stretching for a full bus lifespan. For buses already on property at the beginning of the analysis period, or for buses with remaining life at the end, a residual value was calculated and added or subtracted as appropriate.

The LCC analysis determines the relative cost difference between the baseline (fossil fuel) case and the proposed case. Costs common to both alternatives, such as bus stop maintenance, are

not included as they do not have a net effect on the LCC comparison. Thus, the model indicates the change in the LCC and does not represent the full or true cost of the two scenarios. Table 4 and Figure 8 summarize the NPV for the current and proposed future fleet.

Table 4 Life Cycle Cost Estimates

Category	Fossil Fuel Baseline	Future Fleet	
Vehicle Capital Costs	\$1,985,829	\$4,660,973	
Infrastructure Capital Costs	\$0	\$1,356,074	
Vehicle Maintenance Costs	\$13,661,649	\$11,737,968	
Infrastructure Maintenance Costs	\$0	\$1,157,995	
Operational Costs	\$27,614,182	\$27,418,536	
Total Life Cycle Cost	\$43,261,660	\$46,331,545	

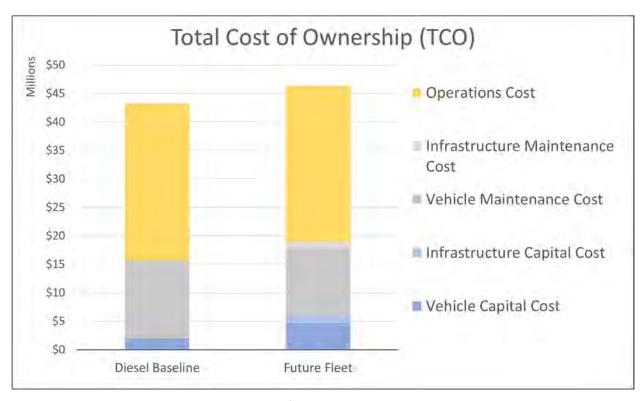


Figure 8 Life Cycle Cost Estimates

Capital costs are substantially higher for the zero-emissions option than for the diesel baseline option, due to both vehicle and infrastructure procurement costs. On a BEB, the primary expensive component is the battery; on a FCEB, the battery is accompanied by a hydrogen fuel cell for additional range extension, which increases the cost further. Consequently, vehicle acquisition cost is expected to increase by nearly 135% compared to the baseline. Infrastructure will contribute to upfront capital spending as well; although Island Transit will generate some economies of scale through the larger fleet on Whidbey Island and through sharing with demand-response vehicles on Camano Island, the cost of the Whidbey Island hydrogen fueling station

(including the storage tank, vaporizers, chillers, pumps, safety upgrades, etc.) will overshadow these savings. These factors combine to yield a total capital cost increase of 203%.

On the other hand, zero-emissions vehicles, particularly BEBs, are expected to reduce recurring costs for both maintenance and daily operations. Maintenance costs will likely decline because of the simplified nature of BEBs' and FCEBs' drivetrains, which reduces brake wear, eliminates several maintenance-intensive components, and enables more advanced vehicle diagnostics. Even though the shift to BEBs and especially FCEBs introduces additional infrastructure that must be maintained, total spending on asset maintenance should decrease. Maintenance costs will decrease by approximately 6%, reflecting the balance between less maintenance-intensive vehicles and highly maintenance-intensive hydrogen infrastructure. Operating costs will decrease by 1%. The resulting total cost of ownership for the mixed fleet is estimated to be 7% more than the diesel fleet.

Each alternative requires initial capital spending to reduce recurring cost and achieve strategic goals over the fleet's lifetime. This finding is common to many transit projects and is representative of the transit industry, with nearly all bus and rail systems requiring capital investments up front to save money in other areas (traffic congestion, air pollution, etc.) and achieve broader societal benefits over the long term. By extension, just as with the transit industry at large, policy and financial commitment will be required from government leaders to achieve the desired benefits. The federal government's contribution to these goals via FTA and Low-No grants is already accounted for, leaving state and local leaders to cover the remaining increase in upfront capital cost.

The zero-emissions bus market is a new and developing space, with rapid advancements in technology. Although this study used the best information available to date to analyze the alternatives and recommend a path forward, it will be important in the coming years for Island Transit to review the assumptions underlying this report to ensure that they have not changed significantly. Major changes in capital costs, fuel costs, labor costs, routes, schedules, or other operating practices may make it prudent for Island Transit to modify vehicle procurement schedules or quantities, tweak operating schedules, or otherwise revise this report's assumed end state.

7. Emissions Impacts

One of the motivations behind Island Transit's transition towards zero-emissions buses is the State of Washington's goals to reduce emissions. While specific targets for public transportation have not been established, the state Clean Fuel Standard's goal to achieve a 20% overall emissions reduction by 2035 was considered as a target by Island Transit.

The anticipated emissions reductions from Island Transit's transition plan were calculated to quantify the plan's contribution toward meeting the state's emissions reduction goals. To provide a complete view of the reduction in emissions offered by the transition plan, the effects were analyzed based on three criteria:

Well-to-tank

+ These are emissions associated with fossil fuel production and delivery.

Tank-to-wheel

+ These are "tailpipe" emissions produced when the fossil fuel is used.

Energy Generation

+ These emissions are associated with production of the electricity/hydrogen needed for vehicle operation. The two utilities that supply power to Island Transit (Puget Sound Energy on Whidbey Island and the Snohomish Public Utility District on Camano Island) each provide information on the emissions associated with their sources of electricity. These data were incorporated into the calculations below, reflecting the total emissions that would result from operation of zero-emissions vehicles if the grid did not change from its current state. However, the Washington State Clean Energy Transformation Act, signed in 2019, requires utilities to provide a fully emissions-neutral electricity mix by 2030. To account for these future grid emissions reduction goals, emissions reductions were also calculated assuming that utilities achieve these goals.

Table 5 below presents the types of emissions that are considered for each case.

Table 5 Types of Emissions

	Diesel	Battery-Electric	Hydrogen Fuel Cell
Well-to-	Fuel	Diesel heater fuel	Fuel production, processing, and delivery for
tank	production,	production,	hydrogen transport truck (East Wenatchee to
	processing,	processing, and	Island Transit)
	and delivery	delivery	
Tank-to-	Use of diesel	Use of diesel fuel	Use of diesel fuel for propulsion for hydrogen
wheel	fuel for	for cabin heating	transport truck (East Wenatchee to Island Transit)
	propulsion		
Energy	N/A	Electricity	Grey Hydrogen: Emissions from hydrogen
Generation		production from	production
		non-renewable	Green Hydrogen: Electricity production from non-
		sources	renewable sources to power hydrogen production

Table 6 and Figure 9 summarize the results of the emissions calculations. These results demonstrate the critical impact that electricity production technology has on emissions reduction, especially given that FCEBs will be used.

Table 6 Emissions Estimates

Scenario	Well-to-	Tank-to-	Energy Gen	eration (kg)	Total (kg)	Reduction	
	Tank (kg)	Wheel (kg)	Current	Future	(Current)	Current	Future
Baseline	2,000,583	3,443,272	-	-	5,443,855	-	-
Future Fleet	55,667	95,811	1,638,500	1,638,500	1,789,978	67%	67%
(Grey H₂)							
Future Fleet	55,667	95,811	2,797,822	-	2,949,301	46%	97%
(Green H ₂)							

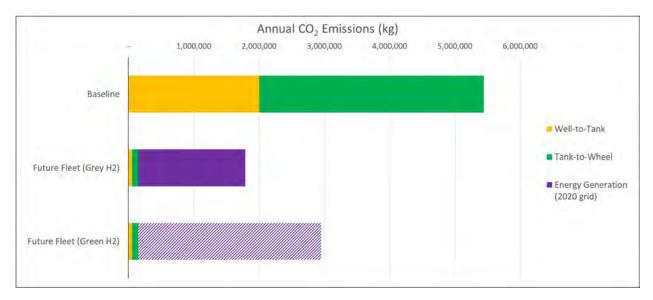


Figure 9 Emissions Estimates

The largest contributor, by far, to the carbon emissions from zero-emissions bus operation is the technology used to generate the electricity and/or hydrogen. For grey hydrogen, this is related to the fossil fuel that is burned during production. Although the large scale of such facilities increases the efficiency of fossil fuel burning compared to the small diesel engines found on buses, there are still inefficiencies related to the steam methane reformation process used to produce grey hydrogen. Hence, fleet operation using grey hydrogen only yields a 67% emissions reduction compared to the diesel baseline. For battery-electric operation and for green hydrogen, this is directly related to the composition of the Washington State grid. For the current grid composition, BEBs are the most climate-friendly technology because they avoid the energy expenditures (and the resulting emissions) associated with producing, transporting, storing, and using hydrogen. Once fully carbon-neutral electricity production is achieved, however, as much as 97% of emitted carbon being eliminated by a transition to the proposed fleet.

8. Asset Selection, Fleet Management, and Transition Timeline

A key decision for Island Transit relates to the procurement timelines for vehicles and supporting infrastructure. Island Transit, like almost all transit agencies, currently acquires buses on a rolling schedule. This helps lower average fleet age, maintain stakeholder competency with procurements and new vehicles, and minimize scheduling risks. However, this also yields a high number of small orders. For any bus procurement – and especially for a newer technology like BEB or FCEBs – there are advantages to larger orders, such as lower cost and more efficient vendor support. Because of this potential for economies of scale, as well as the large number of vehicles past due for replacement, Island Transit should consolidate the procurement timeline as outlined below.

Consolidation of vehicle procurements will also simplify the infrastructure installation timeline. FCEB operations are very capital-intensive because they require hydrogen pumping, storage, and potentially generation equipment at each fueling location. This makes deployment of only one or two FCEB at a given depot uneconomical. On the other hand, once the required infrastructure

is installed, it is most efficient to convert the depot's entire fleet to FCEBs, maximizing the benefit of the installed equipment. Even for BEBs, the required retrofit of the depot for charger installation will be most economical for larger fleet sizes. For small depots, such as on Camano Island, an all-at-once conversion will have the benefit of keeping the facility consolidated; given the small size of that facility, minimizing the number of fuel types used there is beneficial.

To fulfill Island Transit's fixed-route operational requirements, the agency will need peak fleet sizes of 18 buses on Whidbey and eight buses on Camano Island. Given the agency's comparatively small fleet size, the long distance between the two depots, and the lack of any nearby fueling or maintenance facilities for hydrogen or heavy-duty battery-electric vehicles, a vehicle spare ratio of 30% is assumed on each island to ensure operational robustness. Although this exceeds the FTA guideline maximum spare ratio of 20%, that guideline only applies to agencies operating 50 or more revenue vehicles and is not applicable to Island Transit's fixed-route operation. In total, to fully convert its fixed-route operations to zero emission buses, Island Transit should procure 24 for Whidbey Island buses and 10 buses for Camano Island.

For charging stations and especially hydrogen fueling facilities, the agency will need to do significant permitting, grant-seeking, engineering, and construction work. In addition, as mentioned previously, many of Island Transit's existing vehicles are past due for replacement. For these reasons, Island Transit should plan to replace its entire Whidbey Island fixed-route fleet with zero-emissions vehicles as quickly as possible starting in 2026. This will allow sufficient time for the agency to design, fund, procure, install, and commission the required infrastructure ahead of the arrival of the first vehicles, and would avoid incurring the high cost of installing the infrastructure to serve only a few vehicles. On Camano Island, Island Transit should convert the facility (or construct a new one, if necessary) for zero-emissions operation by early 2028 and start procuring the battery electric fleet for entry into service in the same year. This would allow the transition on both Islands to begin almost simultaneously. At the same time, having two years gap between the two projects will allow Island Transit to more efficiently manage both projects internally with current resources.

Island Transit should consider several factors as it begins its transition to a zero-emissions fleet. First, FCEBs, and use of hydrogen for transportation in general, are largely unexplored in Washington State, posing significant uncertainty to the agency. Agency leaders should talk closely with other agencies in the state (such as Twin Transit) that will be operating FCEBs, as their experiences and incurred costs will likely be similar to Island Transit's. Second, because there are operational implications to owning a mixed fleet of both FCEBs and BEBs, the agency should consider these challenges and develop operational contingency plans before purchasing vehicles. Finally, the total cost of ownership of each technology is also a concern. Although federal grants mitigate much of the upfront cost of zero-emissions vehicles and infrastructure, the agency will need to identify funding sources for the recurring costs – ranging from charger maintenance to hydrogen fuel – that are less likely to qualify for grants.

Table 7 and Table 8 below show the preferred timeline for asset replacement over the transition period, taking into account limitations on vehicle order size related to availability of local matching funds.

Table 7 shows the start date for the process of facility upgrade development or vehicle procurement as well as the date when the facility or vehicle enters service for fixed route operation. For the infrastructure expansions, the estimated timeline for funding application and approval, detailed engineering, and construction for such projects can be up to three years. Hence, it is recommended that Island Transit begin the funding application and detailed design development for Whidbey Island immediately. For the vehicles, the agency will need to secure the funding and place order for the vehicle approximately two years before entry into service. The lead times for zero emission vehicles — approximately 18 to 24 months — are longer than diesel vehicles due to the developing supply chains and limited availability of the raw materials for battery and fuel cell production.

Table 7 Asset Procurement Timeline for Fixed Route Operation

Year (Start	Year (Entry	Asset	Replacing
of Process)	into Service)		
2023	2026	Hydrogen storage / fueling station (Whidbey Depot)	N/A
2024	2026	Three 40' hydrogen fuel cell buses Two 35' hydrogen fuel cell buses	118-120, 1 cutaway, 1 new
2025	2027	Three 40' hydrogen fuel cell buses Two 35' hydrogen fuel cell buses	122-124, 1 cutaway, 1 new
2025	2028	Three centralized 150 kW chargers (Camano Depot)	N/A
2026	2028	Two 40' hydrogen fuel cell buses Three 35' battery-electric buses (492 kWh)	125-127, 2 cutaways
2027	2029	Four 35' hydrogen fuel cell buses Two 40' battery-electric buses (492 kWh)	128-129, 4 cutaways
2028	2030	Two 35' hydrogen fuel cell buses Two 35' battery-electric buses (492 kWh)	130, 3 cutaways
2029	2031	Two 35' hydrogen fuel cell buses One 35' battery-electric buses (492 kWh)	131, 2 cutaways
2031	2033	Four 35' hydrogen fuel cell buses	132-135
2033	2035	Two 35' battery-electric buses (492 kWh)	136-137

Figure 10 below shows the fleet composition for fixed route operation by year as new zero emissions vehicles enter service.

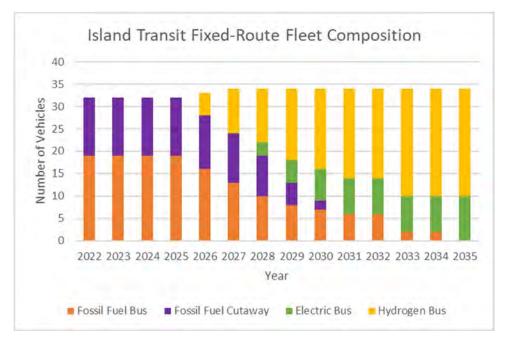


Figure 10 Fixed-Route Fleet Composition

Table 8 shows the start date for the process of charger installation or vehicle procurement as well as the date when the charger or vehicle enters service for paratransit and rideshare operation.

Table 8 Asset Procurement Timeline for Paratransit/Rideshare Route Operation

Year (Start of Process)	Year (Entry into Service)	Asset	Replacing
2022	2023	Five DC Fast Chargers (Whidbey	N/A
		Depot)	
2022	2023	Five Electric SUVs	Five Fossil Fuel Light Vehicles
2023	2024	Five Electric Vans	Five Fossil Fuel Light Vehicles
2023	2025	New Chargers (Whidbey Depot)	N/A
2024	2025	Five Electric Vans	Five Fossil Fuel Light Vehicles
2025	2026	Five Electric Vans	Five Fossil Fuel Light Vehicles
2025	2027	New Chargers (Camano Depot)	N/A
2026	2027	Four Electric Vans	Six Fossil Fuel Light Vehicles
2026	2028	New Chargers (Whidbey Depot)	N/A
2027	2028	Six Electric Vans	Six Fossil Fuel Light Vehicles
2028	2029	Nine Electric Vans	Nine Fossil Fuel Light Vehicles
2028	2030	New Chargers (Whidbey Depot)	N/A
2029	2030	Nine Electric Vans	Nine Fossil Fuel Light Vehicles
2030	2031	Nine Electric Vans	Nine Fossil Fuel Light Vehicles
2030	2032	New Chargers (Camano Depot)	N/A
2031	2032	Nine Electric Vans	Nine Fossil Fuel Light Vehicles

2031	2033	New Chargers (Whidbey Depot)	N/A
2032	2033	Nine Electric Vans	Nine Fossil Fuel Light Vehicles
2033	2034	Nine Electric Vans	Nine Fossil Fuel Light Vehicles
2033	2035	New Chargers (Whidbey Depot)	N/A
2034	2035	Nine Electric Vans	Nine Fossil Fuel Light Vehicles
2035	2036	Eight Electric Vans	Eight Fossil Fuel Light Vehicles
2036	2037	Five Electric Vans	Five Fossil Fuel Light Vehicles
2036	2038	New Chargers (Whidbey Depot)	N/A
2037	2038	Three Electric Vans	Three Fossil Fuel Light Vehicles
2038	2039	Three Electric Vans	Three Fossil Fuel Light Vehicles

Figure 11 below shows the fleet composition for Paratransit and Rideshare operations by year as new zero emissions vehicles enter service.

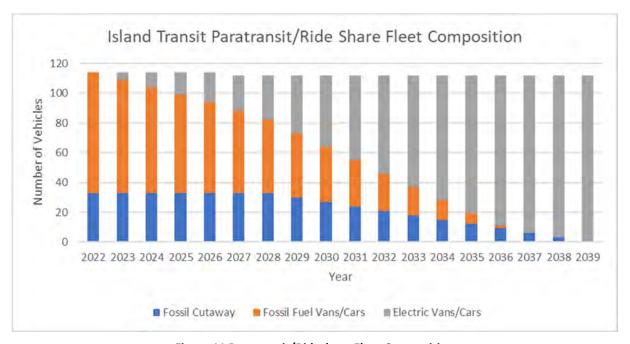


Figure 11 Paratransit/Rideshare Fleet Composition

9. Conceptual Infrastructure Design

As discussed above, the infrastructure required to support zero-emissions vehicles (fast chargers and battery maintenance areas, or hydrogen storage, pumping, and fuel-cell repair areas) has many bespoke requirements restricting how it can be installed in an existing (or even in a new) facility. Although a detailed engineering study of each location would be required to create a full design, this section presents conceptual layouts to help Island Transit leaders understand the impact the new infrastructure will have on each location.

The agency's Whidbey Depot in Coupeville is its largest and most versatile facility. It has the space to accommodate the minimum setbacks between hydrogen tanks and adjacent buildings, property lines, and other fueling systems that are required by NFPA code. Even on such a large site, however, these safety regulations, and the large footprint of a hydrogen fueling station, restrict the placement of such a station to only a few locations on the property. Figure 12 below shows a conceptual layout for one such location, near the existing bus wash and fueling building. Given the hydrogen storage tank size of approximately 10,000 gallons, a hydrogen station footprint of approximately 30' by 85' was assumed; this would provide sufficient space for the tank itself, the pumps, chillers, vaporizers, and other equipment to handle the hydrogen, and the electrical equipment to power each of these items. Two hydrogen pumps were assumed to be installed in the nearby fueling lane, and a protective wall was proposed east of the hydrogen station because of the inadequate setback distance between the station and the nearby property line.

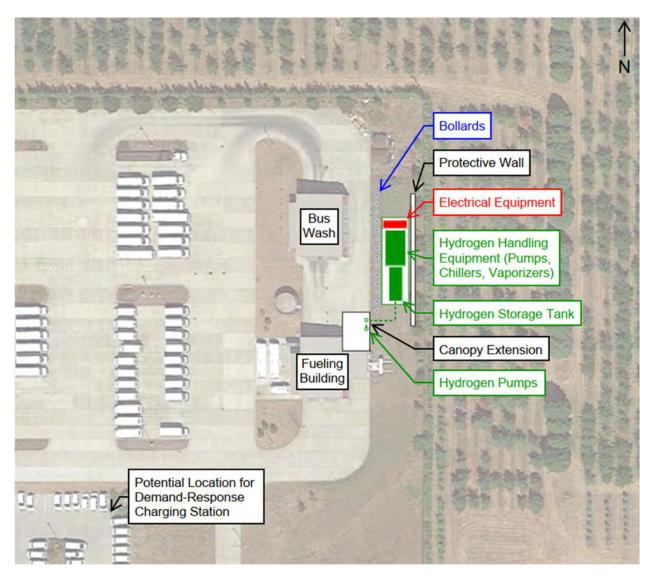


Figure 12 Whidbey Depot Hydrogen Station Conceptual Layout

The Camano Depot is much more space constrained. However, a curb could be installed between the two rows of existing parking spaces to accommodate the charging dispensers as shown in Figure 13, and a trench constructed to house charging cabinets and ancillary equipment placed on the northwest corner of the property.

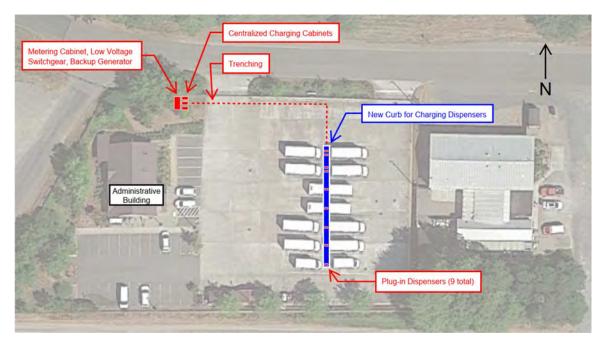


Figure 13 Camano Depot Charging Station Conceptual Layout

10. Current and Future Resource Availability

10a. Battery Electric

The electrical grid in Washington State is well developed and, aside from reliability challenges in the Island Transit service area, is well suited to supply electricity to meet the agency's BEB operation needs. The primary resource constraint on use of BEBs is likely to be the supply of components, especially batteries.

Although batteries have existed for centuries, the recent rapid growth in the electric vehicle market has strained the battery supply chain. Most battery types available today are produced with several key rare materials, most notably lithium. Other electric vehicle components are also produced using rare earth minerals: neodymium is a vital component of motor magnets, and terbium and dysprosium are added to improve magnetism at high temperatures. Although the mining industry is currently able to meet EV manufacturers' demand, the need for these rare-earth elements may become a constraint as EV demand continues to grow. Island Transit is encouraged to monitor the state of the EV industry, for example by attending conferences, to stay up to date on the EV and battery market's supply chain and the development of any new battery chemistries that may require fewer, or different, rare-earth elements.

10b. Hydrogen Fuel Cell

Unlike electricity, the availability of hydrogen is comparatively limited. Currently, hydrogen has a small number of commercial applications, such as fertilizer production, fossil fuel processing, and food refinement. These applications generally draw their hydrogen from dedicated sources that are located close to the point of use. Although hydrogen production in Washington State is scarce, there are several companies in the market:

- + BP West Coast Products LLC in Ferndale, WA has a production capacity of 439,000 kg/day. Its hydrogen is used for oil refineries.
- + Air Liquide in Kalama, WA has a production capacity of 686 kg/day; the hydrogen produced is for general sale.

In addition, public utilities are entering the hydrogen market. The Douglas County Public Utility District is planning a hydrogen production plant in East Wenatchee, which is expected to be ready in late 2022 or early 2023. This plant's electrolyzers will be powered by dams on the Columbia River, thereby producing green hydrogen, and are expected to produce up to two tons of hydrogen a day. This hydrogen is expected to fuel two planned hydrogen-vehicle refueling stations: in Chehalis, for Twin Transit buses, and in East Wenatchee.

Another proposal, by Fortescue Future Industries, seeks to establish a green hydrogen production facility on a retired coal mining site in Centralia.

At present, hydrogen is not used at scale for ground transportation. Even after the proposed fueling stations are commissioned, hydrogen generation and distribution facilities are likely to remain scarce, posing financial obstacles to widespread adoption of fuel cell vehicles. Identification of a reliable, nearby source of hydrogen – such as the plant in East Wenatchee – will be important to successful operation of FCEB because of the high costs associated with transporting hydrogen over long distances.

Another possibility for Island Transit is to avoid dependence on hydrogen suppliers altogether and generate hydrogen on-site. For example, the agency could generate hydrogen utilizing an electrolyzer. Although this will eliminate the agency's dependence on external suppliers, it is not recommended due to the high construction and maintenance cost of hydrogen generators.

11. Policy and Legislative Impacts on Technology

Island Transit is not alone in recognizing the immediate need to reduce carbon emissions and pollution to ensure a healthier climate. Leaders at both the state and federal levels recognize the significance of zero-emissions vehicles and have implemented strong plans to achieve these goals. These plans include both timelines to achieve carbon emissions reductions and grant programs to provide the funding necessary for these reductions. Island Transit's decision to convert its fleet to zero-emissions vehicles aligns well with these policies and incentives.

The federal government provides several types of incentives for transit agencies to convert their fleets to zero-emissions vehicles, the most well-known of which is the Low or No Emission Grant Program (49 U.S.C. 5339 (c)), or the "Low-No" program. Through this program, which can allocate up to \$1.6 billion annually for five years, the FTA provides matching funds for procurements of zero-emissions vehicles as well as for bus facility upgrades to support these vehicles. The Buses and Bus Facilities Competitive Program (49 U.S.C. 5339 (b)), though not limited to zero-emissions vehicles, can also provide federal funding for vehicle and infrastructure procurements. Other, more general funding options are also available. For example, US DOT's Public Transportation Innovation Program provides funding for research projects analyzing a wide range of new ideas, including zero-emissions vehicle technologies. The FHWA's Congestion Mitigation and Air Quality Improvement Program (CMAQ) provides over \$2.5 billion a year for measures, including the adoption of zero-emissions vehicles, that will improve air quality and reduce pollution. Notably, each of these programs are competitive, so Island Transit is not guaranteed to receive funding. As the zero-emissions vehicle landscape expands and a greater number of agencies begin converting their fleets, availability of this funding is expected to become scarcer. Though less common, some formula (i.e. non-competitive) funding is also available, for example through the Formula Grants for Rural Areas (49 U.S.C. 5311). This is generally more appropriate to fund operations rather than capital purchases.

The state government has also made clear the importance of zero-emission vehicle adoption. For light-duty vehicles, the state has announced a plan to ban the sale of gasoline-powered cars by 2035. The state has also reduced by half the sales tax levy on the first 650 hydrogen fuel-cell light/medium-duty vehicles sold. For heavy-duty vehicles the state has made similar commitments. In 2020, the Governor of Washington, Jay Inslee, signed the Multistate Zero Emission Medium- and Heavy-Duty Vehicle Memorandum of Understanding, aiming to increase the percentage of zero-emissions vehicles sold in these classes to 30% by 2030 and 100% by 2050. As mentioned above, the state has also invested four million dollars in building the state's first two hydrogen fueling stations in the cities of Chehalis and East Wenatchee. Furthermore, the state applied to host a regional hydrogen hub, of which four to eight are expected to be placed around the country. This network of hubs, which has been allocated \$8 billion in funding by Congress, will lower the barrier to entry for hydrogen fueling station operators, decreasing the cost of owning and operating fuel cell vehicles of all classes.

As Island Transit transitions to zero emissions technology, additional policies and resources will become applicable to Island Transit. Table 9 **Error! Reference source not found.**provides a summary of current policies, resources and legislation that are relevant to Island Transit's fleet electrification transition.

Table 9 Policy and Resources Available to Island Transit

Policy	Details	Relevance to
		Agency Transition
Electric Vehicle	The Washington State Department of	Can be used to
(EV) Charging	Transportation (WSDOT) is approved to establish a	fund charger
Station	grant program to deploy EV charging stations.	purchases.
Community	Preferences will be given to direct current fast	
Grant Program	charging (DCFC) projects.	
Authorization		
Volkswagen	The Washington State Department of Ecology	Can be used to
(VW) Settlement	together with the Office of the Governor and state	fund costs
Allocation	agencies will distribute funding to leverage 15% of	associated with
	Washington's portion of the VW Environmental	chargers for
	Mitigation Trust for the acquisition, installation,	demand-response
	operation, and maintenance of light-duty zero-	vehicles.
	emission vehicle charging infrastructure.	
Alternative Fuel	Vehicles powered by natural gas, propane,	Can minimize the
Vehicle (AFV)	hydrogen, or electricity can be exempt from the	tax associated
Retail Sales and	state retail sales and use tax if the vehicle is valued	with buying the
Use Tax	below \$45000 if it is new, and below \$30000 if it is	demand-response
Exemption	used.	vehicles.
Alternative	The WSDOT offers grants for the deployment of	Can be used to
Fueling	Level 2 and DCFC EV chargers and hydrogen fueling	fund costs
Infrastructure	infrastructure along highway corridors in	associated with
Grant Program	Washington. Eligible project costs include siting,	chargers.
	equipment purchases, electrical upgrades,	
	installation, operations and maintenance.	
Commercial	Businesses can receive a tax credit for purchasing	Can receive a tax
Alternative Fuel	new or used medium and heavy duty AFVs and	credit for
Vehicle (AFV)	vehicles converted to alternative fuels, and	purchasing the
and Fueling	installing the alternative fueling infrastructure.	vehicles and
Infrastructure		installing fueling
Tax Credit		stations.
EV and FCEV	Public land used for installing, maintaining, and	Can minimize the
Infrastructure	operating EV chargers is exempt from leasehold	tax associated
and Battery Tax	excise taxes.	with chargers.
Credit		

Policy	Details	Relevance to Agency Transition
Green Transportation Grant Program	The WSDOT offers grants for projects that reduce the carbon emissions from the Washington transportation system. This includes fleet electrification, modification or replacement of facilities to facilitate fleet electrification and hydrogen fueling, upgrades to electrical transmission and distribution systems, and constructing of charging and fueling infrastructure.	Can be used to provide funding to procure buses and renovate the facility.
The U.S. Department of Transportation's Public Transportation Innovation Program	Financial assistance is available to local, state, and federal government entities; public transportation providers; private and non-profit organizations; and higher education institutions for research, demonstration, and deployment projects involving low or zero emission public transportation vehicles. Eligible vehicles must be designated for public transportation use and significantly reduce energy consumption or harmful emissions compared to a comparable standard or low emission vehicle.	Can be used to fund electric bus deployments and research projects.
The U.S. Department of Transportation's Low or No Emission Grant Program	Financial assistance is available to local and state government entities for the purchase or lease of low-emission or zero-emission transit buses, in addition to the acquisition, construction, or lease of supporting facilities. Eligible vehicles must be designated for public transportation use and significantly reduce energy consumption or harmful emissions compared to a comparable standard or low emission vehicle.	Can be used for the procurement of hybrid or electric buses and infrastructure
The U.S. Department of Transportation's Urbanized Area Formula Grants - 5307	The Urbanized Area Formula Funding program (49 U.S.C. 5307) makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning. An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the U.S. Department of Commerce, Bureau of the Census.	This is one of the primary grant sources currently used by transit agencies to procure buses and to build/renovate facilities.

Policy	Details	Relevance to
		Agency Transition
The U.S.	This grant makes federal resources available to	This is one of the
Department of	states and direct	primary grant
Transportation's	recipients to replace, rehabilitate and purchase	sources currently
Grants for Buses	buses and related	used by transit
and Bus Facilities	equipment and to construct bus-related facilities,	agencies to
Competitive	including technological changes or innovations to	procure buses and
Program (49	modify low or no emission vehicles or facilities.	to build/renovate
U.S.C. 5339(b))	Funding is provided through formula allocations	facilities.
	and competitive grants.	
The U.S.	DOE will issue grants for research, development,	Could be used to
Department of	and demonstration of	fund the
Energy (DOE)	electric vehicle (EV) battery recycling and second	conversion of
Title Battery	use application projects	electric bus
Recycling and	in the United States. Eligible activities will include	batteries at end of
Second-Life	second-life applications for EV batteries, and	life as on-site
Applications	technologies and processes for final recycling and	energy storage.
Grant Program	disposal of EV batteries.	
Energy Storage	The U.S. Department of Energy (DOE) must	Can be used to
System Research,	establish an Energy Storage	fund energy
Development,	System Research, Development, and Deployment	storage systems
and Deployment	Program. The initial	for the agency.
Program	program focus is to further the research,	
	development, and deployment of short- and long-	
	duration large-scale energy storage systems,	
	including, but not limited to, distributed energy	
	storage technologies and transportation energy	
	storage technologies.	
The U.S.	The U.S. Economic Development Administration's	Can be used to
Economic	(EDA) STEM Talent	fund EV training
Development	Challenge aims to build science, technology,	programs.
Administration's	engineering and	
Innovative	mathematics (STEM) talent training systems to	
Workforce	strengthen regional	
Development	innovation economies through projects that use	
Grant	work-based learning models to expand regional	
	STEM-capable workforce capacity and build the	
	workforce of tomorrow. This program offers	
	competitive grants to organizations that create and	
	implement STEM talent development strategies to	
	support opportunities in high-growth potential sectors in	
	the United States.	

Policy	Details	Relevance to Agency Transition
Congestion	The U.S. Department of Transportation Federal	Can be used to
Mitigation and	Highway	fund capital
Air Quality	Administration's CMAQ Program provides funding	requirements for
Improvement	to state departments of transportation, local	the transition.
(CMAQ) Program	governments, and transit agencies for projects and	
	programs that help meet the requirements of the	
	Clean Air Act by reducing mobile source emissions	
	and regional congestion on transportation	
	networks. Eligible activities for alternative fuel	
	infrastructure and research include battery	
	technologies for vehicles.	

Despite the large number of potential funding opportunities available to Island Transit to transition to zero emissions technologies, these programs are competitive and do not provide Island Transit with guaranteed funding sources. Therefore, this analysis assumes that Island Transit will only receive funding through the largest grant programs that provide the highest likelihood of issuance to the agency. Specifically, this analysis assumed that Island Transit would receive 80% of the capital required to complete the bus, charging system, hydrogen fueling system and supporting infrastructure procurements outlined in this transition plan.

In summary, state and federal leaders share Island Transit's commitment to decarbonizing the transportation industry and shifting vehicle fleets to zero-emissions technologies. A wide range of funding options are available for Island Transit and its government partners to pursue. Given the competitive nature of most of the grant programs and the ever-increasing pool of agencies entering the zero-emissions market, to ensure that funding is made available it will be important for Island Transit to apply for a broad range of funding opportunities.

12. Workforce Impact

Island Transit staff currently operate and maintain a fleet composed entirely of fossil fuel vehicles. As a result, the staff have skill gaps related to the fuel cell, and high-voltage battery, components of the future vehicles. They are similarly inexperienced with the infrastructure – pumping, storage, and associated safety systems for hydrogen, and charging systems for battery-electric – associated with a zero-emissions fleet. Whether these systems are maintained by general in-house staff (as is sometimes done for chargers) or by a contracted third party (as is most common for hydrogen fueling stations), agency staff will still need to understand their principles of operation and interfaces with the vehicles.

To ensure that both existing and future staff members can operate Island Transit's future system a workforce assessment was conducted. Table 10 and Table 11 below provide details regarding the skill gaps for each workforce group within the agency and outlines training requirements to properly prepare the staff for future operations.

Table 10 Workforce Skill Gaps and Required Training: Hydrogen Fuel Cell

Workforce Group	Key Skills and Required Ongoing Training	
Agency Safety and	Hydrogen handling and safety measures (wayside and on-vehicle	
Training Officer, and	storage, outdoor and indoor leak detection and response), high-	
First Responders	voltage operations and safety, battery fire safety	
Maintenance Staff	All the above, plus fuel cell operation and repair, electric propulsion,	
	vehicle diagnostics, and battery systems	
Electricians	High voltage operations and safety, hydrogen-related regulations for	
	depot upkeep and maintenance	
Operators/Fuelers	Hydrogen safety measures, electric propulsion operating techniques,	
	fueling procedures	
Agency Management	Understanding of hydrogen safety measures, fuel cell technology,	
and General Staff	vehicle operating practices; state of the regional hydrogen	
	marketplace	

Table 11 Workforce Skill Gaps and Required Training: Battery-Electric

Workforce Group	Key Skills and Required Ongoing Training	
Agency Safety and	High-voltage operations and safety, battery fire safety	
Training Officer, and		
First Responders		
Maintenance Staff	All the above, plus electric propulsion, vehicle diagnostics, and battery	
	systems	
Electricians	High voltage operations and safety, charging system functionality and	
	maintenance	
Operators/Fuelers	Electric propulsion operating techniques, plug-in and pantograph	
	charging system usage, bus alignment with on-route chargers	
Agency Management	Understanding of vehicle and charger technology and operating	
and General Staff	practices	

To address these training requirements, Island Transit should consider the following training strategies:

- + Add requirements to vehicle and infrastructure specifications to require contractors to deliver training programs to mitigate the identified skill gaps.
- + For both vehicle types, but especially for hydrogen FCEBs, coordinate with other transit agencies operating such vehicles to transfer 'lessons learned.' Send staff to transit agency properties that have already deployed zero-emissions buses to learn about the technology.
- + Coordinate with local educational institutions, ranging from aerospace universities to vocational schools, to learn about curricula applicable to hydrogen fuel-cell technology and battery-electric propulsion. Consider partnering with a local school to develop a curriculum.

Island Transit should begin training staff and other local stakeholders on these technologies ahead of the delivery of the first vehicles and fueling/charging systems.

The shift to zero-emissions vehicles is expected to have a minor impact on the size of the workforce. Vehicle maintenance requirements are expected to decrease slightly, because zero-emissions vehicles have fewer moving parts and therefore need less lubrication, adjustment, etc. The size of the infrastructure maintenance team is unlikely to change: BEB chargers are almost entirely solid-state devices, requiring few repairs, and hydrogen fueling stations are complex systems requiring specialized training that most agencies hire a third-party contractor to maintain.

The primary change in workforce size is expected on the operations side, particularly in the number of drivers. For all operating modes, buses must frequently deadhead to the depot for charging/fueling to avoid depleting the battery/fuel tank. As buses deadheading to the depot are not making passenger trips, this inefficiency will require additional driver-hours, and likely a larger pool of drivers.

13. Recommendations and Next Steps

The transit industry is currently at the beginning stages of a wholesale transition. As zero-emissions vehicle technology matures, climate concerns become more pressing, and fossil fuels increase in cost, many transit agencies will transition their fleets away from diesel/propane vehicles in favor of either battery-electric or hydrogen fuel cell propulsion. Island Transit is well positioned to be part of this movement.

Island Transit has selected operation of a mixed fleet (with FCEBs on Whidbey Island and BEBs on Camano Island) as the most practical option for its zero-emissions fixed-route fleet. This option would require installation of a hydrogen fueling station at the Whidbey Depot, but will allow the agency to reduce recurring costs, keep its transit fleet size nearly constant, and install all service-critical infrastructure at the two depots. Though the choice of a mixed fleet will introduce operational and maintenance complexity, it is best suited for the unique constraints of the two islands.

In general, hydrogen fuel cell technology becomes more economical as the fleet size gets larger, because (unlike for charging infrastructure for BEBs) fueling infrastructure cost does not linearly increase with fleet size. In other words, fuel-cell operations are more economical for larger fleets because the large upfront infrastructure capital cost is spread among more vehicles. Therefore, Island Transit should seek opportunities to partner with other groups – such as nearby Public Works Departments – to share the cost (as well as the benefit) of building and operating a hydrogen fueling station.

Island Transit should work towards the goal of converting its Whidbey and Camano fixed-route fleets to hydrogen and battery-electric vehicles, respectively. To do so, Island Transit will need to acquire a total of 24 buses for Whidbey Island and 10 buses for Camano Island in the timeline provided in Section 8. In terms of infrastructure, the Whidbey depot will need to be equipped with a hydrogen fueling station with two pumps while the Camano Island facility will require three centralized chargers (each with three dispensers). As the first zero-emissions buses are not

expected to enter service until 2026, Island Transit has enough time to lay the groundwork for this transition.

For the remainder of its fleet that serves the paratransit and demand response service, Island Transit should have a one-to-one conversation from its current fossil fuel fleet to battery electric fleet according to the time provided in Section 8. Charging infrastructure will be required at the Whidbey facility to support the electric vehicle fleet. On Camano Island, the charging infrastructure will need to be expanded to support additional electric vehicles.

To prepare for the transition, Island Transit should consider the following steps:

- Vehicles:
 - Develop vehicle specifications.
 - As part of vehicle procurements, purchase 12-year battery warranties, rather than assuming the risk of battery degradation.
 - As part of vehicle procurements, require the zero-emissions bus vendor to have a technician on site or nearby in case of problems. This is most economical when the technician is shared with several nearby agencies.
 - Reach a "mutual aid" agreement with a nearby transit agency that would let Island
 Transit borrow spare buses in case of difficulties with its fleet.
 - Retain a small fossil fuel reserve fleet to ensure adequate backup for zeroemissions vehicles if any incidents or weather conditions require it.
 - Develop a strategy for completing grant applications to cover vehicle costs.

- Infrastructure:

- Begin the planning and design process for the hydrogen fueling station at the Whidbey Depot. Coordinate the timing of these stations to be ready for the arrival of the first BEBs in 2026.
- Develop contingency plans in case the hydrogen fueling station experiences unexpected downtime and service must be maintained using buses already fueled.
- Conduct a fire safety analysis for both facilities.
- Develop a strategy for completing grant applications to cover infrastructure costs.
- Coordinate the installation of demand-response vehicle supporting infrastructure at both locations to save money by doing both projects concurrently

- Other:

 Begin training staff and other local stakeholders on battery-electric and fuel cell technology as described in Section 12.

Island Transit is encouraged to monitor the state of the market in the zero-emissions vehicle industry, for example by attending conferences, to understand the technology, cost, and supply factors behind each propulsion type and locate any potential partners for shared infrastructure. If the cost or operating parameters of either technology change dramatically, or if a state agency or local partner agrees to share infrastructure with Island Transit, the agency may choose to commit entirely to one or the other drivetrain technology rather than pursuing a mixed fleet.

List of Available Charging Equipment (Adapted from Evenergi)

Manufacturer	Model	Type of Charger	Charge Rate (kW)	Form factor	Number of Plugs	Plug Types	Efficiency
ABB	Terra 360	DCFC	90 - 360	Free standing	4	CCS, Type 2, CHAdeMO	95%
ABB	Terra EV Fast Chargers	DCFC	50 - 180	Free standing	2	CCS, CHAdeMO	94%
ABB	Terra DC Wallbox	DCFC	11 - 24	Wall mount	2	CCS, CHAdeMO	95%
ABB	HVC-PD UL	DCFC	100 - 600	Free standing cabinet, roof mount connector	1	Pantograph (J3105)	96%
ABB	HVC-Depot UL	DCFC	100 - 150	Free standing	3	CCS	
ABB	Terra HP	DCFC	175 - 350	Free standing	2	CCS, CHAdeMO	94%
ABB	Terra 94	DCFC	90	Free standing	1	CCS	
ABB	Terra 124	DCFC	120	Free standing	2	CCS	
ABB	Terra 184	DCFC	180	Free standing	2	CCS	
Amply	INRUSH	DCFC	Custom	Containerized	Up to 10	CCS, Type 2	
Blink	IQ 200	Level 2	7.2 - 19.2	Wall mount/pedestal	1	SAE J1772	
ChargePoint	CPE250	DCFC	62.5 - 250	Free standing	2	CCS1, CCS2	95%
ChargePoint	Express Plus	DCFC	40 - 500	Free standing	2	CCS1, CCS2	95%
Clippercreek	CS-100	Level 2	19.2	Wall mount/pedestal	1	SAE J1772	
Delta	Delta DC Wallbox	DCFC	25	Wall mount	2	CCS, CHAdeMO	94%
Delta	Ultrafast	DCFC	200	Free standing	4	CCS, Type 2, CHAdeMO	94%
Enel	JuicePump Flexi 150	DCFC	50 + 150	Free standing	2	CCS	
Enel X	JuicePump 75	DCFC	50 - 75	Free standing	2	CCS	
EVbox	Tronig Modular	DCFC	90 - 240	Free standing	3	CCS	95%
EVbox	Tronig 50	DCFC	22 - 50	Free standing	3	CCS, Type 2	
EVbox	Ultroniq	DCFC	100 - 350	Free standing	1-2	CCS	95%
FLO	CoRe+ Max	Level 2	19.2	Wall mount/pedestal	1	SAE J1772	
Fimer	Electra	DCFC	60 - 150	Free standing	3	CCS, Type 2, CHAdeMO	96%
Heliox	DC Outlet Column	DCFC	250	Free standing	1	CCS1	
Heliox	Ultra-Fast	DCFC	450	Free standing	1	Pantograph (J3105)	
Heliox	Flex	DCFC	180 - 360	Free standing	3	CCS, Pantograph (J3105)	96%
Hitachi ABB	Grid e-Motion	DCFC	50 + 600	Containerized modular	Customizable	CCS, Pantograph (J3105)	
Kempower	C-Series	DCFC	50 - 600	Free standing	4 - 8	CCS1, CHAdeMO	94%
Kempower	S-Series	DCFC	200	Free standing	2	CCS2, CHAdeMO	
Momentum Dynamics	2 22 22	DCFC	50 - 450	Charging pad		Wireless induction	92-94%
Pod Point	Delta DC	DCFC	25	Wall mount	1	CCS	94%
Proterra	1440kW Charging System	DCFC	1440	Containerized	48	CCS, Pantograph (J3105)	3470
Proterra	Commercial Series	DCFC	60 - 120	Free standing	4	CCS1, Pantograph (J3105)	95%
Proterra	Industrial Series	DCFC	60 - 180	Free standing	4	CCS1, Pantograph (J3105)	95%
Siemens	Sicharge D	DCFC	160 - 300	Free standing	Up to 4 per charging center + 1 AC	CCS, CHAdeMO	96%
Siemens	Sicharge UC	DCFC	100 - 600	Free standing	Up to 5 per charging center	CCS, Pantograph (J3105)	97%
Sun Country	SCH Series	Level 2	7.2 - 19.2	Wall mount/pedestal	1	SAE J1772	
Tritium	PKM150	DCFC	150	Free standing	2	CCS	98.50%
Tritium	PK350	DCFC	350	Free standing	2	CCS	98.50%
Tritium	RTM	DCFC	75	Free standing	2	CCS	95%
Tritium	RT50	DCFC	50	Free standing	2	CCS	94%
Tritium	RT175-S	DCFC	175	Free standing	2	CCS	98.50%
Wave		DCFC	125 - 500	Charging pad		Wireless induction	90%

List of Available Electric and Hybrid Transit Buses (Adapted from EPA)

Arboc Equess Charge Electric 90 875 330 75 330 75 340 340	Manufacturer	Model	Fuel Type	Power System	Length (ft)	# Seated Passengers	Battery Capacity (kWh)	Max Charge Speed (kW)
BYD RAM Electric BYD 90 kWx2 in-wheel motor 30 22 215 150	Arboc	Fauess Charge	Flectric					Speed (KW)
BYD K7M Electric BYD 90 kW2/in-wheel motor 30 22 215 150								
BYD K7M ER Electric BYD 150 kW2 in-wheel motor 30 22 313 150				RVD 90 kWy2 in_wheel motor				150
BYD K8M Electric BYD 150 kW. Integrated axide 35 32 391 150								
BYD K9M Electric BYD 150 kWx2 in-wheel motor 40 37 313 150								
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New FlyerXcelsior HybridHybridCummins B6.74040New FlyerXcelsior CHARGEElectricSiemens ELFA3 Electric Drive System 160kW3532440New FlyerXcelsior CHARGEElectricSiemens ELFA3 Electric Drive System 180kW4040525Nova BusLFS HEVHybridCummins ISB6.74041Nova BusLFSeElectricDana TM4 SUMO HD electric powertrain 230 kW / 2700 Nm4041Nova BusLFSe+ElectricBAE Systems HDS2004041564450ProterraZX5ElectricProterra 250kW permanent magnet motor Proterra dual independent 205kW motors3529225ProterraZX5ElectricProterra 250kW permanent magnet motor Proterra dual independent 205kW motors4040450ProterraZX5+ElectricProterra 250kW permanent magnet motor Proterra dual independent 205kW motors3529225ProterraZX5+ElectricProterra 250kW permanent magnet motor Proterra dual independent 205kW motors3529225	Hometown	Urban	Electric			40		
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Nova Bus LFSe Electric Dana TM4 SUMO HD electric powertrain 230 kW / 2700 Nm 40 41 Nova Bus LFSe+ Electric BAE Systems HDS200 40 41 564 450 Proterra ZX5 Electric Proterra 250kW permanent magnet motor Proterra dual independent 205kW motors 35 29 225 Proterra ZX5 Electric Proterra 250kW permanent magnet motor Proterra dual independent 205kW motors 40 40 450 Proterra ZX5+ Electric Proterra 250kW permanent magnet motor Proterra dual independent 205kW motors 35 29 225 Proterra ZX5+ Electric Proterra 250kW permanent magnet motor Proterra dual independent 205kW motors 35 29 225 Proterra ZX5+ Electric Proterra 250kW permanent magnet motor Proterra dual independent 205kW motors 40 40 450	New Flyer	Xcelsior CHARGE	Electric	Siemens ELFA3 Electric Drive System 180kW	40	40	525	
Nova Bus LFSe+ Electric BAE Systems HDS200 40 41 564 450 Proterra ZX5 Electric Proterra 250kW permanent magnet motor Proterra dual independent 205kW motors 35 29 225 Proterra ZX5 Electric Proterra 250kW permanent magnet motor Proterra dual independent 205kW motors 40 40 450 Proterra ZX5+ Electric Proterra 250kW permanent magnet motor Proterra dual independent 205kW motors 35 29 225 Proterra ZX5+ Electric Proterra 250kW permanent magnet motor Proterra dual independent 205kW motors 35 29 225 Proterra ZX5+ Electric Proterra 250kW permanent magnet motor Proterra dual independent 205kW motors 40 40 450	Nova Bus	LFS HEV	Hybrid	Cummins ISB6.7	40	41		
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Proterra ZX5+ Electric Proterra 250kW permanent magnet motor Proterra dual independent 205kW motors 40 40 450	Proterra	ZX5+	Electric	Proterra 250kW permanent magnet motor Proterra dual independent 205kW motors	35	29	225	
	Proterra	ZX5+	Electric		40	40	450	
				Proterra 250kW permanent magnet motor Proterra dual independent 205kW motors	40			

List of Available Hydrogen Fueling Infrastructure Providers

Supplier	Service
Air Liquide	End-to-End
Messer	End-to-End
Air Products	End-to-End
Trillium	End-to-End
Linde	End-to-End
Chart	End-to-End
Cummins	End-to-End

List of Available Fuel Cell Buses

Manufacturer	Model	Fuel Type	Power System	Length (ft)	# Seated Passengers	Battery Capacity (kWh)	Max Hydrogen (kg)
New Flyer	XHE40	Hydrogen	Siemens Elfa2 Electric Drive System	40	40		37.5
New Flyer	XHE60	Hydrogen	Siemens Elfa2 Electric Drive System	60	61		60
Van Hool	A330	Hydrogen	Siemens Elfa Drive; two AC induction motors 85 kw each	40	30		50
ENC	AXESS-FC	Hydrogen	BAE Systems	40	43		35

Maint Building Generator G-02 hours									
PM min hr run Emergency min hr run									
	Minutes	•					,		
DATE	TIME RUN	TOTAL RUN	1			DATE	TIME RUN	TOTAL RUN	
9/17/2019		124.4				11/13/2020	14.6	147.4	
10/15/2019	0.9	124.9				1/5/2021	25.8	173.5	
11/12/2019	0.4	125.3				11/17/2021	26	213.7	
12/10/2019	0.5	125.8	1						
1/7/2020	0.6	126.4	1						
2/5/2020	0.3	126.7	1						
3/31/2020	0.8	127.5	1						
4/2/2020	2.2	129.7	Yearly Test	ting					
7/7/2020	1.2	130.9							
8/3/2020	0.5	131.4							
9/1/2020	0.3	131.7							
9/29/2020	0.3	132							
10/26/2020	0.8	132.8							
11/24/2020	14.6	147.4							
12/21/2020	0.3	147.7							
1/5/2021	25.8	173.5							
1/18/2021	0.4	173.9							
2/18/2021	0.4	174.3							
3/15/2021	0.5	174.8							
4/5/2021	0.6	175.4	Yearly Test	ting					
4/13/2021	2.7	178.1							
5/10/2021	0.4	178.5							
6/7/2021	0.5	179							
8/2/2021	0.1	180.1							
10/25/2021	7.6	187.7							
11/17/2021	26	213.7							
11/22/2021	0.4	214.1							
4/13/2022		222.9							
4/27/2022	1.9	224.8	Yearly Test	ting	1				

	Fuel Building Generator G-03 hours									
F	4 t		1			.				
PIV	1 min hr rur Minutes	n				Emergency min hr run				
DATE		TOTAL RUN	1			DATE	TIME RUN	TOTAL RUN		
9/17/2019	THVIL KON	95				11/13/2020	14.6	118.5		
10/15/2019	0.5	95.5				1/5/2021	26	144.9		
11/12/2019	0.4	95.9				11/17/2021	25.7	185.6		
12/10/2019	0.6	96.5				11/1//2021	23.7	105.0		
1/7/2020	0.2	96.7								
2/6/2020	0.3	97								
3/31/2020	0.9	97.9								
4/2/2020	2.2	100.1	Yearly Test	ting						
7/7/2020	1.9	102	,	- 0						
8/3/2020	0.4	102.4								
9/1/2020	0.6	103								
10/26/2020	0.5	103.5								
11/24/2020	14.6	118.5								
12/21/2020	0.4	118.9								
1/5/2021	26	144.9								
1/18/2021	0.4	145.3								
2/18/2021	0.5	145.8								
3/15/2021	0.4	146.2								
4/5/2021	2.7	148.9	Yearly Test	ting						
4/14/2021	0.4	149.3								
5/10/2021	0.6	149.9								
6/8/2021	0.3	150.2								
8/2/2021	0.3	151.5								
10/25/2021	8.4	159.9								
11/17/2021	25.7	185.6								
11/22/2021		186								
4/15/2022	8.7	194.7	7							
4/27/2022	2.1	196.8	8 Yearly Testing							

Bodarya, Mihir

From: customercare@pse.com

Sent: Thursday, September 29, 2022 9:35 AM

To: Bodarya, Mihir

Subject: RE: Outage dates inquiry [#1190019]

** CAUTION: This email originated outside Hatch. Do not click links or open attachments unless you can authenticate the sender and the content

Dear Mihir Bodarya,

Thank you for contacting Puget Sound Energy regarding outage duration information.

This information is for the address 19758 State Route 20, New, Coupeville, WA 98239. The meter numbers is Z003497343.

The durations are as follows:

- 04/03/2022 2.4 hours
- 12/30/2021 1.66 hours
- 12/22/2021 2.78 hours
- 11/15/2021 2.46 hours
- 09/17/2021 5.24 hours
- 11/12/2020 1.84 hours
- 12/20/2018 9.23 hours
- 08/11/2018 .61 hours
- 01/18/2017 1.13 hours
- 01/14/2017 4.91 hours
- 07/25/2016 1.05 hours

If we can be of additional service, we are available via email at customercare@pse.com, by phone at 1-888-225-5773 or TTY 1-800-962-9498. For self-serve options, or to create a MyPSE account, please visit www.pse.com. Thank you for being our customer. We appreciate your business.

Sincerely, Tina 4347 Online Customer Care

PUGET SOUND ENERGY www.PSE.com

--Original Message--

From: mihir.bodarya@hatch.com Date: 09/16/2022 10:34 AM To: customercare@pse.com

Subject: RE: Outage dates inquiry [#1190019]

CAUTION - EXTERNAL EMAIL

Phishing? Click the PhishAlarm "Report Phish" button.

Hello,

Thank you for this information. It is very helpful. Is it also possible to get the durations of these outages. Also, it would be great if you could confirm which one of the two sites below is this data for. I have requested the same data for both sites so just wondering which data belongs to which site.

- Main Facility 19758 State Rte 20, Coupeville, WA 98239
- Harbor Station Transfer Center 760 SE Bayshore Dr, Oak Harbor, WA 98277

Thanks again for the help.

Regards, Mihir

From: customercare@pse.com <customercare@pse.com>

Sent: Thursday, September 15, 2022 4:18 PM **To:** Bodarya, Mihir <mihir.bodarya@hatch.com> **Subject:** Outage dates inquiry [#1190019]

** CAUTION: This email originated outside Hatch. Do not click links or open attachments unless you can authenticate the sender and the content

Dear Mihir Bodarya with Island Transit,

Thank you for contacting Puget Sound Energy.

At your request we are emailing to provide you the dates of outages for your area that may or may not have affected service for meter number Z003497343. There are no call history reports recorded for individual account 200003604374.

- 04/03/2022
- 12/30/2021
- 12/22/2021
- 11/15/2021
- 09/17/2021

- 11/12/2021
- 12/20/2018
- 08/11/2018
- 01/18/2017
- 01/14/2017
- 07/25/2016

If we can be of additional service, we are available via email at customercare@pse.com, by phone at 1-888-225-5773 or TTY 1-800-962-9498. For self-serve options, or to create a MyPSE account, please visit www.pse.com. Thank you for being our customer. We appreciate your business.

Sincerely,

Toni 4022. Online Customer Care PUGET SOUND ENERGY www.PSE.com

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APPENDIX B

AWARDED GRANTS THROUGH 2023

STATE AND FEDERAL GRANTS AWARDED (5) HDelit) AND/OR APPLIED FOR AS OF JULY 27, 2023

		GRANT PI	ROGRAM 8	& PROJECT		TOTAL PROJECT COST \$	MATCH PERCENT	AGES	ISLAND TRANSIT MATCH	DATE APPLIED	AWARDED
	VEHICLES										
С	2021-2023 Consolida	ated Grant	, 80/20 Ma	itch							
	Replacement: Three						116,413	20%	116,413	10.30.20	YES
	ZEV Fleet Transition I WSDOT approved pro					582,066	465,653 582,066	80% 100%		3.23.23	
	Expansion: Nine Ligh	ot Duty God	colina fuola	nd busos			280,940	20%	280,940	10.30.20	YES
	ZEV Fleet Transition	Plan compl	eted and s	ent to FTA			1,123,762	80%	200,540		120
	WSDOT approved pro	oject scope	change to	6 all-electi	ric transit vans.	1,404,702	1,404,702	100%		3.23.23	
S	FY2023-2025 Green	Transporta	ation, 80/2	0 Match							
	Five new zero emissi	on battery	electric vel	nicles, char	gers,		405,826	20%	405,826	9.29.22	YES
	infrastructure, and tr	aining				2,029,124	1,623,298 2,029,124	80% 100%			
S	FY2022- 2023 Green	Transport	ation Supp	lemental		2,023,124	2,023,124	10070			
	ZEV Fleet Transition	Plan					15,000	20%	15,000	6.8.22	YES
							60,000	80%			
						75,000	75,000	100%			
	OPERATING PROJ	<u>ECTS</u>									
С	FY2023-2025, FY202	5-2027, Co	nsolidated	Grant, 80	/20 Match, 4 year as	 k					
	Operating Assistance						012.250	20%	812,359	10.27.22	YES
С	Operating Assistance	TOT NORTH	Journa Keg	ioriai Conn	ECLUI		812,359 3,249,436	20% 80%	812,359	10.27.22	163
					FY 2023-2025	4,061,795	4,061,795	100%			
							861,832	20%	861,832	10.27.22	YES
					FY 2025-2027	4,309,159	3,447,327 4,309,159	80% 100%			
							.,,,,,,,,,,				
					Total	8,370,954			1,674,191		
	Contain Namicilia Nam						20.007	200/	20.007	40.27.22	VEC
С	Sustain Mobility Mar	iagement i	rogram				38,997 155,989	80%	38,997	10.27.22	YES
					FY 2023-2025	194,986	194,986	100%			
					11 2023-2023	134,380					
					FY 2025-2027	206,861	41,372	20%	41,372	10.27.22	YES
							165,489	80%	,		
					Total	401,847	206,861	100%	80,369		
	CAPITAL PROJECT	<u>'S</u>									
ς	2022 Department of	Commerc	e Grant - F	nergy Retr	ofits for Public Ruildi	ings - Solar					
	Installation of grid-tie	ed solar pa	nels at Wh			53 30.0.	133,795	50%	133,795	8.19.21	YES
	Installation complete Camano base also co			use grant fu	ınds.	267,590	133,795 267,590	50% 100%			
_						·	,				
5	FY2021-2023 Region Purchase and installa				rstems (PIS)		104,477	20%	104,477	10.15.20	YES
	for existing fixed-rou					* WSDOT award= \$418,000	* 417907	80%			
	(PIS consists of automate signs, and audio-visual m			, interior and	exterior destination	522,384	522,384	100%	1		
						322,304	322,304	100/0			
F	5339(b) FY19 Bus & Propane Evacuation		es, 80/20 I	Match			1,203	20%	1,203	6.10.19	YES
	(Refrigerant Evacuation I	Machine and				6.044	4,811	80%			
	Part and equipment	snortage h	as this as a	iong term	lead time.	6,014	6,014	100%			
S	2023-2025 State Bus	& Bus Fac	ilities gran	t, 80/20							
	South Whidbey Trans	sit Center (SWTC) Plar	nning & De	sign		300,000	20%	300,000	1.6.23	NO
						1,500,000	1,200,000 1,500,000	80% 100%			
			/21				1,500,000	100/0			
F	2023-2025 Low or N	o Emission	(NOLO), 5	339(c) and	Bus & Bus Facilities	(BBF), 5339(b), 80/20					
	SWTC Engineering, D	esign, and	Constructi	on (5339b	BBF)		8,234,100	52%	8,234,100	1.6.23	YES
						15,760,500	7,526,400 15,760,500	48% 100%			
	Zoro Fasiania a	function -	0 0 5	l lo ext. d	a+				2.004.022	2 40 22	NO.
	Zero Emission Bus In Operations Bases of						3,064,838 7,151,289	30% 70%	3,064,838	3.10.23	NO
						10,216,127	10,216,127	100%			

STATE AND FEDERAL GRANTS AWARDED (5) HD AND/OR APPLIED FOR AS OF JULY 27, 2023

	T T												
:	EV2024 Cd	 ngression:	ally Direct	 -d Snendir	ng request								
	1 12024 CC	ligicosioni	any Directo	o Spendii	ing request								
	Senator M	lurray - Sou	ıth Whidhe	v Transit (Center Desi	gn-Ruild	4,000,000	7,842,000	52%	7,842,0	200	2.28.23	YES
	Seriator iv	lullay - 300	itii vviiiube	zy mansic (center besi	gii-builu	4,000,000	7,168,000		0	,,,,	2.20.23	1123
								 					
								15,010,000	100%				
_	Senator C	antwell Sc	outh Whidk	ey Transit	Center De	sign-Build		7,842,000		7,842,0	900	3.10.23	NO
								7,168,000	_				
							15,010,000	15,010,000	100%				
_													
_													
_	Represent	ative Larse	n South V	Vhidbey T i	ransit Cent	e r Design-Build		7,842,000	52%	7,842,0	200	3.14.23	NO
								7,168,000					
							15,010,000	15,010,000	100%				
											ļ		
•	Moving A	head Wash	nington	İ	1	ľ							
_												12122	
<u> </u>	Zero Emis						7,000,000			0		4.21.23	YES
	After 2027-2	2029 bienniui	n										
•	Terry's Co		upport Fac	ility			310,000			0		4.21.23	YES
	In 2025-202	7 biennium											
						REQUEST	41,707,797		MATCH	11,346,	314		
	STATE &	FEDERΔΙ (GRANT PRO	TGRAMS T	ΉΔΤ ΙΣΙ ΔΝ	D TRANSIT DID NOT	MEET REQUIREMENTS	OR DID NOT SERVE T	HE				
		MISSION:	OIL-IIII IIII	JUNANIST	TIAT ISLAN	D HVANSH DID NOT	WILLT REGOINEWIEWS	ON DID NOT SERVE					
	/ / CEITE	11113313111											
	Prom	oting Resil	ient Opera	tions for T	ransformat	ive. Efficient, and Co	st-Saving Transportati	ion (PROTECT) Progra	m.				
						conomic Success (RC		(
							harging and Fueling Gr	rants (Community					
						nts (Corridor Prograr							
						elping IRTPO with ma							
	• Thriv	ing Commu	inities Grai	nt program	, , a. a. a. 1								
		emissions <i>i</i>							+				
	•and			. ,	•				+			+	
	†								+				
	FUNDIN	G TYPE KEY	,						+				
	S = State		-						+				
	F = Fede								-				
		solidated (s	tate & fed	eral)					-				
	4			,								1	

APPENDIX C

TRANSIT ASSET MANAGEMENT PLAN ASSET CONDITION DATA



TAM Plan Name: Clone of Island Transit TAMP

TAM Plan Type: Tier II
Agency Name: Island Transit
Account Executive Name: Todd Morrow
Last Modified Date: 04/28/2022

Introduction

Brief Overview

The Island County Public Transportation Benefit Area (PTBA), dba Island Transit, is a municipal corporation of the state of Washington and is governed by a Board of Directors composed of two Island County Commissioners, three appointed City Council members and a labor union representative. The agency has a staff of 114 employees including bus Operators and office staff, with an annual operating budget of \$14 M. Island Transit is the public transit agency providing fixed route, paratransit, and vanpool services on Camano and Whidbey islands, with connections to Skagit and Snohomish County. Island Transit is a fare free system that utilizes sales tax, often volatile, as the primary source of the agency's funding. This TAMP provides an outlay of how Island Transit will assess, monitor, and report the physical condition of assets utilized in the operation of the public transportation system. Island Transit's approach to manage the State of Good Repair for our assets includes the following activities; strategic and systematic process of operation, maintaining and improving physical assets, identify a structured sequence of maintenance, preservation of assets, repair, rehabilitation, and replacement actions.

Performance Targets & Measures

Agency Name	Asset Category	Asset Class	2022 Target	2023 Target	2024 Target	2025 Target	2026 Target	2027 Target
Island Transit	Equipment	Non Revenue/Service Automobile	67%					
Island Transit	Equipment	Other Rubber Tire Vehicles	89%					
Island Transit	Facilities	Administrative / Maintenance Facilities	0%					
Island Transit	Facilities	Passenger Facilities	0%					
Island Transit	Revenue Vehicles	BU - Bus	27%					
Island Transit	Revenue Vehicles	CU - Cutaway	11%					
Island Transit	Revenue Vehicles	MV - Minivan	42%					
Island Transit	Revenue Vehicles	VN - Van	67%					

Capital Asset Inventory

Asset Inventory Summary

Asset Category/Class	Total Number	Avg Age	Avg Mileage	Avg Replacement Cost/Value	Total Replacement Cost/Value
Revenue Vehicles	115	6.5	122,819	\$136,488.75	\$15,696,206.00
BU - Bus	16	10.1	343,153	\$498,750.00	\$7,980,000.00
CU - Cutaway Bus	45	5.2	109,603	\$136,822.22	\$6,157,000.00
MV - Mini-van	37	5.5	57,296	\$29,324.32	\$1,085,000.00
VN - Van	17	9.2	93,042	\$27,894.47	\$474,206.00
Equipment	50	15.0	N/A	\$30,086.12	\$1,504,306.00
Non Revenue/Service Automobile	6	9.3	N/A	\$29,896.33	\$179,378.00
Other Rubber Tire Vehicles	44	15.8	N/A	\$30,112.00	\$1,324,928.00
Facilities	8	12.4	N/A	\$0.00	\$0.00
Administration	2	12.0	N/A	\$0.00	\$0.00
Maintenance	3	9.0	N/A	\$0.00	\$0.00
Parking Structures	2	11.5	N/A	\$0.00	\$0.00
Passenger Facilities	1	25.0	N/A	\$0.00	\$0.00

Condition Assessment

Asset Category/Class	Total Number	Avg Age	Avg Mileage	Avg Replacement Cost/Value	EXHIBIT Total Replacement Cost/Value	A % At or Exceeds ULB	% of Track Miles in Slow Zone	Number of Facilities less than 3 on TERM scale
Revenue Vehicles	115	6.5	122,819	\$136,488.75	\$15,696,206.00	29%	N/A	N/A
BU - Bus	16	10.1	343,153	\$498,750.00	\$7,980,000.00	31%	N/A	N/A
CU - Cutaway Bus	45	5.2	109,603	\$136,822.22	\$6,157,000.00	22%	N/A	N/A
MV - Mini-van	37	5.5	57,296	\$29,324.32	\$1,085,000.00	19%	N/A	N/A
VN - Van	17	9.2	93,042	\$27,894.47	\$474,206.00	65%	N/A	N/A
Equipment	50	15.0	N/A	\$30,086.12	\$1,504,306.00	86%	N/A	N/A
Non Revenue/Service Automobile	6	9.3	N/A	\$29,896.33	\$179,378.00	67%	N/A	N/A
Other Rubber Tire Vehicles	44	15.8	N/A	\$30,112.00	\$1,324,928.00	89%	N/A	N/A
Facilities	8	12.4	N/A	\$0.00	\$0.00	N/A	N/A	0
Administration	2	12.0	N/A	\$0.00	\$0.00	N/A	N/A	0
Maintenance	3	9.0	N/A	\$0.00	\$0.00	N/A	N/A	0
Parking Structures	2	11.5	N/A	\$0.00	\$0.00	N/A	N/A	0
Passenger Facilities	1	25.0	N/A	\$0.00	\$0.00	N/A	N/A	0

Decision Support

Decision Support Tools

The following tools are used in making investment decisions:

Process/Tool	Brief Description
RTA Asset Management Software	A software suite supporting maintenance and asset management actions.
RouteMatch	A dispatching and operational management software suite that provides various transit related performance metrics.
Annual Strategic Planning	Annual meeting to establish and set goals related maintenance, operations, finance, administration, and all other departments that is conducted by the management team.
Funding Prioritization	Prioritize projects based on available or anticipated funding levels to achieve or maintain SGR goals.

Investment Prioritization

We do not have any planned investments needed to maintain a SGR. We are in the process of developing our zero emission transition plan and will begin infrastructure and vehicle replacement purchases that fall in line with that plan.

Proposed Investments

Project Name	Project Year	Asset Category	Asset Class	Cost	Priority	Updated Date
Fueling infrastructure for new zero emission vehicles	2024	Facilities	Fueling	\$1,000,000.00	High	

Signature

I, **Todd Morrow**, hereby certify on **10/11/2022** that the information provided in this TAM Plan is accurate, correct and complete.

ABC DEFGHIJKLMNOPQRS

Updated: January 2022

	Washington State Department of Transportation
--	--

Owned Rolling Stock Inventory and Verification of Continued Use Form

Revenue vehicles used in providing public transportation, including vehicles used for carrying passengers on fare-free services.

Refer to the instructions tab for vehicle codes.

8

Agency/org Island Transit Inventory year: 2021

11	No.	Year	Make/model	Vehicle code	Vehicle identification number (VIN)	Agency vehicle number	Actual life odometer	Meets financial needs of SGR? Yes/no	Is the vehicle safe? Yes/no	Agency's ULB (Year)	Agency's ULB (Miles)	Maintenance current? Yes/no	Performs its designed function? Yes/no	Replacement cost (\$)	ADA access? Yes/no	Seating capacity	Fuel type	WSDOT title? Yes/no
12	1	2003	GILLIG PHANTOM	2	15GCB201X31112209	118	604,674.3	No	Yes	14	585,000	Yes	Yes	\$450,000.00	Yes	35	BD	NO
13	2	2007	GILLIG PHANTOM	1	15GCD211071112850	119	507,905.4	Yes	Yes	14	585,000	Yes	Yes	\$460,000.00	Yes	43	BD	NO
14	3	2007	GILLIG PHANTOM	1	15GCD211271112851	120	548,239.0	Yes	Yes	14	585,000	Yes	Yes	\$460,000.00	Yes	43	BD	NO
15	4	2007	GILLIG PHANTOM	1	15GCD211671112853	122	612,770.2	Yes	Yes	14	585,000	Yes	Yes	\$460,000.00	Yes	43	BD	NO
16	5	2007	GILLIG PHANTOM	1	15GCD211871112854	123	595,633.1	Yes	Yes	14	585,000	Yes	Yes	\$460,000.00	Yes	43	BD	NO
17	6	2009	GILLIG LOWFLOOR	1	15GGD211891079441	124	570,955.2	Yes	Yes	14	585,000	Yes	Yes	\$460,000.00	Yes	37	BD	YES
18	7	2009	GILLIG LOWFLOOR	1	15GGD211X91079442	125	591,487.6	Yes	Yes	14	585,000	Yes	Yes	\$460,000.00	Yes	37	BD	No
19	8	2011	GILLIG LOWFLOOR	1	15GGD2714B1178545	126	468,958.5	Yes	Yes	14	585,000	Yes	Yes	\$460,000.00	Yes	37	BD	YES
20	9	2011	GILLIG LOWFLOOR	1	15GGD2716B1178546	127	467,054.0	Yes	Yes	14	585,000	Yes	Yes	\$460,000.00	Yes	37	BD	YES
21	10	2011	GILLIG LOWFLOOR	1	15GGD2718B1178547	128	423,425.0	Yes	Yes	14	585,000	Yes	Yes	\$460,000.00	Yes	37	BD	YES
22	11	2011	GILLIG LOWFLOOR	1	15GGD271XB1178548	129	431,403.0	Yes	Yes	14	585,000	Yes	Yes	\$460,000.00	Yes	37	BD	YES
23	12	2019	GILLIG LOWFLOOR	3	15GGE2711K3093485	130	55,935.0	Yes	Yes	14	585,000	Yes	Yes	\$477,203.00	Yes	26	BD	YES
24	13	2019	GILLIG LOWFLOOR	3	15GGE2713K3093486	131	61,612.0	Yes	Yes	14	585,000	Yes	Yes	\$477,203.00	Yes	26	BD	YES
25	14	2020	GILLIG LOWFLOOR Hybrid	1	15GGD301XL3195355	132	61,259.0	Yes	Yes	14	585,000	Yes	Yes	\$635,000.00	Yes	28	HB/BD	YES
26	15	2020	GILLIG LOWFLOOR Hybrid	1	15GGD3011L3195356	133	44,023.0	Yes	Yes	14	585,000	Yes	Yes	\$635,000.00	Yes	28	HB/BD	YES
27	16	2020	GILLIG LOWFLOOR Hybrid	1	15GGB3016L3195357	134	40,752.0	Yes	Yes	14	585,000	Yes	Yes	\$635,000.00	Yes	28	HB/BD	YES
28	17	2021	GILLIG LOWFLOOR	3	15GGE2716M3093873	135	1,023.0	Yes	Yes	14	585,000	Yes	Yes	\$530,000.00	Yes	26	BD	YES
29	18	2021	GILLIG LOWFLOOR	3	15GGE2718M3093874	136	1,055.0	Yes	Yes	14	585,000	Yes	Yes	\$530,000.00	Yes	26	BD	YES
30	19	2009	GOSHEN CHEVY GCII	11	1GBE4V1939F407989	250	579,242.0	No	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	21	BD	NO
31	20	2009	GOSHEN CHEVY GCII	11	1GBE4V1969F407761	259	545,187.0	No	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	21	BD	NO

	В	С	D	Е	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S
32	21	2019	Ford Glaval Universal	11	1FDFE4FSXKDC51370	265	37,359.0	Yes	Yes	10	200,000	Yes	Yes	\$124,736.00	Yes	21	PRO	Yes
33	22	2019	Ford Glaval Universal	11	1FDFE4FS2KDC51315	266	44,650.0	Yes	Yes	10	200,000	Yes	Yes	\$124,736.00	Yes	21	PRO	Yes
34	23	2019	Ford Glaval Universal	11	1FDFE4FS0KDC51314	267	47,183.0	Yes	Yes	10	200,000	Yes	Yes	\$124,736.00	Yes	21	PRO	Yes
35	24	2019	Ford Glaval Universal	11	1FDFE4FS4KDC51316	268	35,362.0	Yes	Yes	10	200,000	Yes	Yes	\$124,736.00	Yes	21	PRO	Yes
36	25	2019	Ford Glaval Unive⁻rsal	11	1FDFE4FS5KDC51325	269	38,598.0	Yes	Yes	10	200,000	Yes	Yes	\$124,736.00	Yes	21	PRO	Yes
37	26	2013	INTERNATIONAL AC SERIES	11	4DRXWSKK8DH302467	411	109,740.0	No	No	10	300,000	Yes	No	\$157,920.00	Yes	27	BD	NO
38	27	2018	Freightliner SC2 Glaval Legacy	11	4UZADRFD5JCJM3139	413	176,276.0	Yes	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	25	BD	YES
39	28	2018	Freightliner SC2 Glaval Legacy	11	4UZADRFD1JCJM3140	414	197,327.0	Yes	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	25	BD	YES
40	29	2018	Freightliner SC2 Glaval Legacy	11	4UZADRFD3JCJM3141	415	183,423.0	Yes	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	25	BD	YES
41	30	2018	Freightliner SC2 Glaval Legacy	11	4UZADRFD5JCJM3142	416	190,910.0	Yes	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	25	BD	YES
42	31	2018	Freightliner SC2 Glaval Legacy	11	4UZADRFDXJCJU8594	417	159,367.0	Yes	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	25	BD	YES
43	32	2018	Freightliner SC2 Glaval Legacy	11	4UZADRFD1JCJU8595	418	107,009.0	Yes	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	25	BD	YES
44	33	2018	Freightliner SC2 Glaval Legacy	11	4UZADRFD3JCJU8596	419	85,136.0	Yes	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	25	BD	YES
45	34	2018	Freightliner SC2 Glaval Legacy	11	4UZADRFD5JCJU8597	420	120,578.0	Yes	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	25	BD	YES
46	35	2018	Freightliner SC2 Glaval Legacy	11	4UZADRFD7JCJU8598	421	93,973.0	Yes	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	25	BD	YES
47	36	2018	Freightliner SC2 Glaval Legacy	11	4UZADRFD9JCJU8599	422	105,733.0	Yes	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	25	BD	YES
48	37	2018	Freightliner SC2 Glaval Legacy	11	4UZADRFD1JCJU8600	423	146,243.0	Yes	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	25	BD	YES
49	38	2018	Freightliner SC2 Glaval Legacy	11	4UZADRFD3JCJU8601	424	109,459.0	Yes	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	25	BD	YES
50	39	2018	Freightliner SC2 Glaval Legacy	11	4UZADRFD5JCJU8602	425	104,481.0	Yes	Yes	10	300,000	Yes	Yes	\$157,920.00	Yes	25	BD	YES
51	40	2019	Freightliner SC2 Glaval Legacy	11	4UZADRFD2KCLH4464	426	105,314.0	Yes	Yes	10	300,000	Yes	Yes	\$165,582.00	Yes	25	BD	YES
52	41	2019	Freightliner SC2 Glaval Legacy	11	4UZADRFD4KCLH4465	427	117,728.0	Yes	Yes	10	300,000	Yes	Yes	\$165,582.00	Yes	25	BD	YES
53	42	2019	Freightliner SC2 Glaval Legacy	11	4UZADRFD6KCLH4466	428	110,695.0	Yes	Yes	10	300,000	Yes	Yes	\$165,582.00	Yes	25	BD	YES
54	43	2019	Freightliner SC2 Glaval Legacy	11	4UZADRFD8KCLH4467	429	97,888.0	Yes	Yes	10	300,000	Yes	Yes	\$165,582.00	Yes	25	BD	YES
55	44	2019	Freightliner SC2 Glaval Legacy	11	4UZADRFDXKCLH4468	430	94,525.0	Yes	Yes	10	300,000	Yes	Yes	\$165,582.00	Yes	25	BD	YES
56	45	2019	Freightliner SC2 Glaval Legacy	11	4UZADRFD1KCLH4469	431	99,715.0	Yes	Yes	10	300,000	Yes	Yes	\$165,582.00	Yes	25	BD	YES
57	46	2019	Freightliner SC2 Glaval Legacy	11	4UZADRFD8KCLH4470	432	89,383.0	Yes	Yes	10	300,000	Yes	Yes	\$165,582.00	Yes	25	BD	YES
58	47	2012	Goshen Chevy Pacer II	11	1GB3GCBG0C1175432	505	193,949.0	Yes	Yes	10	200,000	Yes	Yes	\$80,000.00	Yes	8	G	NO
59	48	2012	Goshen Chevy Pacer II	11	1GB3G2BGXC1176698	512	205,698.0	Yes	Yes	10	200,000	Yes	Yes	\$80,000.00	Yes	8	G	NO
60	49	2012	Goshen Chevy Pacer II	11	1GB3G2BG5C1177483	514	210,032.0	Yes	Yes	10	200,000	Yes	Yes	\$80,000.00	Yes	8	G	NO
61	50	2018	Goshen Chevy Pacer II	11	1HA3GRBG0HN006043	515	90,350.0	Yes	Yes	10	200,000	Yes	Yes	\$80,000.00	Yes	8	G	YES
62	51	2018	Goshen Chevy Pacer II	11	1HA3GRBGXHN006356	516	79,430.0	Yes	Yes	10	200,000	Yes	Yes	\$80,000.00	Yes	8	G	YES
63	52	2018	Goshen Chevy Pacer II	11	1HA3GRGB1HN006388	517	47,193.0	Yes	Yes	10	200,000	Yes	Yes	\$80,000.00	Yes	8	G	YES
64	53	2018	Goshen Chevy Pacer II	11	1HA3GRBGXHN006308	518	80,873.0	Yes	Yes	10	200,000	Yes	Yes	\$80,000.00	Yes	8	G	YES
65	54	2018	Goshen Chevy Pacer II	11	1HA3GRBG3HN006456	519	80,669.0	Yes	Yes	10	200,000	Yes	Yes	\$80,000.00	Yes	8	G	YES
66	55	2019	Eldorado AeroTech	11	1FDFE4FS7KDC65310	520	11,498.0	Yes	Yes	10	200,000	Yes	Yes	\$116,540.00	Yes	8	PRO	YES
67	56	2019	Eldorado AeroTech	11	1FDFE4FS9KDC65311	521	13,216.0	Yes	Yes	10	200,000	Yes	Yes	\$116,540.00	Yes	8	PRO	YES
68	57	2019	Eldorado AeroTech	11	1FDFE4FS0KDC65312	522	12,716.0	Yes	Yes	10	200,000	Yes	Yes	\$116,540.00	Yes	8	PRO	YES

/	В	С	D	Е	F	G	Н	I	J	K	L	М	N	0	Р	Q	R	S
69	58	2019	Eldorado AeroTech	11	1FDFE4FS2KDC65313	523	12,552.0	Yes	Yes	10	200,000	Yes	Yes	\$116,540.00	Yes	8	PRO	YES
70	59	2019	Eldorado AeroTech	11	1FDFE4FS4KDC65314	524	13,177.0	Yes	Yes	10	200,000	Yes	Yes	\$116,540.00	Yes	8	PRO	YES
71	60	2019	Eldorado AeroTech	11	1FDFE4FS6KDC65315	525	10,637.0	Yes	Yes	10	200,000	Yes	Yes	\$116,540.00	Yes	8	PRO	YES
72	61	2019	Eldorado AeroTech	11	1FDFE4FS8KDC65316	526	11,285.0	Yes	Yes	10	200,000	Yes	Yes	\$116,540.00	Yes	8	PRO	YES
73	62	2019	Eldorado AeroTech	11	1FDFE4FSXKDC65317	527	13,216.0	Yes	Yes	10	200,000	Yes	Yes	\$116,540.00	Yes	8	PRO	YES
74	63	2019	Eldorado AeroTech	11	1FDFE4FS1KDC65318	528	11,666.0	Yes	Yes	10	200,000	Yes	Yes	\$116,540.00	Yes	8	PRO	YES
75	64	2019	Eldorado AeroTech	11	1FDFE4FS3KDC65319	529	11,243.0	Yes	Yes	10	200,000	Yes	Yes	\$116,540.00	Yes	8	PRO	YES
76	65	2010	DODGE CARAVAN	13	2D4RN5D10AR205902	783	111,665.0	No	Yes	8	150,000	Yes	Yes	\$24,018.00	No	7	G	NO
77	66	2011	DODGE CARAVAN	13	2D4RN4DG2BR652752	784	107,000.0	No	Yes	8	150,000	Yes	Yes	\$24,018.00	No	6	G	NO
78	67	2011	DODGE CARAVAN	13	2D4RN4DG4BR652753	787	121,968.0	No	Yes	8	150,000	Yes	Yes	\$24,018.00	No	6	G	NO
79	68	2011	DODGE CARAVAN	13	2D4RN4DG0BR652751	788	120,332.0	No	Yes	8	150,000	Yes	Yes	\$24,018.00	No	6	G	NO
80	69	2011	DODGE CARAVAN	13	2D4RN4DGXBR652756	792	105,015.0	No	Yes	8	150,000	Yes	Yes	\$24,018.00	No	6	G	NO
81	70	2011	FORD CLUB WAGON	13	1FBNE3BL0BDA56228	797	111,304.0	No	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
82	71	2011	FORD CLUB WAGON	13	1FBNE3BL3BDA56224	799	119,725.0	No	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
83	72	2011	FORD CLUB WAGON	13	1FBSS3BL8BDA56229	800	113,756.0	No	Yes	8	150,000	Yes	Yes	\$26,206.00	No	15	G	NO
84	73	2011	FORD CLUB WAGON	13	1FBSS3BL4BDA56230	801	91,339.0	No	Yes	8	150,000	Yes	Yes	\$26,206.00	No	15	G	NO
85	74	2013	DODGE CARAVAN	13	2C4RDGBG5DR656169	802	83,446.0	Yes	Yes	8	150,000	Yes	Yes	\$24,018.00	No	7	G	NO
86	75	2013	DODGE CARAVAN	13	2C4RDGBG3DR656171	804	127,977.0	Yes	Yes	8	150,000	Yes	Yes	\$24,018.00	No	7	G	NO
87	76	2013	FORD CLUB WAGON	13	1FBNE3BL6DDA43776	805	99,969.0	Yes	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
88	77	2013	FORD CLUB WAGON	13	1FBNE3BLXDDA43778	806	96,095.0	Yes	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
89	78	2013	FORD CLUB WAGON	13	1FBNE3BL61DA43779	807	84,719.0	Yes	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
90	79	2013	FORD CLUB WAGON	13	1FBNE3BL8DDA43780	808	117,137.0	Yes	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
91	80	2013	FORD CLUB WAGON	13	1FBNE38L8DDA43777	809	102,264.0	Yes	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
92	81	2013	FORD CLUB WAGON	13	1FBNE3BL4DDA43775	810	86,373.0	Yes	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
93	82	2016	FORD TRANSIT	13	1FBZX2YM3GKB10954	811	70,077.0	Yes	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
94	83	2016	FORD TRANSIT	13	1FBZX2YM5GKB10955	812	51,827.0	Yes	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
95	84	2016	FORD TRANSIT	13	1FBZX2YM7GKB10956	813	63,606.0	Yes	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
96	85	2016	FORD TRANSIT	13	1FBZX2YM9GKB10957	814	89,526.0	Yes	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
97	86	2016	FORD TRANSIT	13	1FBZX2YM0GKB10958	815	56,250.0	Yes	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
98	87	2016	FORD TRANSIT	13	1FBZX2YM2GKB10959	816	67,050.0	Yes	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO
99	88	2016	DODGE CARAVAN	13	2C4RDGCG5GR345019	817	90,866.0	Yes	Yes	8	150,000	Yes	Yes	\$24,018.00	No	7	G	NO
100	89	2016	DODGE CARAVAN	13	2C4RDGCG1GR345020	818	74,764.0	Yes	Yes	8	150,000	Yes	Yes	\$24,018.00	No	7	G	NO
101	90	2016	DODGE CARAVAN	13	2C4RDGCG3GR345021	819	68,083.0	Yes	Yes	8	150,000	Yes	Yes	\$24,018.00	No	7	G	NO
102	91	2016	DODGE CARAVAN	13	2C4RDGCG5GR345022	820	65,125.0	Yes	Yes	8	150,000	Yes	Yes	\$24,018.00	No	7	G	NO
103	92	2016	DODGE CARAVAN	13	2C4RDGCG7GR345023	821	48,562.0	Yes	Yes	8	150,000	Yes	Yes	\$24,018.00	No	7	G	NO
104	93	2016	DODGE CARAVAN	13	2C4RDGCG9GR345024	822	49,761.0	Yes	Yes	8	150,000	Yes	Yes	\$24,018.00	No	7	G	NO
105	94	2017	DODGE CARAVAN	13	2C4RDGBG4HR687614	823	34,451.0	Yes	Yes	8	150,000	Yes	Yes	\$24,018.00	No	7	G	YES

<i>-</i>	ΔВ	С	D	Е	F	G	Н	I	J	K	L	M	N	0	Р	Q	R	S
106	95	2017	DODGE CARAVAN	13	2C4RDGBG6HR687615	824	24,105.0	Yes	Yes	8	150,000	Yes	Yes	\$24,018.00	No	7	G	YES
107	96	2018	CHRYSLER PACIFICA	13	2C4RC1AG2JR253246	825	50,691.0	Yes	Yes	8	150,000	Yes	Yes	\$26,380.00	No	7	G	YES
108	97	2018	CHRYSLER PACIFICA	13	2C4RC1AG3JR255426	826	68,670.0	Yes	Yes	8	150,000	Yes	Yes	\$26,380.00	No	7	G	YES
109	98	2018	CHRYSLER PACIFICA	13	2C4RC1AG5JR255427	827	35,075.0	Yes	Yes	8	150,000	Yes	Yes	\$26,380.00	No	7	G	YES
110	99	2018	CHRYSLER PACIFICA	13	2C4RC1AG7JR255428	828	22,028.0	Yes	Yes	8	150,000	Yes	Yes	\$26,380.00	No	7	G	YES
111	100	2018	CHRYSLER PACIFICA	13	2C4RC1AG9JR255429	829	21,292.0	Yes	Yes	8	150,000	Yes	Yes	\$26,380.00	No	7	G	YES
112		2018	CHRYSLER PACIFICA	13	2C4RC1AG5JR255430	830	65,284.0	Yes	Yes	8	150,000	Yes	Yes	\$26,380.00	No	7	G	YES
113		2018	CHRYSLER PACIFICA	13	2C4RC1AG7JR255431	831	30,116.0	Yes	Yes	8	150,000	Yes	Yes	\$26,380.00	No	7	G	YES
114		2018	CHRYSLER PACIFICA	13	2C4RC1AG9JR255432	832	23,575.0	Yes	Yes	8	150,000	Yes	Yes	\$26,380.00	No	7	G	YES
115		2018	CHRYSLER PACIFICA	13	2C4RC1AG0JR255433	833	80,030.0	Yes	Yes	8	150,000	Yes	Yes	\$26,380.00	No	7	G	YES
116	ľ	2018	CHRYSLER PACIFICA	13	2C4RC1AG2JR255434	834	54,867.0	Yes	Yes	8	150,000	Yes	Yes	\$26,380.00	No	7	G	YES
117	ľ	2018	CHRYSLER PACIFICA	13	2C4RC1AG4JR255435	835	65,450.0	Yes	Yes	8	150,000	Yes	Yes	\$26,380.00	No	7	G	YES
118	ľ	2018	CHRYSLER PACIFICA	13	2C4RC1AG6JR355908	836	42,086.0	Yes	Yes	8	150,000	Yes	Yes	\$26,410.00	No	7	G	YES
119	ľ	2018	CHRYSLER PACIFICA	13	2C4RC1AG8JR355909	837	66,448.0	Yes	Yes	8	150,000	Yes	Yes	\$26,410.00	No	7	G	YES
120	ľ	2018	CHRYSLER PACIFICA	13	2C4RC1AG4JR355910	838	34,992.0	Yes	Yes	8	150,000	Yes	Yes	\$26,410.00	No	7	G	YES
121	ľ	2018	CHRYSLER PACIFICA	13	2C4RC1AG6JR355911	839	69,153.0	Yes	Yes	8	150,000	Yes	Yes	\$26,410.00	No	7	G	YES
122	ľ	2018	CHRYSLER PACIFICA	13	2C4RC1AG8JR355912	840	34,604.0	Yes	Yes	8	150,000	Yes	Yes	\$26,410.00	No	7	G	YES
123	ľ	2018	CHRYSLER PACIFICA	13	2C4RC1AGXJR355913	841	31,283.0	Yes	Yes	8	150,000	Yes	Yes	\$26,410.00	No	7	G	YES
124		2019	CHEVY EXPRESS VAN	13	1GAWGFFG9K1309033	842	11,142.0	Yes	Yes	8	150,000	Yes	Yes	\$35,008.00	No	12	G	YES
125		2019	CHEVY EXPRESS VAN	13	1GAWGFFG9K1309324	843	5,335.0	Yes	Yes	8	150,000	Yes	Yes	\$35,008.00	No	12	G	YES
126	j	2019	CHEVY EXPRESS VAN	13	1GAWGFFG1K1310676	844	45,739.0	Yes	Yes	8	150,000	Yes	Yes	\$35,008.00	No	12	G	YES
127	j	2019	CHEVY EXPRESS VAN	13	1GAWGFFG8K1311128	845	20,418.0	Yes	Yes	8	150,000	Yes	Yes	\$35,008.00	No	12	G	YES
128	j	2019	CHEVY EXPRESS VAN	13	1GAWGFFG4K1311210	846	8,582.0	Yes	Yes	8	150,000	Yes	Yes	\$35,008.00	No	12	G	YES
129		2006	FORD CLUB WGN	13	1FBNE31L36HB31553	RL2	160,707.0	No	Yes	8	150,000	Yes	Yes	\$26,206.00	No	12	G	NO

Owned Equipment Inventory Form

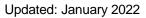
Support vehicles and equipment with an acquisition value greater than \$50,000.

Refer to the instructions tab for equipment code.

Agency/org:	Island Transit	Inventory year:	2021

No.	Eqpmt. Code	Equipment description	Condition (points)	Age (years)	Remaining useful life (years)	Replacement cost (\$)	Comments
1	5	2003 FORD PICKUP	3	19	0	\$80,000.00	
2	5	2008 DODGE PICKUP	4	14	0	\$60,000.00	
3	5	2005 FREIGHTLINER TRACTOR	3	17	0	\$150,000.00	
4	5	1999 FORD PICKUP	2	23	0	\$60,000.00	
5	5	2018 Ford Transit	5	4	4	\$63,473.00	
6	5	2009 Trail King	4	13	1	\$75,000.00	
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16							

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Owned Facility Inventory Form

Facilities with a replacement val	lue of \$25,000 or greater.
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Refer to instructions for facility code.

Agency/org: Island T	ransit	Inventory year:	2021

No.	Facility code	Facility name	Condition (points)	Age (year)	Remaining useful life	Replacement cost (\$)	Comments
1	23	Ops/Admin Building Coupeville	4	9	21	\$7,500,000	
2	11	Maintenance Building Coupeville	4	9	21	\$12,000,000	
3	21	Fuel Building Coupeville	4	9	21	\$4,000,000	
4	21	Wash Building Coupeville	3	9	21	\$4,000,000	
5	6	Harbor Station	3	25	15	\$3,000,000	
6	23	Camano Station	4	15	25	\$3,000,000	
7	9	Prairie Station, Coupeville	4	11	29	\$2,000,000	
8	9	Noble Creek Park & Ride, Langley	4	12	28	\$2,000,000	
9							
10							
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15							
16							

APPENDIX D

ROUTE MAPS

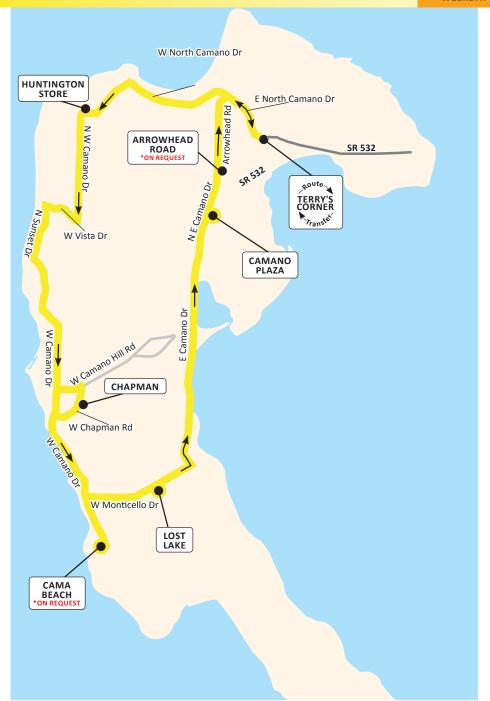
	ROU	TE 1	EXHI	l VV	est C NDA	amar Y-FRII	no DAY)
Depart Terry's Corner	Huntington Store	Chapman	Cama Beach	Lost Lake	Camano Plaza	Arrowhead Road	Terry's Corner
4:45	4:51	5:02	5:05	5:11	5:20	5:22	5:30
5:45	5:51	6:02	6:05	6:11	6:20	6:22	6:30
6:45	6:51	7:02	7:05	7:11	7:20	7:22	7:30
7:45	7:51	8:02	8:05	8:11	8:20	8:22	8:30
8:45	8:51	9:02	9:05	9:11	9:20	9:22	9:30
9:45	9:51	10:02	10:05	10:11	10:20	10:22	10:30
10:15	10:21	10:32	10:35	10:41	10:50	10:52	11:00
10:45	10:51	11:02	11:05	11:11	11:20	11:22	11:30
11:45	11:51	12:02	12:05	12:11	12:20	12:22	12:30
12:00	12:06	12:17	12:20	12:26	12:35	12:37	12:45
12:45	12:51	1:02	1:05	1:11	1:20	1:22	1:30
1:45	1:51	2:02	2:05	2:11	2:20	2:22	2:30
2:45	2:51	3:02	3:05	3:11	3:20	3:22	3:30
3:45	3:51	4:02	4:05	4:11	4:20	4:22	4:30
4:45	4:51	5:02	5:05	5:11	5:20	5:22	5:30
5:45	5:51	6:02	6:05	6:11	6:20	6:22	6:30
6:45	6:51	7:02	7:05	7:11	7:20	7:22	7:30
7:40	D	D	D	D	D	D	D

Bold type denotes PM times Red Text denotes service on request.

D - Service is drop only.

Camano Center - Service on request. Call 3എ-38778433, to request pickup.

WEEKDAY



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	ROU	TE 2	EXHI	BIT Æ; (MO	ast Ca NDA	aman Y-FRII	ODAY)
Depart Terry's Corner	Camano Plaza	Windermere	Shuksan	Elger Bay Store	Camano Plaza	Arrowhead Rd	Terry's Corner
4:45	4:47	4:55	5:03	5:11	5:20	5:22	5:30
5:45	5:47	5:55	6:03	6:11	6:20	6:22	6:30
6:45	6:47	6:55	7:03	7:11	7:20	7:22	7:30
7:45	7:47	7:55	8:03	8:11	8:20	8:22	8:30
8:15	8:17	8:25	8:33	8:41	8:50	8:52	9:00
8:45	8:47	8:55	9:03	9:11	9:20	9:22	9:30
9:45	9:47	9:55	10:03	10:11	10:20	10:22	10:30
10:45	10:47	10:55	11:03	11:11	11:20	11:22	11:30
11:45	11:47	11:55	12:03	12:11	12:20	12:22	12:30
12:00	12:02	12:10	12:18	12:26	12:35	12:37	12:45
12:45	12:47	12:55	1:03	1:11	1:20	1:22	1:30
1:45	1:47	1:55	2:03	2:11	2:20	2:22	2:30
2:45	2:47	2:55	3:03	3:11	3:20	3:22	3:30
3:45	3:47	3:55	4:03	4:11	4:20	4:22	4:30
4:45	4:47	4:55	5:03	5:11	5:20	5:22	5:30
5:45	5:47	5:55	6:03	6:11	6:20	6:22	6:30
6:45	6:47	6:55	7:03	7:11	7:20	7:22	7:30
7:40	D	D	D	D	D	D	D

Bold type denotes PM times. Red Text denotes service on request.

D - Service is drop only.

Tyee Store Deviation On Request after Shuksan.

Camano Center - Service on request. Call $\frac{360}{400}$ $\frac{387}{103}$ $\frac{7}{103}$ 433, to request pickup.

ROUTE 2 - EASTHORIMANO

WEEKDAY



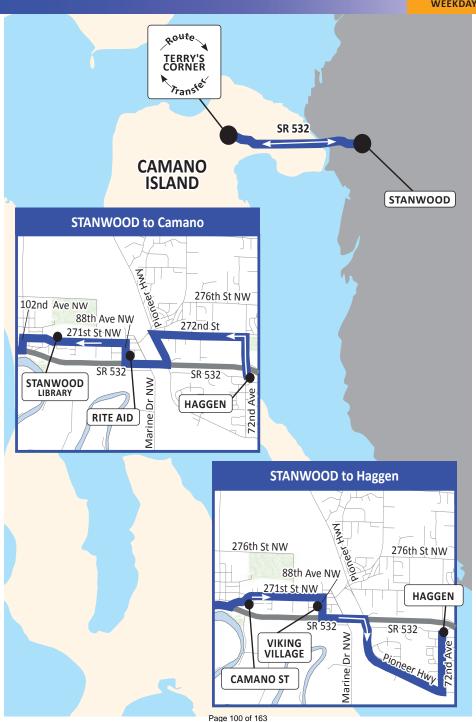
EXHIBIE 8

Camano to/from Stanwood

(MONDAY-FRIDAY)									
Depart Terry's Corner	Camano St	Viking Village	Haggen	Rite Aid	Stanwood Library	Terry's Corner			
To Stanwood To Camano									
4:45	4:50	4:55	5:00	5:07	5:10	5:25			
5:45	5:50	5:55	6:00	6:07	6:10	6:25			
6:45	6:50	6:55	7:00	7:07	7:10	7:25			
7:45	7:50	7:55	8:00	8:07	8:10	8:25			
8:45	8:50	8:55	9:00	9:07	9:10	9:25			
9:15	9:20	9:25	9:30	9:37	9:40	9:55			
9:45	9:50	9:55	10:00	10:07	10:10	10:25			
10:45	10::50	10:55	11:00	11:07	11:10	11:25			
11:15	11:20	11:25	11:30	11:37	11:40	11:55			
11:45	11:50	11:55	12:00	12:07	12:10	12:25			
12:45	12:50	12:55	1:00	1:07	1:10	1:25			
1:45	1:50	1:55	2:00	2:07	2:10	2:25			
2:45	2:50	2:55	3:00	3:07	3:10	3:25			
3:45	3:50	3:55	4:00	4:07	4:10	4:25			
4:45	4:50	4:55	5:00	5:07	5:10	5:25			
5:45	5:50	5:55	6:00	6:07	6:10	6:25			
6:45	6:50	6:55	7:00	7:07	7:10	7:25			

ROUTE 3 - CAMANEXHIBSTANWOOD

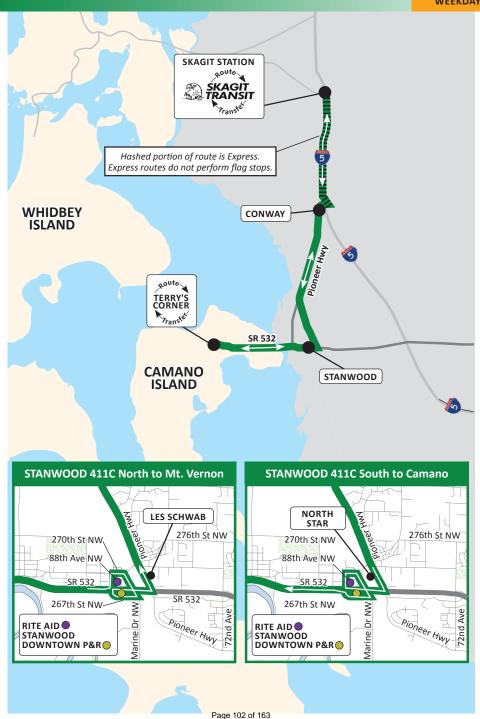
WEEKDAY



ROUTE 411EXHI NORTHBOUND				. 141	Juiit	Y-FRI	DAY)
		=				SKAGIT	TRANSIT
Depart Terry's Corner	Rite Aid	Stanwood P&R II	Les Schwab	Conway	Skagit Station	40X Depart Skagit Station	40X Arrive March's Pt P&R
5:30	5:40	5:41	5:43	5:53	6:05	7:15	7:40
7:30	7:40	7:41	7:43	7:53	8:05	8:15	8:40
9:40	9:50	9:51	9:53	10:03	10:15	11:15	11:40
1:30	1:40	1:41	1:43	1:53	2:05	2:15	2:40
3:30	3:40	3:41	3:43	3:53	4:05	4:15	4:40
5:30	5:40	5:41	5:43	5:53	6:05	6:15	6:40
6:30	6:40	6:41	6:43	6:53	7:05	7:15	7:40

ROUTE 411C SOUTHBOUND				Mount Vernon to Camano (MONDAY-FRIDAY)			
SKAGIT	TRANSIT					_	
40X Depart March's Pt P&R	40X Arrive Skagit Station	Depart Skagit Station	Conway	North Star	Rite Aid	Stanwood P&R II	Terry's Corner
		6:10	6:20	6:28	6:30	6:31	6:40
7:40	8:00	8:10	8:20	8:28	8:30	8:31	8:40
9:40	10:00	10:20	10:30	10:38	10:40	10:41	10:50
1:40	2:00	2:10	2:20	2:28	2:30	2:31	2:40
3:40	4:00	4:10	4:20	4:28	4:30	4:31	4:40
		6:10	6:20	6:28	6:30	6:31	6:40
6:40	7:00	7:10	7:20	7:28	7:30	7:31	7:40

WEEKDAY



ROUTE 4125 BUTHBOUND								
Camano to Everett (MONDAY-FRIDAY)								
Depart Terry's Corner Rite Aid Stanwood P&R II I-5 P&R EVCC Tower at Broadway Everett Station								
5:45	5:50	5:51	6:00	6:20	6:35			
6:30	6:35	7:05	7:20					
1:00	1:05	1:06	1:15	1:35	1:50			
3:30	3:35	3:36	3:45	4:05	4:20			
4:45	4:50	4:51	5:00	5:20	5:35			

ROUTE 412 NORTHBOUND								
Everett to Camano (MONDAY-FRIDAY)								
Everett Station EVCC Tower at Broadway I-5 P&R Rite Aid Stanwood P&R II								
6:45	6:55	7:10	7:17	7:18	7:30			
7:30	7:40	7:55	8:02	8:03	8:15			
2:00	2:10 2:25 2:32 2:33 3:00							
4:30	4:40	4:55	5:02	5:03	5:30			
5:45	5:55	6:10	6:17	6:18	6:40			

Bold type denotes PM times

Red Text denotes service on request. Call Route Information (360-387-7433) to request pickup. Page 103 of 163

WEEKDAY



ROUTE 1 EXHIBIT A West Camano (SATURDAY & SUNDAY)								
Depart Terry's Corner	Huntington Store	Chapman	Cama Beach	Lost Lake	Camano Plaza	Arrowhead Road	Terry's Corner	
*	*	*	*	*	*	*	8:30	
8:45	8:51	9:02	9:05	9:11	9:20	9:22	9:30	
		NO V	VEST BU	S THIS F	HOUR			
10:45	10:51	11:02	11:05	11:11	11:20	11:22	11:30	
11:45	11:51	12:02	12:05	12:11	12:20	12:22	12:30	
12:45	12:51	1:02	1:05	1:11	1:20	1:22	1:30	
1:45	1:51	2:02	2:05	2:11	2:20	2:22	2:30	
2:45	2:51	3:02	3:05	3:11	3:20	3:22	3:30	
3:45	3:51	4:02	4:05	4:11	4:20	4:22	4:30	
5:10	D	D	D	D	D	D	D	

Bold type denotes PM times

Red Text denotes service on request. Call Route Information, 360-387-7433, to request pickup.

D - Service is Drop Only.

^{*}Service provided anywhere along the route by appointment only. Must call Route Information, at 360-387-7433, by 3:00 pm the day before to schedule pick up. Route provides "pick up" service anywhere along path op poff at Terry's Corner only.

ROUTE 1 - WESTHEATMANO

WEEKEND



ROUTE 2 EXHIBIT (Camano (SATURDAY & SUNDAY)							
Depart Terry's Corner	Camano Plaza	E Camano Dr & Elger Bay Rd	Shuksan Rd	Elger Bay Store	Camano Plaza	Arrowhead Road	Terry's Corner
*	*	*	*	*	*	*	8:30
8:45	8:47	8:55	9:03	9:11	9:20	9:22	9:30
9:45	9:47	9:55	10:03	10:11	10:20	10:22	10:30
10:45	10:47	10:55	11:03	11:11	11:20	11:22	11:30
11:45	11:47	11:55	12:03	12:11	12:20	12:22	12:30
12:45	12:47	12:55	1:03	1:11	1:20	1:22	1:30
		NO E	AST BU	S THIS H	IOUR		
2:45	2:47	2:55	3:03	3:11	3:20	3:22	3:30
3:45	3:47	3:55	4:03	4:11	4:20	4:22	4:30
5:10	D	D	D	D	D	D	D

Bold type denotes PM times

Red Text denotes service on request. Call Route Information, 360-387-7433, to request pickup.

D - Service is Drop Only.

Tyee Store Deviation On Request after Shuksan.

*Service provided anywhere along the route by appointment only. Must call Route Information, at 360-387-7433, by 3:00 pm the day before to schedule pick up. Route provides "pick up" service anywhere along path. Drop off at Terry's Corner only.

ROUTE 2 - EASTHORIMANO

WEEKEND



Camano to/from Stanwood (SATURDAY & SUNDAY)											
Depart Terry's Corner Camano Street Viking Village Haggen Rite Aid Stanwood Library Terry's Corner											
	To Star	nwood		To	o Caman	10					
9:45	9:50	9:55	10:00	10:07	10:10	10:25					
10:45	10:50	10:55	11:00	11:07	11:10	11:25					
11:45	11:50	11:55	12:00	12:07	12:10	12:25					
1:45	1:50	1:55	2:00	2:07	2:10	2:25					
2:45	2:50	2:55	3:00	3:07	3:10	3:25					

ROUTE 3 - CAMANEXHIBSTANWOOD

WEEKEND



	OUTI RTH		.C	Camano to Mount Vernon (SATURDAY ONLY)					
Depart Terry's Corner	Camano St	Viking Village	Haggen	272nd & Pioneer Hwy	Conway	Skagit Station	40X Depart Skagit Station	40X Arrive March's Pt P&R	
8:30	8:35	8:40	8:45	8:48	9:00	9:10	9:15	9:40	
12:30	12:35	12:40	12:45	12:48	1:00	1:10	1:15	1:40	
3:30	3:35	3:40	3:45	3:48	4:00	4:10	4:15	4:40	
		Skagit	Transit						

		E 411 BOU	_	Mount Vernon to Camano (SATURDAY ONLY)					
40X Depart March's Pt P&R	40X Arrive Skagit Station	Depart Skagit Station	Conway	North Star	Haggen	Rite Aid	Stanwood Library	Terry's Corner	
8:40	9:00	9:25	9:30	9:40	9:45	9:50	9:53	10:10	
12:40	1:00	1:25	1:30	1:40	1:45	1:50	1:53	2:10	
3:40 4:00 4:25 4:30				4:40	4:45	4:50	4:53	5:10	
Skagit	Transit								

SATURDAY ONLY

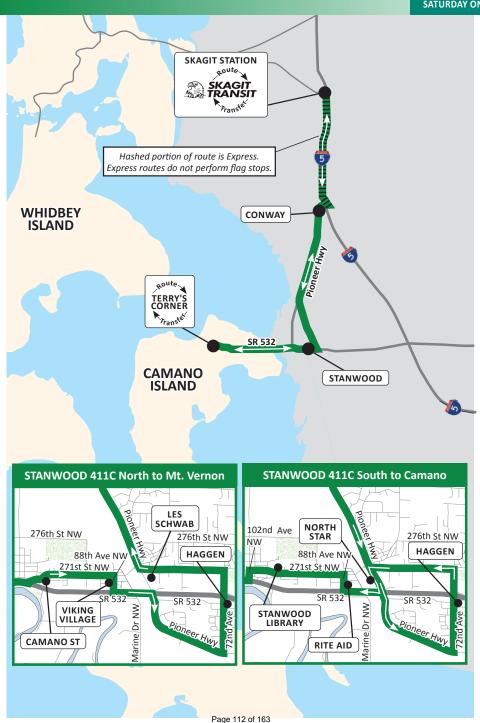
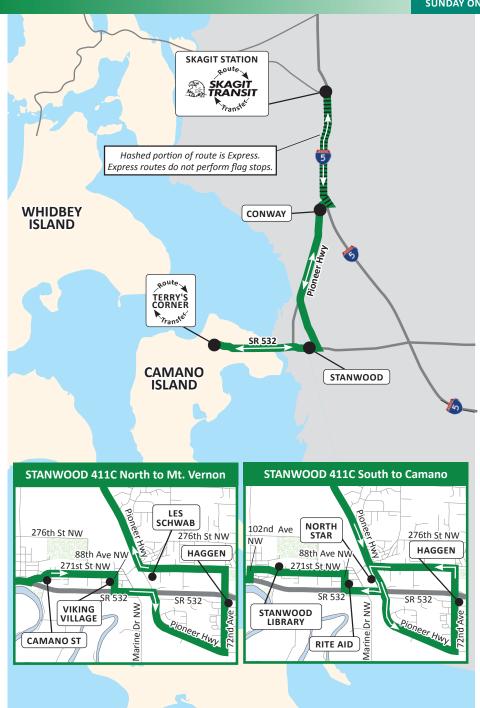


EXHIBIT A											
		4110 BOUN				non					
Depart Terry's Corner	Camano St	Viking Village	Haggen	272nd & Pioneer Hwy	Conway	Skagit Station					
8:30	8:35	8:40	8:45	8:48	9:00	9:10					
12:30	12:35	12:40 12:4		12:48	1:00	1:10					
3:30	3:35	3:40	3:45	3:48	4:00	4:10					

_		4110 30UN	ו חו	Mount Vernon to Camano (SUNDAY ONLY)				
Depart Skagit Station	Conway	North Star	Haggen	Rite Aid	Stanwood Library	Terry's Corner		
9:25	9:30	9:40	9:45	9:50	9:53	10:10		
1:25	1:30	1:40 1:45		1:50	1:53	2:10		
4:25	4:30	4:40	4:45	4:50	4:53	5:10		

SUNDAY ONLY



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		TE 1 BOU	ND	Oak Harbor to Clinton Ferry (MONDAY-FRIDAY)							
Depart Harbor Station at Bayshore Dr	Erie St at Walmart	SE Main St at Coupeville Elementary	SR 525 at Greenbank	SR 525 at Classic Rd	Smugglers Cove at South Whidbey State Park	Freeland at Main St	Bayview P&R	SR 525 at Cultus Bay Rd	Clinton P&R	Arrive Clinton Ferry Terminal	Ferry Departing Clinton
-	-	3:45	4:00	4:03	-	4:09	4:13	4:19	4:23	4:27	4:40
4:00	4:04	4:18 ^N	4:33	4:36	-	4:42	4:46	4:52	4:56	5:00	5:05
4:40	4:44	4:58 ^N	5:13	5:16	-	5:22	5:26	5:32	5:36	5:40	6:00
5:00	5:04	5:18 ^N	5:33	-	5:40	5:51	5:55	6:01	6:05	6:09	6:30
5:30	5:34	5:55	6:12	6:15	-	6:21	6:25	6:31	6:35	6:39	7:00
6:30	6:34	6:55	7:12	-	7:19	7:30	7:36	7:42	7:46	7:50	8:00
7:30	7:34	7:55	8:12	-	8:19	8:30	8:36	8:42	8:46	8:50	9:00
8:00	8:04	8:25	8:42	-	8:49	9:00	9:06	9:12	9:16	9:20	9:30
9:00	9:04	9:25	9:42	-	9:49	10:00	10:06	10:12	10:16	10:20	10:30
10:00	10:04	10:25	10:42	-	10:49	11:00	11:06	11:12	11:16	11:20	11:30
11:00	11:04	11:25	11:42	-	11:49	12:00	12:06	12:12	12:16	12:20	12:30
12:00	12:04	12:25	12:42	-	12:49	1:00	1:06	1:12	1:16	1:20	1:30
12:30	12:34	12:55	1:12	-	1:19	1:30	1:36	1:42	1:46	1:50	2:00
1:00	1:04	1:25	1:42	1:45	-	1:51	1:57	2:03	2:07	2:11	2:35
1:30	1:34	1:55	2:12	-	2:19	2:30	2:36	2:42	2:46	2:50	3:05
2:30	2:34	2:55	3:12	-	3:19	3:30	3:36	3:42	3:46	3:50	4:05
3:30	3:34	3:55	4:12	-	4:19	4:30	4:36	4:42	4:46	4:50	5:05
4:30	4:34	4:55	5:12	-	5:19	5:30	5:36	5:42	5:46	5:50	6:05
5:15	5:19	5:40	5:57	-	6:04	6:15	6:21	6:27	6:31	6:35	7:05
6:15	6:19	6:40 ^R	-	-	-	-	-	-	-	-	
7:00	7:04	7:25 ^R	-	-	-	-	-	-	-	-	
7:45	7:49	8:10 ^R	-	-	-	-	-	-	-	-	

Ferry departure times may change. Please check wsdot.com/ferries for current times.

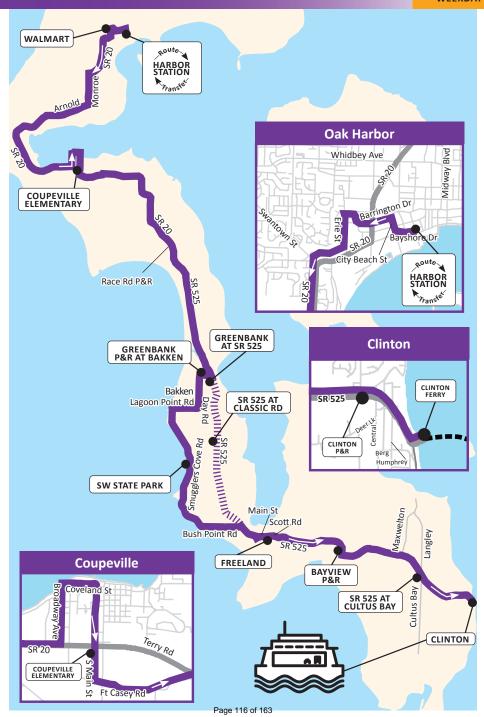
Bold type denotes PM time-points

N - No service to downtown Coupeville (Broadway, Coveland, or N. Main).

R- Trip ends at SR 20 and Ryan's House

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ROUTE 1 - SOUTHEOUND



ROUTE 1
NORTHBOUND

ESLIPTON Ferry to Oak Harbor (MONDAY-FRIDAY)

						•				•	
Ferry Arriving Clinton	*Depart Clinton Ferry Terminal	Clinton P&R	SR 525 at Langley Rd	Bayview P&R	Freeland at Main St	Smugglers Cove at SW State Park	SR 525 at Classic Rd	Coupeville P&R	Arnold Rd/ Monroe Landing Rd	Erie St at Walmart	Arrive Harbor Station at Bayshore Dr
	-	-	-	-	-	-	-	4:30	4:41	4:47	4:55
	-	-	-	-	-	-	-	5:00	5:11	5:17	5:25
	-	-	-	-	-	-	-	5:30	5:41	5:47	5:55
	-	-	-	-	-	-	-	6:00	6:11	6:17	6:25
5:25	5:50	5:51 [#]	5:56	6:02	6:06	-	6:13	6:28	6:39	6:47	6:55
6:20	6:30	6:31 [#]	6:36	6:42	6:46	-	6:53	7:08	7:21	7:27	7:35
6:50	6:55	6:56 [#]	7:01	7:07	7:11	7:21	-	7:41	7:54	8:00	8:08
7:20	7:30	7:31 [#]	7:36	7:42	7:46	-	7:53	8:08	8:21	8:27	8:35
7:50	8:00	8:01	8:09	8:15	8:19	8:29	-	8:49	9:02	9:08	9:16
8:50	9:00	9:01	9:09	9:15	9:19	9:29	-	9:49	10:02	10:08	10:16
9:20	9:50	9:51	9:59	10:05	10:09	10:19	-	10:39	10:52	10:58	11:06
10:20	10:50	10:51	10:59	11:05	11:09	-	11:16	11:31	11:44	11:50	11:58
11:20	11:50	11:51	11:59	12:05	12:09	-	12:16	12:31	12:44	12:50	12:58
12:20	12:30	12:31	12:39	12:45	12:49	-	12:56	1:11	1:24	1:30	1:38
1:20	1:30	1:31	1:39	1:45	1:49	-	1:56	2:11	2:24	2:30	2:38
1:50	2:25	-	2:30	2:36	2:40	2:50	-	3:10	3:23	3:29	3:37
2:55	3:25	-	3:30	3:36	3:40	3:50	-	4:10	4:23	4:29	4:37
3:25	3:55	-	4:00	4:06	4:10	4:20	-	4:40	4:53	4:59	5:07
3:55	4:25	-	4:30	4:36	4:40	-	4:47	5:04	5:17	5:23	5:31
4:25	5:00	-	5:05	5:11	5:15	5:26	-	5:46	5:59	6:05	6:13
5:35	6:00	6:01	6:09	6:15	6:19	6:29	-	6:49	7:02	7:08	7:16
6:00	6:30	6:31	6:39	6:45	6:49	-	6:56	7:11	7:24	7:30	7:38
6:30	7:00	7:01	7:09	7:16	7:21	-	7:28	7:45	-	-	-

Ferry arrival times may change. Please check wsdot.com/ferries for current times.

Bold type denotes PM time-points

H = No service to Humphrey Rd Park-&-Ride

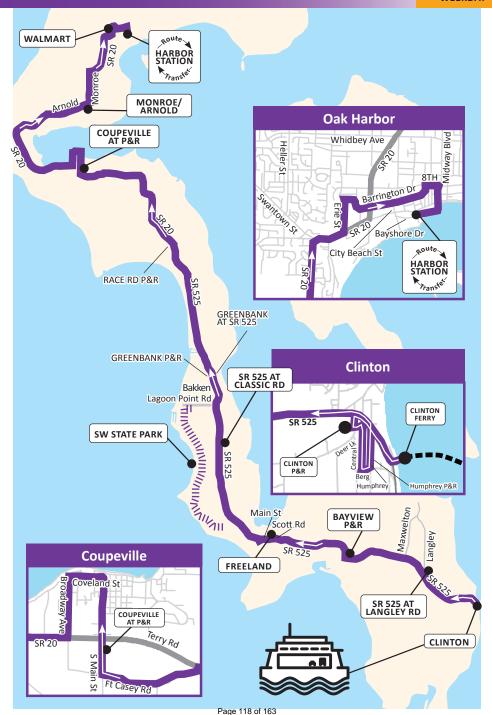
Route goes through Langley on request.

Call Route Information at 360-678-7771 to request pickup.

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^{*}Route will only hold for ferry if it is actively landing and within the pylons.

ROUTE 1 - NOTHE OUND

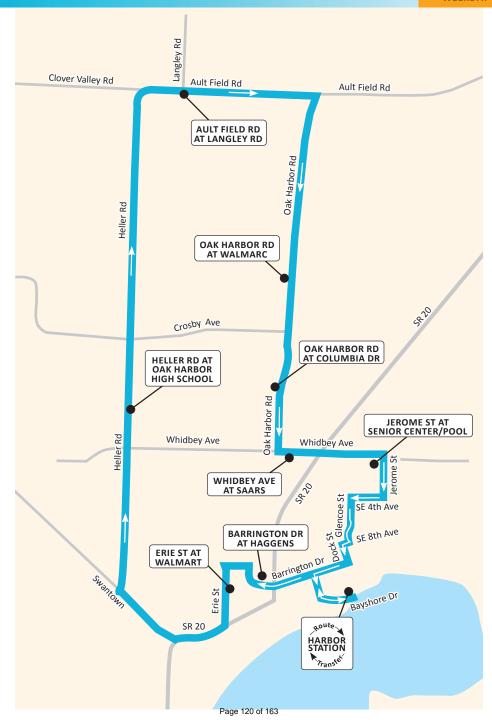


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W I	111		
176	JU		

EXAURITE Eld Rd Oak Harbor (MONDAY-FRIDAY)

Depart Harbor Station at Bayshore Dr	Barrington Dr at Haggen	Erie St at Walmart	Heller Rd at Oak Harbor High School	Ault Field Rd at Langley Rd	Oak Harbor Rd at Walmarc Storage	Oak Harbor Rd at Columbia Dr	Whidbey Ave at Saar's Super Saver	Jerome St at Senior Center/ Pool	Arrive Harbor Station at Bayshore Dr
6:30	6:32	6:34	6:38	6:41	6:44	6:45	6:46	6:48	6:59
7:30	7:32	7:34	7:38	7:41	7:44	7:45	7:46	7:48	7:59
8:30	8:32	8:34	8:38	8:41	8:44	8:45	8:46	8:48	8:59
9:30	9:32	9:34	9:38	9:41	9:44	9:45	9:46	9:48	9:59
10:30	10:32	10:34	10:38	10:41	10:44	10:45	10:46	10:48	10:59
11:30	11:32	11:34	11:38	11:41	11:44	11:45	11:46	11:48	11:59
12:30	12:32	12:34	12:38	12:41	12:44	12:45	12:46	12:48	12:59
1:30	1:32	1:34	1:38	1:41	1:44	1:45	1:46	1:48	1:59
2:30	2:32	2:34	2:38	2:41	2:44	2:45	2:46	2:48	2:59
3:30	3:32	3:34	3:38	3:41	3:44	3:45	3:46	3:48	3:59
4:30	4:32	4:34	4:38	4:41	4:44	4:45	4:46	4:48	4:59
5:30	5:32	5:34	5:38	5:41	5:44	5:45	5:46	5:48	5:59
6:30	6:32	6:34	6:38	6:41	6:44	6:45	6:46	6:48	6:59

ROUTE 2 - AULT FIELD RDIOAK HARBOR



Island Transit GO!

OAK HARBOR ON DEMAND | MONDAY-FRIDAY | 8 AM - 6 PM

- 1 **Harbor Station Transfer Center** on Bayshore Dr
- 2 **Bayshore Dr at Pioneer Ave**
- 3 Midway Blvd at Whidbey Playhouse
- 4 Midway Blvd at Oak Harbor **Elementary (North)**
- 5 Midway Blvd at NE 4th Ave (Log Cabin)
- Midway Blvd at NE 8th Ave
- 7 Goldie Rd at WhidbeyHealth North

- 8 Frostad Rd at Blazer Ct
- 9 Taylor Rd at Hazelwood Dr
- 10 Taylor Rd at Sunset Dr
- 11 Taylor Rd at Boe Rd
- 12 Taylor Rd at Fakkema Rd
- 13 Taylor Rd at Silver Lake Rd
- 14 Crescent Harbor Rd at **Crescent Acres Rd**
- 15 Regatta Dr at Whidbey Ave
- 16 Regatta Dr at SE 10th Ave

Island Transit's on demand service is transportation when and where you need it. We provide riders with a flexible and convenient alternative to traditional transit. This new pilot program is currently only offered in Zone 3, previously known as Route 3. Additional on demand zones will be created as the year progresses. The service is intended to enhance fixed route services by providing more flexibility and frequency for riders in northwest Oak Harbor.

Request a ride easily using the app, website, or by phone, and we'll pick you up and drop you off at marked stop locations within the service area. The ride may also be shared with other passengers, including paratransit, who are traveling in the same direction. This is a same day service - riders must provide at least two hours' notice for pick-up (last reservation is 4pm for same day). Service is available 8am to 6pm. Riders may schedule in advance of the same dav.

To book your trip - follow these simple steps:

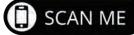
Please note available transit stops marked on the Zone 3 map. These are the pick-up and drop off locations.

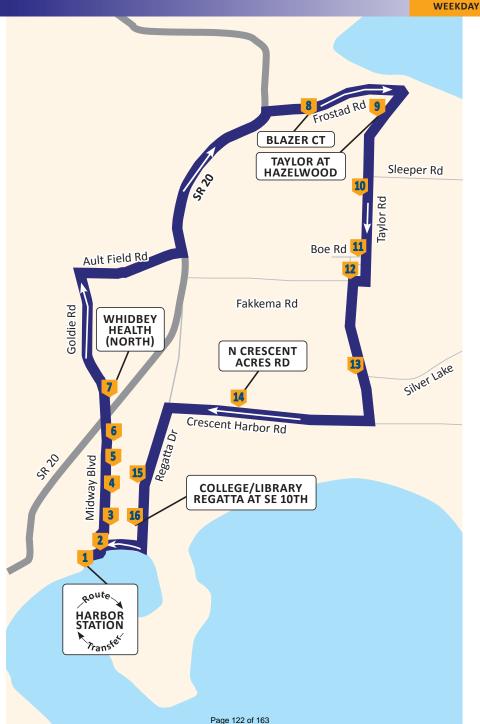
Must schedule at minimum two hours in advance (last reservation is 4pm for same day) – using the app, website link, or calling dispatch at 360-678-7771.

For additional information, how to catch a ride, and to download the app, please click on the QR code.

Please enter *ITOD* on the App to access correct map. Page 121 of 163



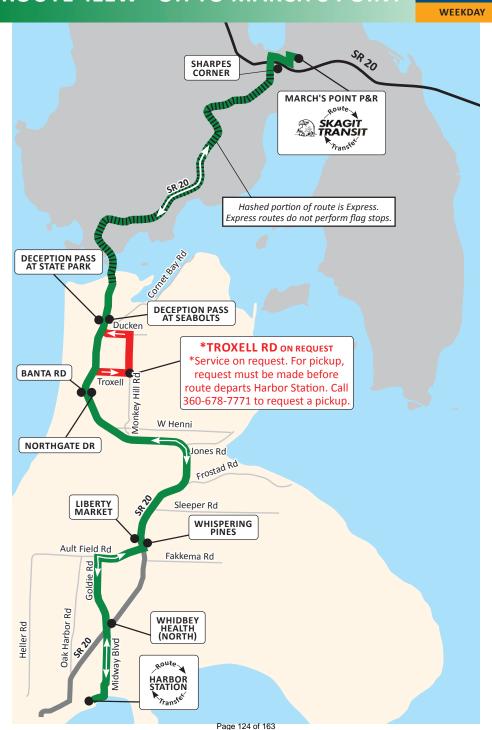




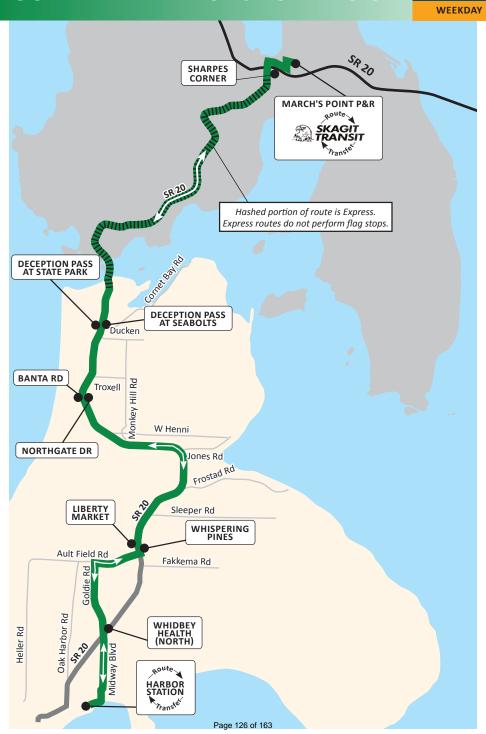
	OUTE RTHE		V	o Mai	Harb rch's I AY-FF	or Point RIDAY))	
Depart Harbor Station at Bayshore Dr	Goldie Rd at WhidbeyHealth (North)	SR 20 at Whispering Pines	SR 20 at Northgate Dr	*Troxell Rd at Monkey Hill Rd	Deception Pass at Seabolts	Arrive March's Pt P&R	SKAGIT TRANSIT 40X Depart March's Pt P&R	SKAGIT TRANSIT 40X Arrive Skagit Station
6:00	6:05	6:09	6:13	6:14	6:15	6:35	6:40	7:00
7:00	7:05	7:09	7:13	7:14	7:15	7:35	7:40	8:00
8:00	8:05	8:09	8:13	8:14	8:15	8:35	8:40	9:00
9:00	9:05	9:09	9:13	9:14	9:15	9:35	9:40	10:00
10:00	10:05	10:09	10:13	10:14	10:15	10:35	10:40	11:00
11:00	11:05	11:09	11:13	11:14	11:15	11:35	11:40	12:00
1:00	1:05	1:09	1:13	1:14	1:15	1:35	1:40	2:00
2:00	2:05	2:09	2:13	2:14	2:15	2:35	2:40	3:00
3:00	3:05	3:09	3:13	3:14	3:15	3:35	3:40	4:00
4:00	4:05	4:09	4:13	4:14	4:15	4:35	4:40	5:00
5:00	5:05	5:09	5:13	5:14	5:15	5:35	5:40	6:00
6:00	6:05	6:09	6:13	6:14	6:15	6:35	6:40	7:00
					411W	Express		

Bold type denotes PM time-points.

*Troxell Rd. @ Monkey Hill Rd, Service on request. For pickup, request must be made before route departs Harbor Station. Call (360) 678-7771 to request service. Page 123 of 163



_	UTE OUTE		1	0	ak Ha	Point t Irbor FRID <i>A</i>	
SKAGIT TRANSIT 40X Depart Skagit Station	SKAGIT TRANSIT 40X Arrive March's Pt P&R	Depart March's Pt P&R	SR 20 at Deception Pass State Park	SR 20 at Banta Rd	SR 20 at Liberty Market	Goldie Rd at WhidbeyHealth (North)	Arrive Harbor Station at Bayshore Dr
6:15	6:40	6:40	6:50	6:52	6:56	7:00	7:10
7:15	7:40	7:40	7:50	7:52	7:56	8:00	8:10
8:15	8:40	8:40	8:50	8:52	8:56	9:00	9:10
9:15	9:40	9:40	9:50	9:52	9:56	10:00	10:10
10:15	10:40	10:40	10:50	10:52	10:56	11:00	11:10
11:15	11:40	11:40	11:50	11:52	11:56	12:00	12:10
1:15	1:40	1:40	1:50	1:52	1:56	2:00	2:10
2:15	2:40	2:40	2:50	2:52	2:56	3:00	3:10
3:15	3:40	3:40	3:50	3:52	3:56	4:00	4:10
4:15	4:40	4:40	4:50	4:52	4:56	5:00	5:10
5:15	5:40	5:40	5:50	5:52	5:56	6:00	6:10
6:15	6:40	6:40	6:50	6:52	6:56	7:00	7:10
		411W I	Express				



	ROUTE 6 SOUTHBOUND EXHIBIT Qak Harbor to Coupeville Ferry (MONDAY-FRIDAY)											
Depart Harbor Station at Bayshore Dr	Erie St at Walmart	Ft Nugent at West Beach Rd	SR 20 at Libbey Rd	SR 20 at Sherman Rd	NW Alexander St at Coupeville Library	Main St at Coupeville Elementary	Arrive Coupeville Ferry Terminal	Ferry Leaving Coupeville				
-	-	-	-	-	-	6:20	6:30	7:15				
7:20	7:24	7:30	7:35	7:38	7:41	7:45	7:55	8:45				
9:20	9:24	9:30	9:35	9:38	9:41	9:45	9:55	10:15				
11:00	11:04	11:10	11:15	11:18	11:21	11:25	11:35	11:45				
12:30	12:34	12:40	12:45	12:48	12:51	12:55	1:05	1:15				
2:00	2:04	2:10	2:15	2:18	2:21	2:25	2:35	2:45				
3:30	3:34	3:40	3:45	3:48	3:51	3:55	4:05	4:15				
5:15	5:19	5:25	5:30	5:33	5:36	5:40	5:50	6:00				
6:00	6:04	6:10	6:15	6:18	6:21	6:25	6:35	7:30				
6:45	6:49	6:55	7:00	7:03	7:06	7:10	7:20	7:30				
7:15	7:19	7:25	7:30	7:33	7:36	7:40	7:50	9:10				

Ferry departure times may change. Please check wsdot.com/ferries for current times.

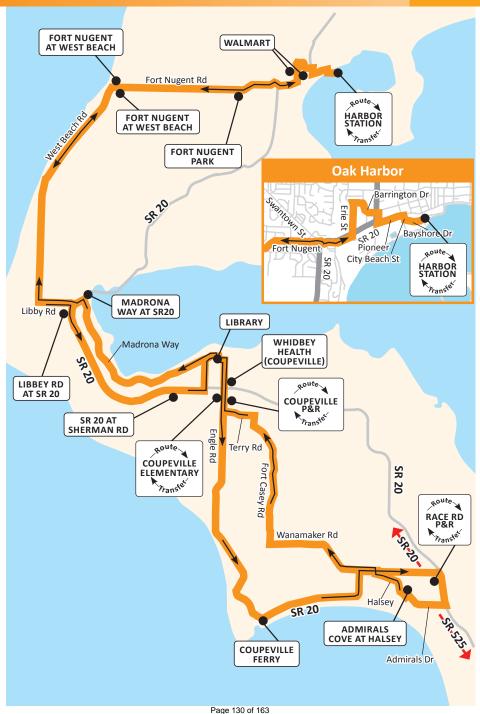
Bold type denotes PM time-points

Red Text - Service on request. Call Route Information at 360-678-7771 to request pickup. Page 127 of 163



	ROUT RTHB		D	EXHIBIÇQupeville Ferry to Oak Harbor (MONDAY-FRIDAY)						
Ferry Arriving Coupeville	Depart Coupeville Ferry Terminal	Race Rd P&R	Admirals Cove at Halsey Dr	Main St at Coupeville P&R	Whidbey Health	Libbey Rd at SR 20	Ft Nugent at West Beach Rd	Erie St at Walmart	Arrive Harbor Station at Bayshore Dr	
-	-	5:40	5:41	5:55	5:56	6:01	6:07	6:13	6:17	
-	6:30	6:35	6:36	6:50	6:51	6:56	7:02	7:08	7:12	
7:05	8:05	8:10	8:11	8:25	8:26	8:31	8:37	8:43	8:47	
10:05	10:05	10:10	10:11	10:25	10:26	10:31	10:37	10:43	10:47	
11:35	11:40	11:45	11:46	12:00	12:01	12:06	12:12	12:18	12:22	
1:05	1:20	1:25	1:26	1:40	1:41	1:46	1:52	1:58	2:02	
2:35	2:35	2:40	2:41	2:55	2:56	3:01	3:07	3:13	3:17	
4:05	4:15	4:20	4:21	4:35	4:36	4:41	4:47	4:53	4:57	
5:50	6:00	6:05	6:06	6:20	6:21	6:26	6:32	6:38	6:42	
	6:35	6:40	6:41	6:55	-	-	-	-	-	
7:20	7:20	7:25	7:26	7:40	-	-	-	-	-	
	7:50	7:55	7:56	8:10	-	-	-	-	-	

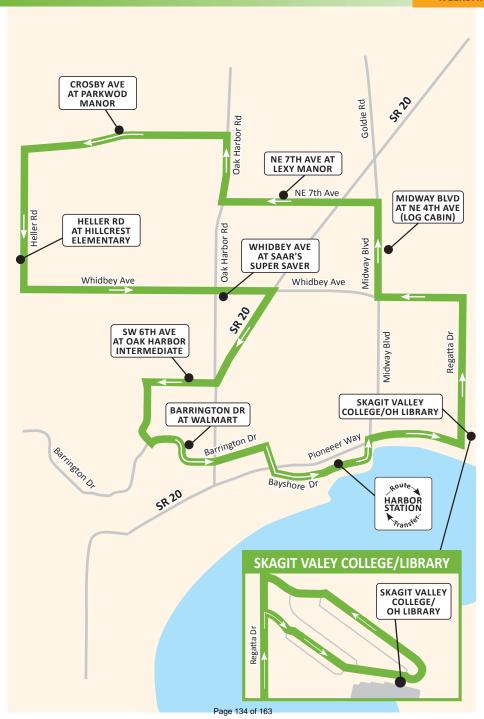
Ferry arrival times may change. Please check wsdot.com/ferries for current times.



	RO	UTE	9				VVC			larbo RID <i>A</i>			
Depart Harbor Station at Bayshore Dr	SR 20 at Swantown Rd	SW 24th Ave at Ridgeway Dr	SW Ft Nugent Rd at Stremler Dr (Park Terrace)	Swantown Rd at Fairway Ln	Monticello Way at Orchard Loop	NW Crosby Ave at NW Scenic Vista St	NW Heller at NW 5th Ave (Hillcrest Elem)	SW Barrington Dr at SW Kaleeton Loop	Erie St at Walmart	SW Bayshore Dr at Grocery Outlet	SE Barrington Dr at City Beach (OH Post Office)	SE Ireland St at SE 8th Ave	Arrive Harbor Station at Bayshore Dr
7:00	7:02	7:04	7:05	7:07	7:08	7:09	7:10	7:13	7:16	7:18	7:20	7:21	7:25
8:00	8:02	8:04	8:05	8:07	8:08	8:09	8:10	8:13	8:16	8:18	8:20	8:21	8:25
9:00	9:02	9:04	9:05	9:07	9:08	9:09	9:10	9:13	9:16	9:18	9:20	9:21	9:25
10:00	10:02	10:04	10:05	10:07	10:08	10:09	10:10	10:13	10:16	10:18	10:20	10:21	10:25
11:00	11:02	11:04	11:05	11:07	11:08	11:09	11:10	11:13	11:16	11:18	11:20	11:21	11:25
		12:04											
1:00	1:02	1:04	1:05	1:07	1:08	1:09	1:10	1:13	1:16	1:18	1:20	1:21	1:25
2:00	2:02	2:04	2:05	2:07	2:08	2:09	2:10	2:13	2:16	2:18	2:20	2:21	2:25
3:00	3:02	3:04	3:05	3:07	3:08	3:09	3:10	3:13	3:16	3:18	3:20	3:21	3:25
4:00	4:02	4:04	4:05	4:07	4:08	4:09	4:10	4:13	4:16	4:18	4:20	4:21	4:25
5:00 6:00	5:02 6:02	5:04 6:04	5:05	5:07 6:07	5:08 6:08	5:09 6:09	5:10 6:10	5:13 6:13	5:16 6:16	5:18 6:18	5:20 6:20	5:21 6:21	5:25 6:25
7:00	7:02	7:04	6:05 7:05	7:07	7:08	7:09	7:10	7:13	7:16	7:18	7:20	7:21	7:25
7.00	7.02	7.04	7.03	7.07	7.00	7.05	7.10	7.13	7.10	7.10	7.20	7.21	7.23



F	ROUT	E 10		EXHI			k Harl -FRID <i>i</i>		
Depart Harbor Station at Bayshore Dr	Skagit Valley College/ OH Library	Midway Blvd at NE 4th Ave (Log Cabin)	NE 7th at Lexy Manor	Crosby Ave at Parkwood Manor	Heller Rd at Hillcrest Elementary	Whidbey Ave at Saar's Super Saver	SW 6th St at Oak Harbor Intermediate	Barrington Dr at Walmart	Arrive Harbor Station at Bayshore Dr
5:30	5:32	5:36	5:39	5:42	5:44	5:47	5:49	5:51	5:59
6:00	6:02	6:06	6:09	6:12	6:14	6:17	6:19	6:21	6:29
6:30	6:32	6:36	6:39	6:42	6:44	6:47	6:49	6:51	6:59
7:00	7:02	7:06	7:09	7:12	7:14	7:17	7:19	7:21	7:29
7:30	7:32	7:36	7:39	7:42	7:44	7:47	7:49	7:51	7:59
8:00	8:02	8:06	8:09	8:12	8:14	8:17	8:19	8:21	8:29
8:30	8:32	8:36	8:39	8:42	8:44	8:47	8:49	8:51	8:59
9:00	9:02	9:06	9:09	9:12	9:14	9:17	9:19	9:21	9:29
9:30	9:32	9:36	9:39	9:42	9:44	9:47	9:49	9:51	9:59
10:00	10:02	10:06	10:09	10:12	10:14	10:17	10:19	10:21	10:29
10:30	10:32	10:36	10:39	10:42	10:44	10:47	10:49	10:51	10:59
11:00	11:02	11:06	11:09	11:12	11:14	11:17	11:19	11:21	11:29
11:30	11:32	11:36	11:39	11:42	11:44	11:47	11:49	11:51	11:59
12:00	12:02	12:06	12:09	12:12	12:14	12:17	12:19	12:21	12:29
12:30	12:32	12:36	12:39	12:42	12:44	12:47	12:49	12:51	12:59
1:00	1:02	1:06	1:09	1:12	1:14	1:17	1:19	1:21	1:29
1:30	1:32	1:36	1:39	1:42	1:44	1:47	1:49	1:51	1:59
2:00	2:02	2:06	2:09	2:12	2:14	2:17	2:19	2:21	2:29
2:30	2:32	2:36	2:39	2:42	2:44	2:47	2:49	2:51	2:59
3:00	3:02	3:06	3:09	3:12	3:14	3:17	3:19	3:21	3:29
3:30	3:32	3:36	3:39	3:42	3:44	3:47	3:49	3:51	3:59
4:00	4:02	4:06	4:09	4:12	4:14	4:17	4:19	4:21	4:29
4:30	4:32	4:36	4:39	4:42	4:44	4:47	4:49	4:51	4:59
5:00	5:02	5:06	5:09	5:12	5:14	5:17	5:19	5:21	5:29
5:30	5:32	5:36	5:39	5:42	5:44	5:47	5:49	5:51	5:59
6:00	6:02	6:06	6:09	6:12	6:14	6:17	6:19	6:21	6:29
6:30	6:32	6:36	6:39	6:42	6:44	6:47	6:49	6:51	6:59
7:00	7:02	7:06	7:09	7:12	7:14	7:17	7:19	7:21	7:29



AM ROUTE 58

Scatchet Head - Clinton Ferry (MONDAY-FRIDAY)

		South	oound			Northbound					
Ferry Arriving Clinton Terminal	Depart Clinton Ferry Terminal	Deer Lk Rd at Clinton P&R	Deer Lk Rd at Haven Way	Cultus Bay Rd at French Rd	Scatchet Head (arriving)	Scatchet Head (departing)	Bailey's Corner at Jewett Rd	Cultus Bay Rd at Deer Lk Rd	SR 525 at Clinton P&R	Arrive Clinton Ferry Terminal	
-	5:00	5:01	5:05	5:09	5:17	5:20	5:25	5:30	5:35	5:37	
5:25	5:40	5:41	5:45	5:49	5:57	6:00	6:05	6:10	6:15	6:17	

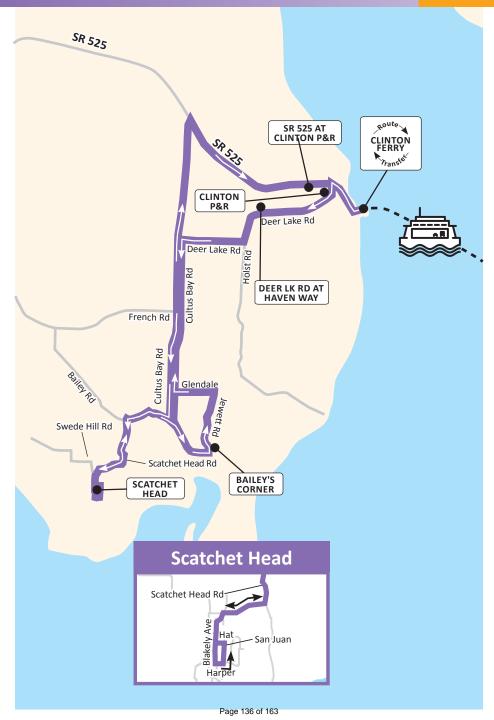
Ferry arrival times may change. Please check wsdot.com/ferries for current times.

PΝ	/I RO	UTE	58	Cli	nton (N	Ferry 10NE	y - Sc DAY-F	atche RIDA	et He Y)	ad
		Southl	oound		No	rthbou	ınd			
Ferry Arriving Clinton Terminal	Depart Clinton Ferry Terminal	Deer Lk Rd at Clinton P&R	Deer Lk Rd at Haven Way	Bailey's Corner at Jewett Rd	Scatchet Head (arriving)	Scatchet Head (departing)	Cultus Bay Rd at French Rd	Cultus Bay Rd at Deer Lk Rd	SR 525 at Clinton P&R	Arrive Clinton Ferry Terminal
5:00	5:30	5:31	5:34	5:40 5:42 5:45 5:49 5:52 5:57 5:59						
5:30	6:00	6:01	6:04	6:10	6:12	6:15	6:19	6:22	6:27	6:29

Ferry arrival times may change. Please check wsdot.com/ferries for current times.

Bold type denotes PM time-points

Red Text - Service on request. Call Route Information at 360-678-7771 to request pickup. Page 135 of 163



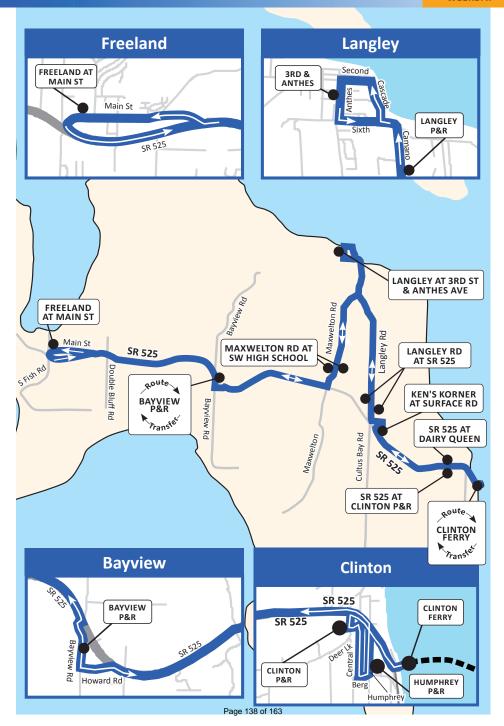
	ROUT RTH			EXHICITION to Freeland via Langley (MONDAY-FRIDAY)							
Ferry Arriving Clinton Terminal	Depart Clinton Ferry Terminal	SR 525 at Dairy Queen	Ken's Korner at Surface Rd	Langley Rd at SR 525	Camano Ave at Langley P&R	Langley Rd at 3rd & Anthes Ave	Maxwelton Rd at South Whidbey High School	Bayview P&R	Bayview Rd at Marshview Rd	Avrrive Freland at Main St	
5:55	*5:55	-	-	-	-	-	-	-	-	-	
6:20	6:50	6:51	6:55	6:58	7:04	7:07	7:12	7:17	7:18	7:25	
7:50	8:05	8:06	8:10	8:13	8:19	8:22	8:27	8:32	8:33	8:40	
8:50	9:20	9:21	9:25	9:28	9:34	9:37	9:42	9:47	9:48	9:55	
10:20	10:40	10:41	10:45	10:48	10:54	10:57	11:02	11:07	11:08	11:15	
11:20	11:50	11:51	11:55	11:58	12:04	12:07	12:12	12:17	12:18	12:25	
12:50	1:00	1:01	1:05	1:08	1:14	1:17	1:22	1:27	1:28	1:35	
1:20	1:30	1:31	1:35	1:38	1:44	1:47	1:52	1:57	1:58	2:05	
1:50	2:15	2:16	2:20	2:23	2:29	2:32	2:37	2:42	2:43	2:50	
2:25	2:55	2:56	3:00	3:03	3:09	3:12	3:17	3:22	3:23	3:30	
3:25	3:55	3:56	-	4:00	4:06	4:09	-	-	-	-	
3:55	4:25	4:26	-	4:30	4:36	4:39	-	-	-	-	
4:25	5:00	5:01	-	5:05	5:11	5:14	-	-	-	-	
5:00	5:30	5:31	-	5:35	5:41	5:44	-	-	-	-	
5:30	6:00	6:01	-	6:05	6:11	6:14	-	-	-	-	
6:00	6:30	6:31	6:35	6:38	6:44	6:47	-	-	-	-	
6:30	7:00	7:01	7:04	7:05	7:11	7:14	-	7:16	-	-	
6:55	7:20	7:21	7:25	7:28	7:34	7:37	7:42	7:47	-	7:55	

Ferry arrival times may change. Please check wsdot.com/ferries for current times.

Bold type denotes PM time-points

Red Text - Service on request. Call Route Information at 360-678-7771 to request pickup. Take Route 1NB into Langley (on Request)
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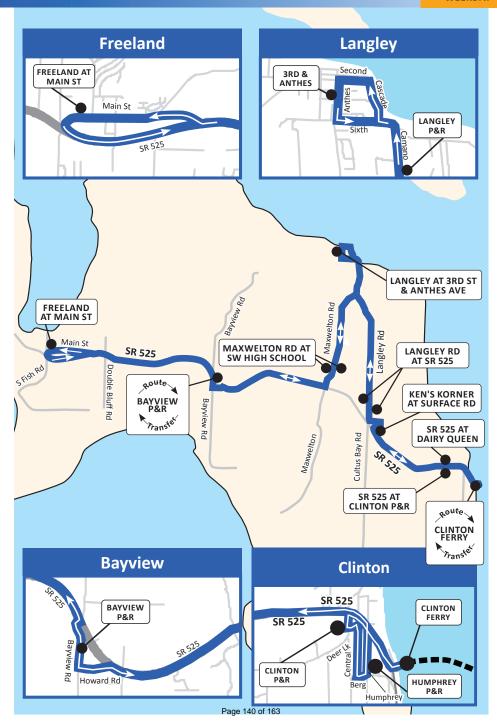
^{*}Trips provide service to Langley via Maxwelton Rd. from Clinton Ferry Dock. Drop off



	ROU [.] UTH			ЕХНІБІТЕ Aland to Clinton via Langley (MONDAY-FRIDAY)							
Depart Freeland at Main St	Bayview Rd at Marshview Rd	Bayview P&R	Maxwelton Rd at South Whidbey High School	Camano Ave at Langley P&R	Langley at 3rd St & Anthes Ave	Langley Rd at SR 525	Ken's Korner at Surface Rd	Clinton P&R	Arrive Clinton Ferry Terminal	Ferry Leaving Clinton Terminal	
-	-	5:25	5:30	5:33	5:36	5:43	-	5:47	5:54	6:00	
-	-	-	6:05	6:08	6:11	6:18	-	6:22	6:29	6:30	
-	-	6:25	6:30	6:33	6:36	6:43	-	6:47	6:54	7:00	
-	-	-	7:05	7:08	7:11	7:18	-	7:22	7:29	7:30	
7:30	-	7:37	7:42	7:45	7:48	7:55	7:56	7:59	8:02	8:30	
8:40	-	8:47	8:52	8:55	8:58	9:05	9:06	9:09	9:12	9:30	
10:05	10:12	10:13	10:18	10:21	10:24	10:31	10:32	10:35	10:40	11:00	
11:15	11:22	11:23	11:28	11:31	11:34	11:41	11:42	11:45	11:50	12:00	
12:25	12:32	12:33	12:38	12:41	12:44	12:51	12:52	12:55	1:00	1:30	
12:45	12:52	12:53	12:58	1:01	1:04	1:11	1:12	1:15	1:20	1:30	
1:40	1:47	1:48	1:51	1:54	1:57	2:04	2:05	2:08	2:11	2:35	
2:15	2:22	2:23	2:28	2:31	2:34	2:41	2:42	2:45	2:52	3:05	
3:20	3:27	3:28	3:30	3:36	3:39	3:46	3:47	3:50	3:57	4:05	
-	-	-	-	-	4:09	4:16	-	4:20	4:24	4:35	
-	-	-	-	-	4:39	4:46	-	4:50	4:57	5:05	
-	-	-	-	-	5:14	5:21	-	5:25	5:29	5:35	
-	-	-	-	-	6:47	6:54	-	6:58	7:02	7:05	

Ferry departure times may change. Please check wsdot.com/ferries for current times.

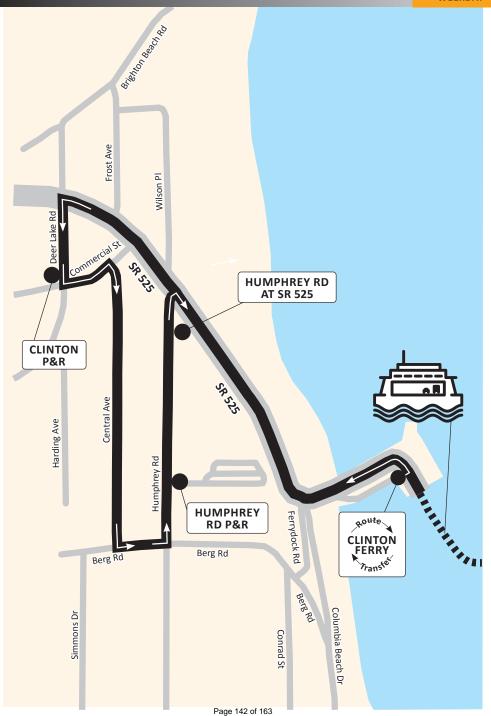
Red Text - Service on request. Call Route Information at 360-678-7771 to request pickup. Page 139 of 163



	CLINTON COMMUTER Clinton Ferry to Clinton P& P											
Clinton Ferry to Clinton P&R (MONDAY-FRIDAY)												
Ferry Arriving Clinton Terminal	Depart Clinton Ferry Terminal	Clinton P&R	Humphrey Rd P&R	Humphrey Rd at SR 525	Arrive Clinton Ferry Terminal							
2:25	2:25	2:26	2:29	2:30	2:33							
2:55	2:55	2:56	2:59	3:00	3:03							
3:25	3:25	3:26	3:29	3:30	3:33							
3:55	3:55	3:56	3:59	4:00	4:03							
4:25	4:25	4:26	4:29	4:30	4:33							
5:00	5:00	5:01	5:04	5:05	5:08							
5:30	5:30	5:31	5:34	5:35	5:38							
6:00	6:00	6:01	6:04	6:05	6:08							

Bold type denotes PM time-points

Take Route 58 at 5:30 pm from the dock to Clinton Park & Ride. Take Route 1 NB at 6:00 pm from the dock to Clinton and Humphrey Park & Ride.
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CENTRAL WHITDELY STATE PARKS NORTHBOUND

DAILY | Effective: May 30 - Sept. 3, 2023

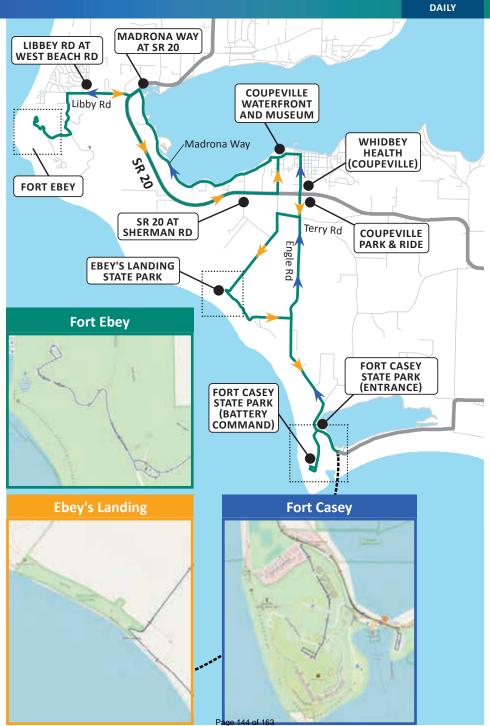
Depart Coupeville Ferry	Fort Casey State Park (Battery Command)	Coupeville Park & Ride	WhidbeyHealth at Main St	Coupeville Waterfront & Museum at Coveland	Madrona Way at SR 20	Libbey Rd at West Beach Rd	Arrive Fort Ebey State Park
8:35	8:40	8:50	8:51	8:53	8:57	8:58	9:13
10:05	10:10	10:20	10:21	10:23	10:27	10:28	10:43
11:35	11:40	11:50	11:51	11:53	11:57	11:58	12:13
1:05	1:10	1:20	1:21	1:23	1:27	1:28	1:43
2:35	2:40	2:50	2:51	2:53	2:57	2:58	3:13

CENTRAL	WHIDBEY	STATE	PARKS
	SOUTHBO	UND	

DAILY | Effective: May 30 - Sept. 3, 2023

Depart Fort Ebey State Park	SR 20 at Sherman Rd	Coupeville Waterfront & Museum at Coveland	WhidbeyHealth at Main St	Ebey's Landing State Park	Fort Casey State Park (Entrance)	Fort Casey State Park (Battery Command)	Arrive Coupeville Ferry
9:25	9:35	9:38	9:40	9:45	9:51	9:55	10:05
10:55	11:05	11:08	11:10	11:15	11:21	11:25	11:35
12:25	12:35	12:38	12:40	12:45	12:51	12:55	1:05
1:55	2:05	2:08	2:10	2:15	2:21	2:25	2:35
3:25	3:35	3:38	3:40	3:45	3:51	3:55	4:05

CENTRAL WHIDBEY STATE PARKS



so		ROUTE 1 Oak Harbor to Clinton Ferry (SATURDAY & SUNDAY)							Ϋ́	
Depart Harbor Station at Bayshore Dr	Erie St at Walmart	Main St at Coupeville Elementary	Coupeville Ferry Terminal	Race Rd P&R	SR 525 at Greenbank	Freeland Main St at Corey Oil	Bayview P&R	SR 525 at Cultus Bay Rd	Clinton P&R	Arrive Clinton Ferry Terminal
-	-	6:15	6:26	6:31	6:41	6:53	7:00	7:18	7:23	7:25
-	-	6:45	6:56	7:01	7:11	7:23	7:30	7:36	7:41	7:49
8:00	8:04	8:21	8:32	8:37	8:47	8:59	9:04	9:10	9:15	9:23
9:00	9:04	9:21	9:32	9:37	9:47	9:59	10:04	10:10	10:15	10:23
10:00	10:04	10:21	10:32	10:37	10:47	10:59	11:04	11:10	11:15	11:23
11:30	11:34	11:51	12:02	12:07	12:17	12:29	12:34	12:40	12:45	12:53
12:30	12:34	12:51	1:02	1:07	1:17	1:29	1:34	1:40	1:45	1:53
1:30	1:34	1:51	2:02	2:07	2:17	2:29	2:34	2:40	2:45	2:53
3:00	3:04	3:21	3:32	3:37	3:47	3:59	4:04	4:10	4:15	4:23
4:00	4:04	4:21	4:32	4:37	4:47	4:59	5:04	5:10	5:15	5:23
6:15	6:19	6:36	6:47	-	-	-	-	-	-	-
6:45	6:49	7:06	7:17	-	-	-	-	-	-	-

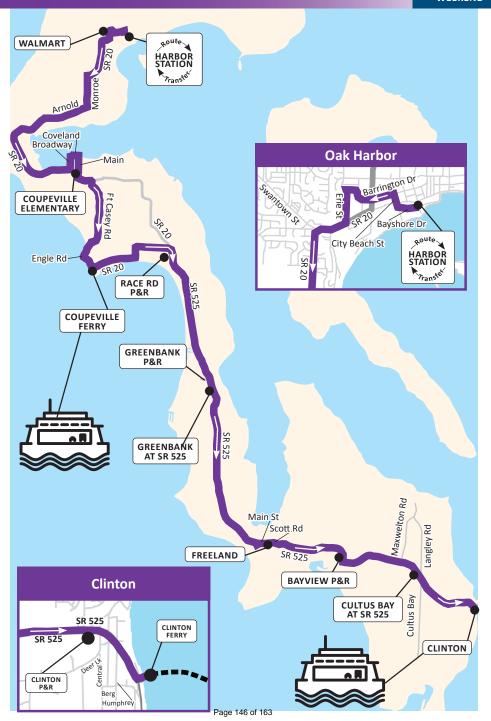
Please check wsdot.com/ferries for current ferry schedules.

Bold type denotes PM times

Red Text denotes service on request. Call Route Information 360-678-7771 to request

6:15 am Route 1 Southbound goes through Langley 3

ROUTE 1 - SOEXHBIOUND



NO	ROU RTH	TE 1 BOU	EXClipton Ferry/Coupeville Ferry to Oak Harbor (SATURDAY & SUNDAY)							
Depart Clinton Ferry Terminal	Clinton P&R	Langley Rd at SR 525	Bayview P&R	Freeland Main St at Corey Oil	SR 525 at Greenbank	Race Rd P&R	Coupeville Ferry Terminal	Main St at Coupeville P&R	Erie St at Walmart	Arrive Harbor Station at Bayshore Dr
-	-	-	-	-	-	-	7:15	7:25	7:45	7:55
-	-	-	-	-	-	-	8:20	8:30	8:50	9:00
8:15	8:16	8:24	8:35	8:39	8:48	8:55	9:00	9:10	9:30	9:40
9:45	9:46	9:54	10:05	10:09	10:18	10:25	10:30	10:40	11:00	11:10
10:45	10:46	10:54	11:05	11:09	11:18	11:25	11:30	11:40	12:00	12:10
11:45	11:46	11:54	12:05	12:09	12:18	12:25	12:30	12:40	1:00	1:10
1:15	1:16	1:24	1:35	1:39	1:48	1:55	2:00	2:10	2:30	2:40
2:15	2:16	2:24	2:35	2:39	2:48	2:55	3:00	3:10	3:30	3:40
3:20	3:21	3:29	3:40	3:44	3:53	4:00	4:05	4:15	4:35	4:45
4:45	4:46	4:54	5:05	5:09	5:18	5:25	5:30	5:40	6:00	6:10
5:15	5:16	5:24	5:42	5:48	5:57	6:04	6:09	6:19	6:39	6:49
5:45	5:46	5:54	6:12	6:18	6:27	6:34	6:39	6:49	-	-

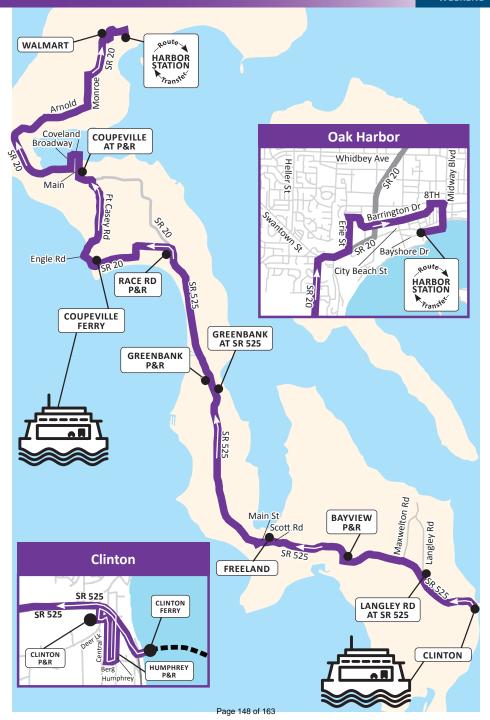
Please check wsdot.com/ferries for current ferry schedules.

Bold type denotes PM times

Red Text denotes service on request to Coupeville Park & Ride. Call Route Information 360-678-7771 to request pickup.

Route goes through Langley, use northbound shelter on Langley Rd Page 147 of 163

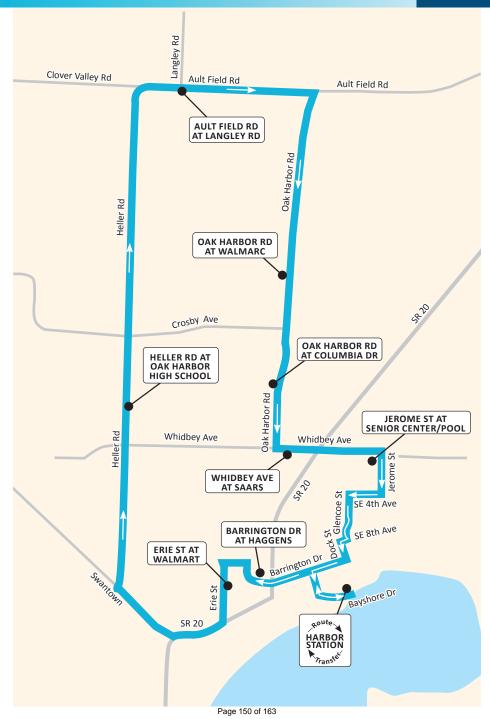
ROUTE 1 - NORTHBEGUND



R			_		
~~				-	
- 17	u	u		_	

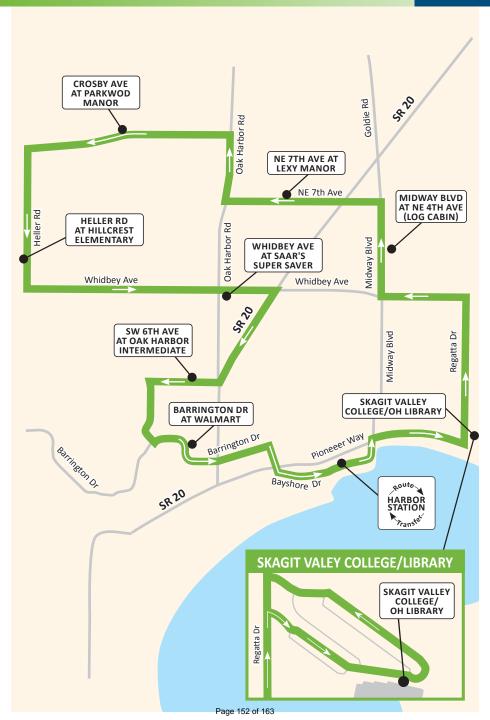
EXHIP FOLD Rd Oak Harbor (SATURDAY & SUNDAY)

Depart Harbor Station at Bayshore Dr	Barrington Dr at Haggen	Erie St at Walmart	Heller Rd at Oak Harbor High School	Ault Field Rd at Langley Rd	Oak Harbor Rd at Walmarc Storage	Oak Harbor Rd at Columbia Dr	Whidbey Ave at Saar's Super Saver	Jerome St at Senior Center/ Pool	Arrive Harbor Station at Bayshore Dr
7:30	7:32	7:34	7:38	7:41	7:44	7:45	7:46	7:48	7:59
8:30	8:32	8:34	8:38	8:41	8:44	8:45	8:46	8:48	8:59
9:30	9:32	9:34	9:38	9:41	9:44	9:45	9:46	9:48	9:59
10:30	10:32	10:34	10:38	10:41	10:44	10:45	10:46	10:48	10:59
12:30	12:32	12:34	12:38	12:41	12:44	12:45	12:46	12:48	12:59
1:30	1:32	1:34	1:38	1:41	1:44	1:45	1:46	1:48	1:59
2:30	2:32	2:34	2:38	2:41	2:44	2:45	2:46	2:48	2:59
3:30	3:32	3:34	3:38	3:41	3:44	3:45	3:46	3:48	3:59
5:30	5:32	5:34	5:38	5:41	5:44	5:45	5:46	5:48	5:59
6:30	6:32	6:34	6:38	6:41	6:44	6:45	6:46	6:48	6:59



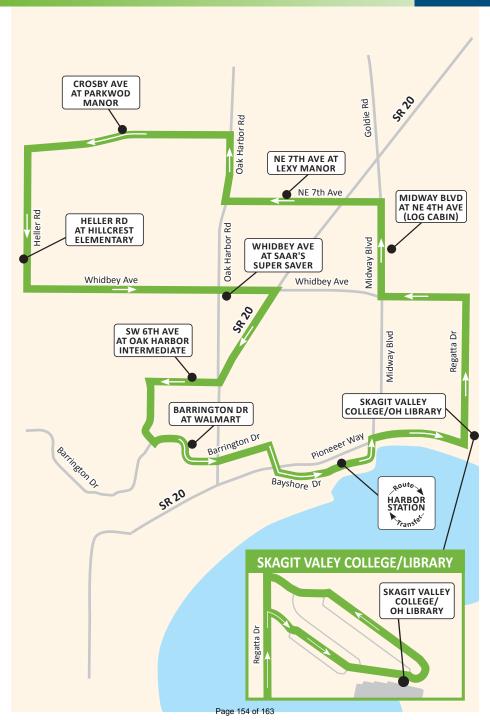
R	ROUT	F 10		EXHI	Beratr	al Oa	k Harl	bor	
,		LIU			(SAT	URDA	N ONI	_Y)	
Depart Harbor Station at Bayshore Dr	Skagit Valley College/ OH Library	Midway Blvd at NE 4th Ave	NE 7th at Lexy Manor	Crosby Ave at Parkwood Manor	Heller Rd at Hillcrest Elementary	Whidbey Ave at Saar's Super Saver	SW 6th St at Oak Harbor Intermediate	Barrington Dr at Walmart	Arrive Harbor Station at Bayshore Dr
6:45	6:47	6:49	6:52	6:55	6:57	7:00	7:02	7:04	7:12
7:00	7:02	7:06	7:09	7:12	7:14	7:17	7:19	7:21	7:29
7:30	7:32	7:36	7:39	7:42	7:44	7:47	7:49	7:51	7:59
8:00	8:02	8:06	8:09	8:12	8:14	8:17	8:19	8:21	8:29
8:15	8:17	8:21	8:24	8:27	8:29	8:32	8:34	8:36	8:44
9:00	9:02	9:06	9:09	9:12	9:14	9:17	9:19	9:21	9:29
10:00	10:02	10:06	10:09	10:12	10:14	10:17	10:19	10:21	10:29
10:30	10:32	10:36	10:39	10:42	10:44	10:47	10:49	10:51	10:59
11:15	11:17	11:21	11:24	11:27	11:29	11:32	11:34	11:36	11:44
11:45	11:47	11:49	11:52	11:55	11:57	12:00	12:02	12:04	12:12
12:15	12:17	12:21	12:24	12:27	12:29	12:32	12:34	12:36	12:44
12:45	12:47	12:49	12:52	12:55	12:57	1:00	1:02	1:04	1:12
1:00	1:02	1:06	1:09	1:12	1:14	1:17	1:19	1:21	1:29
1:15	1:17	1:21	1:24	1:27	1:29	1:32	1:34	1:36	1:44
2:00	2:02	2:06	2:09	2:12	2:14	2:17	2:19	2:21	2:29
3:00	3:02	3:06	3:09	3:12	3:14	3:17	3:19	3:21	3:29
3:45	3:47	3:49	3:52	3:55	3:57	4:00	4:02	4:04	4:12
4:30	4:32	4:36	4:39	4:42	4:44	4:47	4:49	4:51	4:59
5:15	5:17	5:21	5:24	5:27	5:29	5:32	5:34	5:36	5:44
6:00	6:02	6:06	6:09	6:12	6:14	6:17	6:19	6:21	6:29
6:30	6:32	6:36	6:39	6:42	6:44	6:47	6:49	6:51	6:59

SATURDAY ONLY



R	ROUT	F 10		EXHI			k Harl		
					(SU	NDAY	ONL	()	
Depart Harbor Station at Bayshore Dr	Skagit Valley College/ OH Library	Midway Blvd at NE 4th Ave	NE 7th at Lexy Manor	Crosby Ave at Parkwood Manor	Heller Rd at Hillcrest Elementary	Whidbey Ave at Saar's Super Saver	SW 6th St at Oak Harbor Intermediate	Barrington Dr at Walmart	Arrive Harbor Station at Bayshore Dr
6:45	6:47	6:49	6:52	6:55	6:57	7:00	7:02	7:04	7:12
7:00	7:02	7:06	7:09	7:12	7:14	7:17	7:19	7:21	7:29
7:30	7:32	7:36	7:39	7:42	7:44	7:47	7:49	7:51	7:59
8:00	8:02	8:06	8:09	8:12	8:14	8:17	8:19	8:21	8:29
8:15	8:17	8:21	8:24	8:27	8:29	8:32	8:34	8:36	8:44
9:00	9:02	9:06	9:09	9:12	9:14	9:17	9:19	9:21	9:29
9:45	9:47	9:49	9:52	9:55	9:57	10:00	10:02	10:04	10:12
10:00	10:02	10:06	10:09	10:12	10:14	10:17	10:19	10:21	10:29
10:30	10:32	10:36	10:39	10:42	10:44	10:47	10:49	10:51	10:59
11:15	11:17	11:21	11:24	11:27	11:29	11:32	11:34	11:36	11:44
11:45	11:47	11:49	11:52	11:55	11:57	12:00	12:02	12:04	12:12
12:00	12:02	12:06	12:09	12:12	12:14	12:17	12:19	12:21	12:29
12:15	12:17	12:21	12:24	12:27	12:29	12:32	12:34	12:36	12:44
12:45	12:47	12:49	12:52	12:55	12:57	1:00	1:02	1:04	1:12
1:00	1:02	1:06	1:09	1:12	1:14	1:17	1:19	1:21	1:29
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2:00	2:02	2:06	2:09	2:12	2:14	2:17	2:19	2:21	2:29
2:45	2:47	2:49	2:52	2:55	2:57	3:00	3:02	3:04	3:12
3:00	3:02	3:06	3:09	3:12	3:14	3:17	3:19	3:21	3:29
3:45	3:47	3:49	3:52	3:55	3:57	4:00	4:02	4:04	4:12
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6:30	6:32	6:36	6:39	6:42	6:44	6:47	6:49	6:51	6:59

SUNDAY ONLY



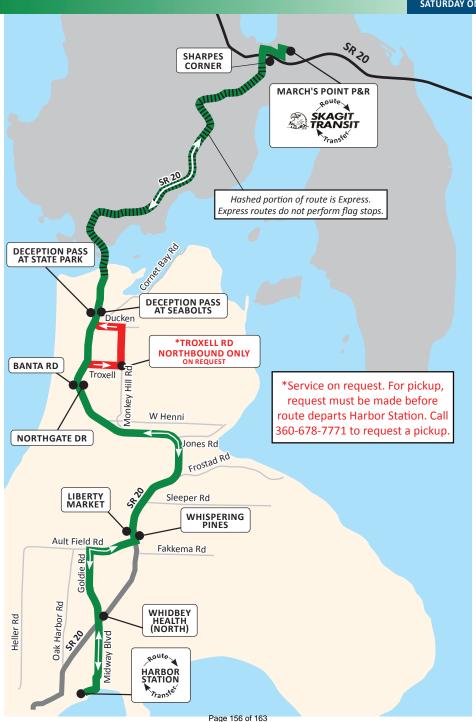
	OUTE RTH		~~	^{(HIBIT} Óak Harbor to March's Point (SATURDAY ONLY)				
Depart Harbor Station at Bayshore Dr	Goldie Rd at WhidbeyHealth (North)	SR 20 at Whispering Pines	SR 20 at Northgate Dr	Troxell Rd at Monkey Hill Rd	Deception Pass at Seabolts	Arrive March's Pt P&R	SKAGIT TRANSIT 40X Depart March's Pt P&R	SKAGIT TRANSIT 40X Arrive Skagit Station
9:00	9:05	9:09	9:13	9:14	9:15	9:35	9:40	10:00
11:00	11:05	11:09	11:13	11:14	11:15	11:35	11:40	12:00
2:00	2:05	2:09	2:13	2:14	2:15	2:35	2:40	3:00
4:00	4:05	4:09	4:13	4:14	4:15	4:35	4:40	5:00
5:00	5:05	5:09	5:13	5:14	5:15	5:35	-	-
		Express						

	OUTE UTH			March's Point to Oak Harbor (SATURDAY ONLY)					
SKAGIT TRANSIT 40X Depart Skagit Station	SKAGIT TRANSIT 40X Arrive March's Pt P&R	Depart March's Pt P&R	SR 20 at Deception Pass State Park	Troxell Rd at Monkey Hill Rd	SR 20 at Banta Rd	SR 20 at Liberty Market	Goldie Rd at WhidbeyHealth (North)	Arrive Harbor Station at Bayshore Dr	
9:15	9:40	9:40	9:50	_	9:53	9:59	10:03	10:15	
11:15	11:40	11:40	11:50	-	11:53	11:59	12:03	12:15	
2:15	2:40	2:40	2:50	-	2:53	2:59	3:03	3:15	
4:15	4:40	4:40	4:50	-	4:53	4:59	5:03	5:15	
5:15	5:40	5:40	5:50	-	5:53	5:59	6:03	6:15	
		411W I	Express						

Red Text denotes service on request. Call Route Information 360-678-7771 to request pickup.

ROUTE 411 WEXHIBIT & SB

SATURDAY ONLY



	Harbor Station to Deception Pass State Park (SUNDAY ONLY)										
Depart Harbor Station at Bayshore Dr Goldie Rd at WhidbeyHealth (North) SR20 at SR20 at Northgate Dr Troxell Rd at Monkey Hill Rd* Deception Pass State Park											
9:00	9:00 9:05 9:09 9:13 9:14 9:20										
11:00 11:05 11:09 11:13 11:14 11:20											
2:00 2:05 2:09 2:13 2:14 2:20											
4:00	4:05	4:09	4:13	4:14	4:20						

5:09

5:13

5:20

5:14

RO	ROUTE 4 SOUTHBOUND										
Deception Pass State Park to Harbor Station (SUNDAY ONLY)											
Deception Pass State Park	Deception Pass State Park SR20 at Banta Rd SR20 at Liberty Market Goldie Rd at (North) Arrive Harbor Station at Bayshore Dr										
9:25	9:27	9:31	9:35	9:45							
11:25	11:27	11:31	11:35	11:45							
2:25	2:25 2:27 2:31 2:35 2:45										
4:25	4:25 4:27 4:31 4:35 4:45										
5:25	5:27	5:31	5:35	5:45							

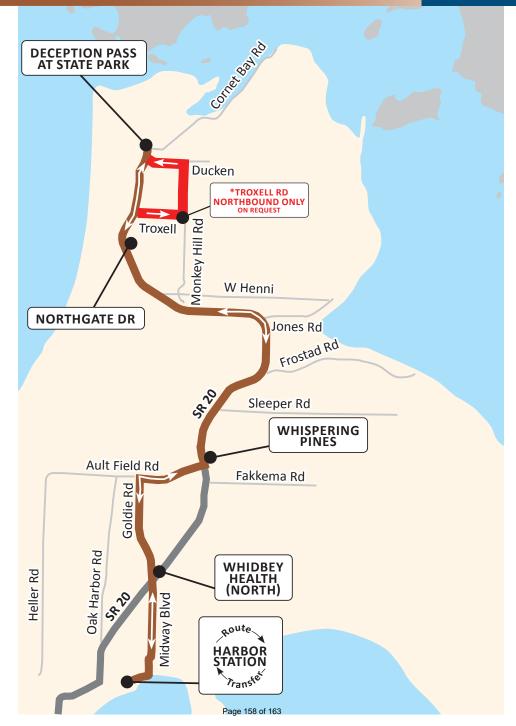
Bold type denotes PM time-points.

5:00

5:05

*Troxell Rd at Monkey Hill Rd, Service on request. For pickup, request must be made before route departs Harbor Station. Call 360-678-7771 to request service.

SUNDAY ONLY



	ROU ⁻			EXHIDITATION to Freeland via Langley (SATURDAY & SUNDAY)					
Ferry Arriving Clinton Terminal	Depart Clinton Ferry Terminal	Clinton P&R	Ken's Korner at Surface Rd	Langley Rd at SR 525	Camano Ave at Langley P&R	Langley at 3rd St & Anthes Ave	Maxwelton Rd at South Whidbey High School	Bayview P&R	Arrive Freeland at Main St
7:50	8:00	8:01	8:08	8:09	8:15	8:18	8:23	8:26	8:33
9:20	9:35	9:36	9:43	9:44	9:50	9:53	9:58	10:01	10:08
10:20	10:35	10:36	10:43	10:44	10:50	10:53	10:58	11:01	11:08
11:50	12:00	12:01	12:08	12:09	12:15	12:18	12:23	12:26	12:33
12:50	1:05	1:06	1:13	1:14	1:20	1:23	1:28	1:31	1:38
2:25	2:30	2:31	2:38	2:39	2:45	2:48	2:53	2:56	3:03
3:25	3:45	3:46	3:53	3:54	4:00	4:03	4:08	4:11	4:18
5:00	5:15	5:16	5:23	5:24	5:30	5:33	5:40	5:42	5:48
5:30	5:45	5:46	5:53	5:54	6:00	6:03	6:10	6:12	6:18

Bold type denotes PM time-points

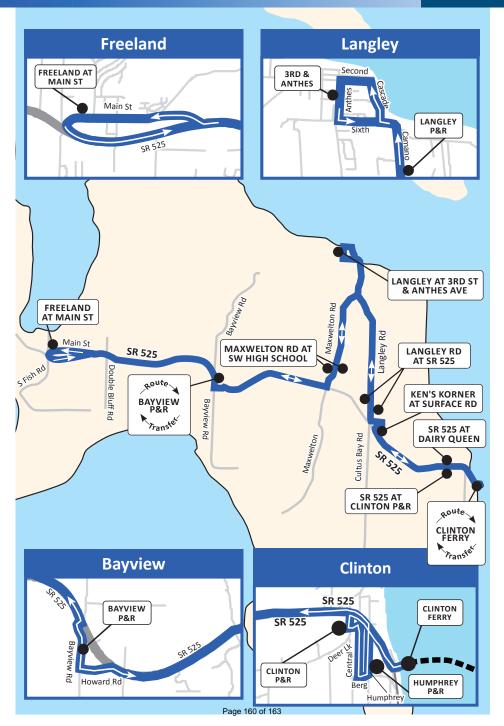
5:15 and 5:45 PM - Take Route 1 NB into Langley

	ROUT UTHI			Freeland to Clinton via Langley (SATURDAY & SUNDAY)					
Depart Freeland at Main St	Bayview P&R	Maxwelton Rd at SW High School	Camano Ave at Langley P&R	Langley at 3rd St & Anthes Ave	Langley Rd at SR 525	Ken's Korner at Surface Rd	Clinton P&R	Arrive Clinton Ferry Terminal	Ferry Leaving Clinton Terminal
-	7:00	7:03	7:08	7:11	7:18	7:19	7:23	7:25	8:00
9:00	9:07	9:10	9:15	9:18	9:25	9:26	9:30	9:32	10:00
10:10	10:17	10:20	10:25	10:28	10:35	10:36	10:40	10:42	11:00
11:10	11:17	11:20	11:25	11:28	11:35	11:36	11:40	11:42	12:00
12:35	12:40	12:43	12:48	12:51	12:58	12:59	1:04	1:06	1:30
1:45	1:52	1:55	2:00	2:03	2:10	2:11	2:15	2:18	2:35
3:05	3:12	3:15	3:20	3:23	3:30	3:31	3:35	3:37	3:50
4:20	4:27	4:30	4:35	4:38	4:45	4:46	4:50	4:52	5:05

Bold type denotes PM time-points 7:00 AM - Take Route 1 SB into Lange 163

Ferry departure and arrival times may change. Please check wsdot. com/ferries for current times.

ROUTE 60 EXHIBIT AB



APPENDIX E

PUBLIC OUTREACH & PARTICIPATION

Public Comment Period:	July 31 – August 31, 2023
Contact Information:	Island Transit ATTN: Assistant to the Executive Director 19758 SR 20 Coupeville, WA 98239 (360) 678-7771 heppner@islandtransit.org
Draft Available for Review:	Island Transit website — www.islandtransit.org heppner@islandtransit.org (360) 678-7771 Whidbey and Camano administrative offices
Hybrid Public Hearing:	August 4, 2023, 9:30 AM
Posted Notices:	 July 29, August 9, 16, 23, 30, 2023 - Whidbey News Times August 8, 15, 22, 29, 2023 - Stanwood Camano News Island Transit Website Social Media Island Transit Operations & Administration Building 19758 SR20, Coupeville, WA 98239 Camano Satellite Base 174 Can Ku Road, Camano Island, WA 98282
Board of Directors Adopts TDP	September 1, 2023 Board Meeting - Resolution No. 6-23
Transit Development Plan Distributed:	 WSDOT GMS Compliance Module Island Region Transportation Planning Organization City and Town Halls: Langley, Coupeville, Oak Harbor Naval Air Station Whidbey Island



EXHIBIT A

APPENDIX F

PUBLIC COMMENTS

No public comment as of September 1, 2023.

EXHIBIT A

APPENDIX G

RESOLUTION NO. 6-23

RESOLUTION NO. 6-23

A RESOLUTION of the Board of Directors of the Island County Public Transportation Benefit Area Corporation adopting the Island Transit Six-Year Transit Development Plan 2023-2028 as set forth in Exhibit A, attached hereto and incorporated herein by this reference, and authorizing the Executive Director to apply and execute all applicable federal, state, and local grants consistent with projects approved in the Island Transit Six-Year Transit Development Plan 2023-2028.

WHEREAS, RCW 35.58.2795 directs that by September 1 of each year, the legislative authority of each municipality, as defined in RCW 35.58.272, and each regional transit authority shall prepare a six-year transit development plan for that calendar year and the ensuing five years after; and

WHEREAS, prior to adoption the required public hearing took place on August 4, 2023, and all public notification and participation procedures required by Island Transit's Public Participation Plan and RCW 35.58.2795 were fulfilled; and

WHEREAS, the Board of Directors of Island Transit desires to adopt Island Transit's 2023-2028 Transit Development Plan (TDP), as set forth in Exhibit A, attached hereto and incorporated herein by this reference: and

WHEREAS, the Board of Directors of Island Transit authorize the Executive Director to apply and execute all applicable federal, state, and local grants consistent with projects approved in the Island Transit Six-Year Transit Development Plan 2023-2028.

NOW THEREFORE, BE IT RESOLVED by the Board of Directors of the Island County Public Transportation Benefit Area Corporation that they hereby adopt the Island Transit Six-Year Transit Development Plan 2023-2028 as set forth in Exhibit A, attached hereto and incorporated herein by this reference, and authorize the Executive Director to apply and execute all applicable federal, state, and local grants consistent with projects approved in the Island Transit Six-Year Transit Development Plan 2023-2028.

Matthew Hendricks, Attorney

Matthew Hendricks, Matthew Hendricks, Matthew Hendricks, Matthew Hendricks, Matthew Hendricks, Matthew Hendricks, Matthew Hendricks, Matthew Hendricks, Matthew Hendricks, Matthew Hendricks, Matthew Hendricks, Matthew Hendricks, Matthew Hendricks, M ADOPTED at an open public meeting of the Board of Directors of Island Transit on September 8, 2023.