RAISE Grant Proposal - Attachments

TABLE OF CONTENTS

PLANNING AND PROGRAMMING DOCUMENTATION

REFERENCES, INCLUDED

- Project Charter (2019)
- Metro SAB Fact Sheet (2023)
- SAB Stakeholder Workshop Summary (2019)

REFERENCES – EXTERNAL LINKS

- METRO CONNECTS (Adopted 2021)
- Strategic Climate Action Plan (SCAP, 2020)
- Puget Sound Regional Council VISION 2050
- King County Equity & Social Justice Strategic Plan
- City of Tukwila Comprehensive Plan
- King County Ordinance 17709: Green Building
- King County Ordinance 16948: Fair & Just Principle

REFERENCES – AVAILABLE UPON REQUEST

- King County Mobility Framework
- OCG Communications Plan, SAB Project (2020)
- Metro Compensation & Contract Guidelines
- King County Metro Reported Ridership (2019)
- King County Metro Facilities Master Planning Program: Operational Capacity Growth Report (2019)
- Metro Operational Capacity Growth Program PMP (2020)
- SAB Initial Project Management Plan (IPMP, 2020)
- King County Metro Countywide Bus Base Siting Analysis Memorandum (2016)
- Feasibility of Achieving a Carbon-Neutral or Zero-Emission Fleet Plan (2017)
- Zero-Emission Battery Bus Preliminary Implementation Plan (2020)

MAPS / EXHIBITS

REFERENCES – INCLUDED

- South Campus Map
- South Annex Base (SAB) Project Map
- South Annex Base (SAB) Vicinity Map

REFERENCES – EXTERNAL LINKS

- South Annex Base (SAB) Physical Location: Google Maps

RAISE APPLICATION DOCUMENTS

REFERENCES – INCLUDED

- Budget / Cost Estimate
- Schedule - Time Line
- Opportunity Zone documentation
- Area of Persistent Poverty documentation
- Urbanized Area RAISE 2023 documentation

REFERENCES – AVAILABLE UPON REQUEST

- Audited Metro Financial Statements

ENVIRONMENTAL RISK REVIEW & SUPPORTING STUDIES & REPORTS

REFERENCES – INCLUDED

- Environmental Risk Review Report
- NEPA Concurrence & DCE Checklist

REFERENCES – EXTERNAL LINKS

- City of Tukwila Shoreline Management: Website

REFERENCES – AVAILABLE UPON REQUEST

- Air Quality Report (2020)
- Biological Assessment (2020)
- Critical Areas Report & Conceptual Restoration Plan (2020)
- Cultural Resources Inventory & Inadvertent Discovery Plan (2020)
- Environmental Justice Analysis Report (2020)
- Environmental Site Assessments (2019)
- Geotechnical Engineering Report (2020)
- LEEDv4 BD+C Platinum Feasibility Study + Cost Estimates (2020)
- LEED Zero Carbon Feasibility Analysis (2020)
- Living Building Challenge Feasibility Study (2019)
- Noise & Vibration Discipline Report (2020)
- Stormwater Drainage Memo (2020)
- South Annex Base Traffic Study (2020)
- WELL Building Feasibility Analysis (2020, in progress)

Questions about Metro's RAISE grant application?
Contact Peter Heffernan, King County Metro Intergovernmental Relations.

Email: Peter.Heffernan@kingcounty.gov

King County

Project Charter:
1134223 - South Annex Base

Date Prepared: May 1, 2019

Project Identification:

Project Name:	TDC SOUTH ANNEX BASE		
Project Number:	1134223	**Project Type:**	Standard
Program Name :	Operational Capacity Growth	Other Tracking No.:	19T-12
Phases Authorized:	PLANNING/PRE-DESIGN	**Grant No. (if known):**	n/a
Budget Authorized:	$6,475,111		

Project Sponsors and Management

Program Manager :	Kayla Haines
Project Sponsor (Program Manager's Supervisor) :	Jeff Arbuckle
Project Manager (If Assigned):	TBD
End User/Client/Other Stakeholders :	N/A

Recommended By:

Kayla Haines — 6-12-19

Program Manager Signature — Date

Approval:

This authorizes the preliminary scope and budget as defined in this Charter. The Project Charter is the document that formally authorizes the Project Manager to proceed with the capital project.

The undersigned has approved this charter:

[signature] — 3/6/19

Project Sponsor (Program Manager's Supervisor) Signature — Date

Notifications upon approval:

Send electronic notification to the following individuals or group:

Project Manager Supervisor	Transit Real Estate and Environment Supervisor
PMO Supervisor	Sustainability Program Manager
Engineering Manager	Safety Program Manager
Asset Manager	Project Manager (if known)
ESJ Program Manager	

Project Need/Justification:

The Puget Sound region is expected to grow by approximately 1 million people and 850,000 jobs in the next 25 years. For the region to meet future transportation demand, the Puget Sound Regional Council's Transportation 2040 Plan identifies the need for all transit agencies to double their ridership. According to the Metro Long Range Plan, that means adding 70% more service hours than currently provided with an expanded bus fleet. To support the expanded fleet, Metro established the Operational Capacity Growth Program, culminating in the release of the Operational Capacity Growth Facilities Master Plan Report (OCG-FMPR) which highlighted the need to site and construct at least two new transit bases. High levels of growth are currently centered in the urban areas, particularly Seattle, but are forecasted to extend into more affordable suburban areas something that is already beginning to occur, especially in south King County. In order to expedite the delivery of at least one of the transit bases, the OCG-FMPR recommended construction should occur on Metro's existing South Annex property in Tukwila.

Project Objective:

The primary objective of this project is the necessary additional bus capacity with the ability to support charging requirements for bus electrification.

Preliminary Project Scope Statement:

Design and construction of a permanent 250 bus transit base on Metro owned property called the South Annex Transit base which will include vehicle maintenance bays, steam bays, inspection bays, bus wash bays, bus fueling full electric charging infrastructure, operator spaces (break, locker, restroom, dispatch, chief, superintendent), and miscellaneous other business functions required for base operations (safety, health and wellness, etc.).

As an advancement to Metro's current bases, the South Annex Base should include:

- Electric Bus & Non-Revenue Vehicle (NRV) Charging Infrastructure
- Designated Locations for Interior Bus Wash (Detailing)
- Passive Fall Protection Access for Vehicle Roof Work
- Demountable Fueling Systems (this base is expected to be fully electric within 5 years of opening)
- Double Decker Bus Provisions (Clear Height Within Bays, Adequate Door Sizing)

Project Alignment with Agency Strategy:

Goal 3: Economic Growth and Built Environment

Expanding our operating facilities to increase available service

Goal 5: Service Excellence

Increase provision of service to King County

Key Project Deliverables:

250 Bus Capacity Transit Base – Multiple Buildings/Multiple Capital Assets

Planning Level Schedule Assumptions:

Task Name	Duration	Start	Finish
South Annex (SA) - Permanent Base	**1900 days**	**Mon 6/4/18**	**Fri 9/12/25**
Planning	**260 days**	**Mon 6/4/18**	**Fri 5/31/19**
SA Conceptual Design	260 days	Mon 6/4/18	Fri 5/31/19
Design	**745 days**	**Mon 6/3/19**	**Fri 4/8/22**
SA Design Scope Development	40 days	Mon 6/3/19	Fri 7/26/19
SA Design Contracting/Tendering/Award	130 days	Mon 7/29/19	Fri 1/24/20
SA Predesign (0%-30% Design)	130 days	Mon 1/27/20	Fri 7/24/20
SA Design (30% - 90% Design)	250 days	Mon 7/27/20	Fri 7/9/21
SA Permitting	130 days	Mon 7/12/21	Fri 1/7/22
SA Final Design (90%-100%)	65 days	Mon 1/10/22	Fri 4/8/22
Relocation	**497 days**	**Fri 11/2/18**	**Mon 9/28/20**
Safety & Training Lease Negotiation	130 days	Mon 3/4/19	Fri 8/30/19
Safety & Training Facility Leased	0 days	Mon 9/2/19	Mon 9/2/19
Safety & Training Leased Facility Fit-Out	130 days	Tue 10/1/19	Mon 3/30/20
Safety & Training Move	21 days	Tue 3/31/20	Tue 4/28/20
South Construction Relocation Procurement	216 days	Fri 11/2/18	Fri 8/30/19
South Construction Facility Purchased	0 days	Fri 8/30/19	Fri 8/30/19
South Construction Leased Facility Fit-Out	260 days	Mon 9/2/19	Fri 8/28/20
South Construction Move	21 days	Mon 8/31/20	Mon 9/28/20
All Facilities Cleared	0 days	Mon 9/28/20	Mon 9/28/20
Demolition	**260 days**	**Tue 9/29/20**	**Mon 9/27/21**
Safety & Training Demolition	130 days	Tue 9/29/20	Mon 3/29/21
South Construction Demolition	130 days	Tue 9/29/20	Mon 3/29/21
Site Demolition	130 days	Tue 3/30/21	Mon 9/27/21
Construction	**880 days**	**Mon 1/10/22**	**Fri 5/23/25**
SA Construction Contracting/Tendering/Award	130 days	Mon 1/10/22	Fri 7/8/22
SA Construction	750 days	Mon 7/11/22	Fri 5/23/25
Commissioning And Turnover	**80 days**	**Mon 5/26/25**	**Fri 9/12/25**
SA Commissioning	20 days	Mon 5/26/25	Fri 6/20/25
SA Training	20 days	Mon 6/23/25	Fri 7/18/25
SA Trial Operations	40 days	Mon 7/21/25	Fri 9/12/25

Planning Level Cost Range:

Cost range for electric bus charging infrastructure is an unknown, with subject matter expert ranges between $500,000 and $1,500,000 per bus for the infrastructure alone. This range translates to a substantial range in the overall project estimate.

3rd Party Estimates for the Base Facility are $140,000,000 -$170,000,000.

Total Project Cost Range: $140,000,000 to $350,000,000

Initial Project Assumptions:

Project Assumes:

- On Grade Parking for 250 Buses (No Multi-Level Garage)
- Site Cleared and Available For Demolition Q4 2020

Permitting Assumptions:

Permitting will require coordination of Capital Transit Real Estate and Environmental Permitting Teams and Transit Facilities Division Environmental Specialist.

Approval of an Unclassified Use Permit (UUP) from the City of Tukwila will be required for redevelopment of South Annex Base.

Initial Project Constraints/Risks

- Setbacks and stream buffers--The site contains or is bounded by both piped and daylighted branches of Riverton Creek that have regulated setbacks and buffers. Metro assumes the City will not require culverted portions to be daylighted (based on conversations with City staff). Daylighting, if required, could severely impact site functionality because daylighting will trigger buffer requirements not currently imposed on culverted streams
- Market Conditions – Regional growth has impacted the availability of qualifying design/construction firms and thus may either drive up project cost or provide challenges in identifying qualifying firms.

Property Acquisitions Strategy:

This is currently a Metro owned site; no acquisition is necessary.

Sustainability Development Programs:

This project must comply with the 2013 Green Building Ordinance (GBO) and strive to achieve goals as outlined in the 2015 Strategic Climate Action Plan. This structure has more than 5,000 sq. ft. of conditioned space, as such per the GBO the facility must be LEED certified with the U.S. Green Building Council and strive to achieve a Platinum level. The project may consider third-party certification using an alternative green building certification and striving to achieve the highest level (e.g. Living Building Petal

Certification, ENVISION). Project must consider green building and ESJ opportunities early in planning and design.

The sustainability team representatives must be consulted prior to Gate 1 and Gate 2 reviews. Prior to Gate 3, at 30% design the PM team must complete a LEED (or alternative rating system) checklist plan, ESJ Plan (with credits tracked on the King County Sustainability Infrastructure Scorecard) and a construction and demolition debris plan (target of 85% diversion from landfill). At substantial completion, the LEED rating level achieved (or alternative rating system level), ESJ credits, and tons of construction and demolition diverted must be reported prior to Gate 4 review. Prior to Gate 3 and Gate 4 review, the project team must bring their documentation to the GBO/ESJ Internal Review Team for QA/QC review. From 30% design through 60% and 90% design and implementation, PM teams are responsible for notifying the Sustainability and ESJ teams if changes in scope or design (e.g. value engineering criteria) affect the green building or ESJ rating system level achieved.

If the project will be unable to achieve the highest rating level (i.e. Platinum) or proposes to use a different rating system other than LEED these decisions need to be documented, approved by the Delivery Board and communicated to the King County Green Tools coordinator (Nori Catabay). Communication to the King County Internal Green Building Team coordinator must be done well in advance for an opportunity to troubleshoot and problem solve to prevent not being able to meet GBO/SCAP requirements and targets. Metro Transit Department General Manager will need to inform and send a letter to the GBO Leadership Sponsor (Bob Burns) and SCAP Leadership Sponsor (Megan Smith).

NOTE: The project will need to report compliance with Equity and Social Justice (ESJ) requirements using the King County Scorecard, in contrast the green building requirements will be reported via the third-party certification checklist.

For this site special consideration should be given to the following:

- Infrastructure to support Strategic Climate Action Plan goals to electrify our bus and non-revenue vehicle fleet.
- Electric only alternatives should be considered for all facility equipment and HVAC systems. As Washington State building efficiency requirements advance and the County moves to update the Strategic Climate Action Plan, per the Carbon Neutral Plan, there is further emphasis on phasing out the use of fossil fuels in our facilities. All energy using equipment must include a life-cycle cost assessment that includes the energy costs and cost of carbon pollution. Guidance on costs available from Sustainability Program.
- King County Stormwater Manual and opportunities to improve water quality via green stormwater infrastructure best management practices. King County staff resources in WLRD and Stormwater should be brought in early in design (esp. Mark Wilgus in WLRD). Consideration should be given to whether this watershed qualifies per section 1.3 Special Requirements in King County Stormwater Manual.
- 2015 City of Seattle Energy code will be met or exceeded, regardless of building location, per King County 2015 Strategic Climate Action Plan.

Equity and Social Justice:

For this site special consideration should be given to actions that will reduce disparities and enhance access to opportunity. The population in the area of the South Annex base includes low-income individuals, people of color, and people with limited English proficiency – all populations specifically addressed by King County's ESJ Ordinance. In addition, the site is located in an area with air quality that is substantially lower than the rest of King County, with less tree canopy and more impervious surface. The project team will identify opportunities to reduce these disparities. In addition, innovative approaches targeting Minority or Women Owned Business during procurement should be considered as a pro-equity approach for this project to support County Equity and Social Justice Goals on Goods and Services works. Construction works should follow the county's ESJ requirements and be done under a Community Workforce Agreement that will broaden opportunities for underserved individuals.

Early project charrettes/workshops and brainstorming sessions will identify opportunities for the project to reduce disparities and increase opportunities. Based on these concepts, an ESJ plan will be created identifying specific actions to be taken throughout the life of the project. The project team will engage in continuous and robust community engagement, ensuring that the community is not only informed, but is able to participate in the development of this plan, as well as overall decision-making on the project. Based on this plan, the project must complete GBO scorecard at 30% and report at substantial completion steps taken to advance ESJ using the credits and guidance on the King County Sustainable Infrastructure Scorecard. Opportunities should be considered early in design and plan submitted by 30%. Plans must be reviewed by ESJ capital coordinators.

Contracting Strategy – A/E & Construction:

- OTAK Work Order (WO) to support planning and concept design
- OTAK Work Order to support pre-application materials to secure buffer conditions

CM Services:

- TetraTech Work Order A – Construction Management (CM) Services For 2025 Base – This WO would start ASAP establishing a separate CM team at TetraTech for CM Services and Constructability Reviews. The WO would carry through the life of the project.

Design Packages:

- TetraTech Work Order B –Site Works and Demolition 1-100% Design – This WO would start ASAP and establish a TetraTech Team that would focus on development of an early civil works and demolition packages, designing the underground utilities for the site, and the site itself (paving/striping/etc). This would likely end up being several construction packages (packaging could be combined as recommended by the CM group)
    - Demolition
    - Early Site Works (Civil) – likely including rat slab to 10 feet out from facility footprint
    - Site Works (Paving/etc.)
- TetraTech Work Order C – Facility Design 0-10% - This WO would start ASAP and establish TetraTech a TetraTech Team that would focus on development of the facility packages to

approximately 10% design, including development of scoping documents/etc to support a bid package for 10-100% design. A key early deliverable from this work order is the definition of Point Of Connection for each facility from the utilities.

- 10-100% Facility Design Package – This would be a competitively bid package. A key component of this package is also the development of performance specifications to support future alternative delivery works on similar types of facilities, plus the more obvious 10-100% design work for the facilities.
- 0-100% Electric Bus Charging Design – This would be a competitively bid package. This package is intended to define the above grade electrical infrastructure for bus charging (leveraging a duct bank scheme developed as part of the early site works package for underground routing).

Construction Packages:

- Early Site Works – Demolition and Utilities (potentially up to and including a rat slab ~10' out from each facility)
- Site Works – Topping slab (screed coat), yard lighting, striping, etc.
- Facility Construction – Above grade facilities & major equipment (bus lifts, steam boilers, etc)
- Electric Bus Charging – Above grade charging infrastructure including gantry system, charging heads, transformers, etc.

Success Criteria:

South Annex Transit Base Fully Operational By September 2025

Supporting all zero-emission battery electric buses powered by renewable energy.

LEED Platinum (or equivalent) green building certification rating level achieved.

Paving the way for King County's clean energy fleet

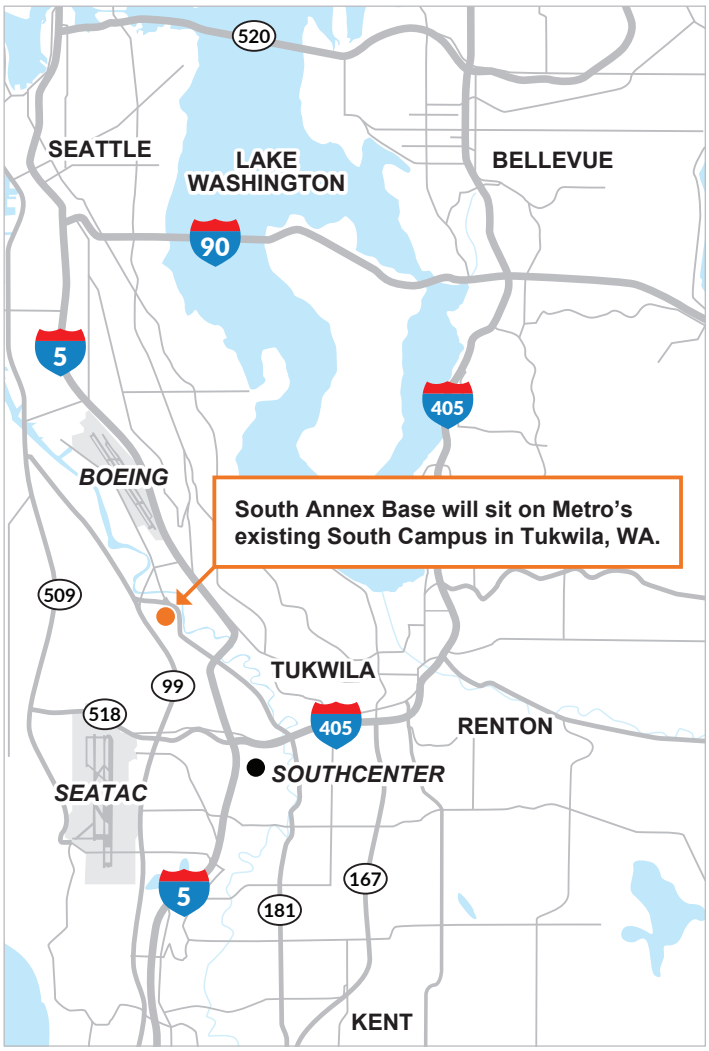
South Campus Site Visit

King County METRO

South Annex Base

King County Metro is leading the nation in creating a fully electric bus fleet, starting at South Annex Base.

South Annex Base will house and maintain up to 250 battery electric, zero-emission buses, that will provide meaningful contributions to the physical, environmental, and economic health of the county.



What are the benefits of South Annex Base?

South Annex Base is critical to Metro's vision for the future – a region served by seamless, multi-modal transit that provides equity, efficiency, and sustainability. Key benefits include:

Sustainability and reduced emissions

Full electrification at South Annex Base is a big step toward Metro's goal of having a zero emissions fleet no later than 2040 and reaching emissions reduction goals called for in the King County Strategic Climate Action Plan. Additionally, the 250 battery-electric bus fleet and third party-certified (LEED Platinum or Living Building Challenge) green building facilities at South Annex Base will help improve air quality in south King County where residents experience disproportionate air pollution and higher rates of respiratory illnesses.*

Growing service equitably

King County is growing in population and jobs, increasing demand for transit and mobility services. With a more ethnically diverse and working-class population than other areas, south King County relies heavily on transit. Metro currently operates 26 routes out of the existing facilities at South Campus, serving over 30 communities. South Annex Base will allow for more efficient transit service to area cities and neighborhoods.

Job creation

Metro is committed to creating hundreds of new jobs, providing job training, and continued community workforce agreements through South Annex Base construction and operations. The new base is necessary to support current and future service that will improve access to transit and connections to regional employment centers.

*www.deohs.washington.edu/sites/default/files/COVID-19-burden.pdf

Paving the way for King County's clean energy fleet

South Campus Site Visit

King County METRO

South Annex Base

How will Metro involve the community?

Metro has operated facilities in Tukwila for more than 40 years with deep ties to the city and the community. In 2019 and 2021, Metro held a South Annex Base roundtable discussion with representatives from local communities and organizations. The project team will continue to engage the community throughout design and construction of South Annex Base.

Project schedule

South Annex Base Metro is in the early design phase, with construction planned in 2025 and operations starting in 2027.

2018-2020

Planning

- Community engagement and FTA review under the National Environmental Policy Act (NEPA)

2021-2024

Design (we are here)

- FTA concurrence with (NEPA) analysis 3/21/21.
- Alternatives analysis/pre-design complete by Q1 2022
- Final design by Q3 2023
- Notice to Proceed by Q3 2024

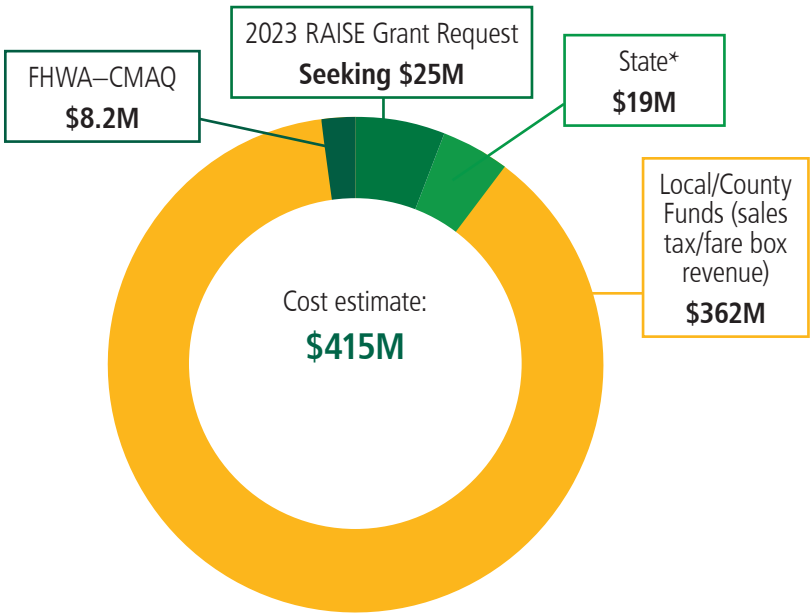
2025-2027

Construction

- Substantial completion and revenue service by Q3 2027

* Delays in contract development, procurement, design, or construction activities could push the target opening year.

Project funding



* -$9M pending State Legislative approval

Questions or comments?

If you have questions or comments, please contact:

Peter Heffernan
King County Metro Intergovernmental Relations
@ peter.heffernan@kingcounty.gov
206 477 3814

Metro Tukwila Bus Base Expansion Stakeholder Workshop Summary

Overview
King County Metro's seven existing bus bases are over capacity and unable to meet the region's current and future service needs. Metro's Operational Capacity Growth program aims to increase bus capacity at existing facilities, including expanding operations at South Campus in Tukwila. As part of the South Campus expansion, Metro will design and build a new permanent base referred to as South Annex Base that will house, operate, and maintain 250 all-electric buses.

This summary covers the details and key themes from the Tukwila Bus Base Expansion Stakeholder Workshop on August 8, 2019. Metro invited representatives from local communities and organizations to participate in a site walk and roundtable discussion to introduce the project and gather input on how this new facility could benefit and integrate with the surrounding community in a meaningful way.

Meeting Details and Agenda
9 to 11 a.m., August 8, 2019
South Campus Training Facility, Classroom 3
11911 East Marginal Way South, Seattle, WA 98168

Time	Item
9:00 a.m.	Welcome
9:10 a.m.	Presentation: Operational Capacity Growth program overview
9:20 a.m.	Presentation: Plans for South Annex Base
9:30 a.m.	Site walk
10:00 a.m.	Roundtable discussion: Learn more about their community needs and priorities
10:55 a.m.	Report out and next steps
11:00 a.m.	Adjourn

Attendance
Of the invited participants, 15 attended the presentation and site walk, and around 12 stayed for the roundtable discussion. Tukwila City Councilmember Kate Kruller also attended. Invited attendees included:

- Habtamu Abdi, Ethiopian Community in Seattle
- Eugenia Bogazzi, Environmental Coalition of South Seattle (ECOSS)
- Mary Fertakis, Allentown resident
- Shamso Issak, Living Well Kent
- Kato Gobe, Ethiopian Community in Seattle
- Hien Kieu, Partner in Employment (PIE)
- Ivonne Rivera Martinez, Sound Transit
- A.J. McClure, Global to Local
- Andrea H. Reay, Seattle Southside Chamber of Commerce
- David Shumate, Allentown resident

- Lina Stinson-Ali, HealthPoint Tukwila
- Lidia Tadilla, Tukwila Community Connector
- Amy Lloyd Wagner, Refugees Northwest/Lutheran Community Services Northwest

City of Tukwila attendees:

- Niesha Fort-Brooks, City of Tukwila
- Alison Turner, City of Tukwila

King Count Metro/project team attendees:

- Gay Boyce, King County Metro observer
- Cindy Chen, King County Metro facilitator
- Tristan Cook, King County Metro
- Samantha DeMars-Hanson, consultant/PRR note taker
- Kayla Haines, King County Metro presenter
- Lindsay Martin, Otak presenter
- Jen Mayer, King County Metro observer
- Gabrielle Newgent, King County Metro note taker
- Jay Peterson, King County Metro observer
- Chad Weiser, Otak presenter

Presentation and Site Walk Summary

Metro welcomed attendees, reviewed the meeting goals, and provided an overview of Metro's Operational Capacity Growth program and plans for expansion at South Campus in Tukwila. Otak, Metro's South Annex Base planning consultant, presented the conceptual site plan for South Annex Base along with the employee parking plan.

Metro then led attendees on a site-walk that included a tour around the current training facility building of where the future South Annex Base facilities and a stop at East Marginal Way South to offer a street view of the future site and the current vehicle maintenance building and component supply center.

After the site walk, Metro separated attendees into two random groups for a facilitated roundtable discussion that focused on how Metro's growth in Tukwila could better support community needs and priorities.

Key takeaways

- **Mobility and service needs are a priority:** Participants urged Metro to meet with planners and the community to talk about their transit experiences. They want Metro to focus on tackling existing community priorities like access to buses and community destinations.
- **Base design should consider community character:** Participants recommended that Metro consider community character as they design the new base, and not perpetuate the industrial look of a typical bus base. This could include the creation or enhancement of nearby trails, parks with trees, and art installations.
- **Jobs and training opportunities must be inclusive:** Participants want the new base to signify a true investment in the community that brings jobs and value to the area as opposed to just a parking lot for buses. Some suggested Metro increase outreach with the community regarding employment opportunities, specifically start the recruitment process early, if possible, and advertise the job opportunities at local community centers and organizations. Additionally, Metro should ensure the application process accessible to all, reviewing hiring practices and

application/interview questions to ensure there is an equity focus and identify any practices that reinstitute cultural barriers. Other recommendations included partnering with local, trusted organizations like Partner in Employment (PIE) and Refugee Women's Alliance (ReWA) to host job fairs or ESL classes; providing English language training, including vocational ESL training that's specific to the transit industry, along with driving training for new bus operators; and considering employee amenities and needs, like shorter shifts for older employees and offering on-site childcare.

- **Plan for potential environmental effects from addition of double the employees:** Participants are interested in the potential environmental effects of the increased number of Metro employees anticipated at South Campus. Groups voiced concerns about the emissions and pollution from the extra cars on the road if most employees drive to work. They suggested Metro consider promoting alternatives to driving alone including offering secure bike storage, showers, carpools/vanpools, carpool parking spots, safe bike routes and other transportation demand management (TDM) measures like use of electric vehicles or rideshare programs. One participant suggested there be a circulator in Allentown to take employees to work at the new base, or other employers nearby like the Museum of Flight or the Amazon fulfillment center in Kent.
- **Communicate with neighbors early and often:** The community wants transparency about construction and operations impacts, including advanced notification about planned environmental work and construction hours and noise impacts. Some were interested in the amount of power the electric buses will need and the potential effects on the local community.

Attendees posing for a group photo

Attendees participating in the site tour

Paving the way for King County's clean energy fleet

South Annex Base

King County Metro: South Campus

South Annex Base

South Annex Base Conceptual Layout

NOTES

- Conceptual Site Layout: Final layout to be determined during alternatives analysis and final design

Paving the way for King County's clean energy fleet

South Annex Base

Project Vicinity

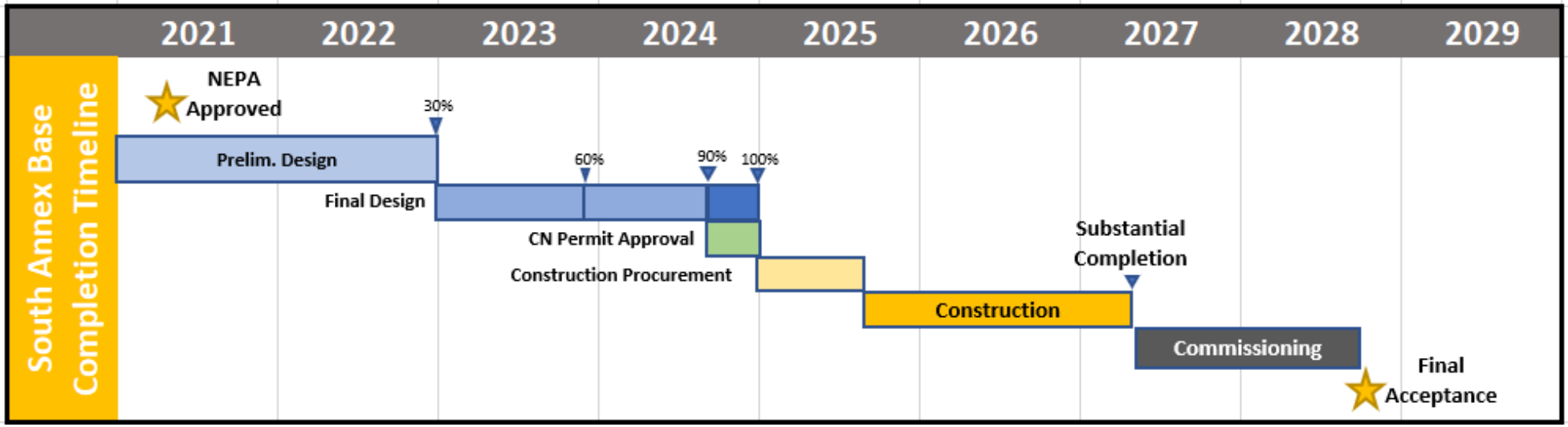
Item No.	Type	Description	2022 30% Design			
1000000		**Buildings**	**Quantity**	**Units**	**Unit Cost**	**Total**
1100000	D	Operations Building	48,835.00	SF	$ 632	$ 30,868,272
1110000	D	Operations/Admin				
1120000	D	Operations (incl lobby)				
1130000	D	Wellness Center				
1140000	D	Vehicle Maintenance Admin				
1150000	D	Facility Maintenance				
1160000	D	Vertical Circulation				
1200000	D	Vehicle Maintenance Bays & Shops	98,913.00	SF	$ 556	$ 54,972,937
1201000	D	Vehicle Maintenance Bays & Shops				
1202000	D	Vehicle Maintenance Admin				
1300000	D	Service Building	14,463.00	SF	$ 697	$ 10,078,181
1400000	D	Maintenance Equipment				
1500000	D	2 Bay Clean & Detail Building				
1600000	D	Wash Building	5,656.00	SF	$ 765	$ 4,325,652
1700000	D	Roofing Finishes				
		Buildings Subtotal				**$ 100,245,042**
2000000		**Electrification**				
2100000	D	Electrical Infrastructure	1.00	LS	$ 16,157,059	$ 16,157,059
2200000	D	Bus Charging Units	110.00	EA	$ 127,614	$ 14,037,492
2300000	D	Gantry with Charging Heads	220.00	EA	$ 51,859	$ 11,409,070
2400000	D	Solar Rooftops w/ Canopy Structure	1.00	LS	$ 21,990,287	$ 21,990,287
		Electrification Subtotal				**$ 63,593,908**
3000000		**Site Improvements**				
3100000	D	Site Improvements General	50,000.00	SF	$ 1,161.12	$ 58,056,200
3110000	D	Demo and Clearing	526,000.00	SF	$ 22.50	$ 12,098,000
3120000	D	Paving	450,000.00	SF	$ 19.00	$ 8,550,000
3130000	D	Landscaping	68,900.00	SF	$ 38.00	$ 2,618,200
3140000	D	Storm Drainage	450,000.00	SF	$ 50.00	$ 31,500,000
3150000	D	On-Site Stormwater Management	1.00	LS	$ 1,000,000.00	$ 1,000,000
3160000	D	Lighting	360,000.00	SF	$ 1.60	$ 720,000
3170000	D	Site Structures	1.00	LS	$ 1,100,000.00	$ 1,000,000
3180000	D	Utilities	1.00	LS	$ 510,000.00	$ 570,000
3200000	D	Off-Site Improvements	24,750.00	LS	$ 225	$ 5,564,000
3210000	D	Roadway paving	75,000.00	SF	$ 22	$ 1,650,000
3220000	D	Traffic Signal	1.00	EA	$ 870,000	$ 870,000
3230000	D	Sidewalk	3,000.00	SY	$ 180	$ 540,000
3240000	D	Utility undergrounding				$ -
3240500	D	Offsite Storm Dainage	1.00	LS	2500000	$ 2,500,000
3250000	D	Off-Site Stormwater Management	1.00	LS	$ 4,000	$ 4,000
3300000	D	Bus Fleet Parking - 40 ft. Battery Coach				$ -
3400000	D	Bus Fleet Parking - 60 ft. Battery Coach				$ -
3500000	D	Exterior Parking Areas				$ -
3600000	D	Riparian Enhancements	1.00	LS	$ 3,900,000	$ 4,000,000
		Site Improvements Subtotal				**$ 67,620,200**
		Direct Construction Subtotal				**$ 231,459,150**
4000000		**Indirect Soft Costs**				
5100000	I	Design Allowance (20%)	1.00	LS	$ 46,291,830	$ 46,291,830
5200000	I	Art Allowance	1.00	LS	$ 4,219,000	$ 4,219,000
5300000	I	ESJ Allowance	1.00	LS	$ 2,314,592	$ 2,314,592

Item No.	Type	Description	2022 30% Design			
5400000	I	Sustainibility Allowance	1.00	LS	$ 2,314,592	$ 2,314,592
5500000	I	Washington State Use Tax	1.00	LS	$ 12,896,962	$ 12,896,962
		Indirect Soft Cost Total				**$ 68,036,975**
		Grand Total w/o Escalation				**$ 299,496,125**
5500000	I	Escalation to YOE (3% for 3.5 years)	1.00	LS	$ 27,771,377	$ 27,771,377
		Grand Total w Escalation				**$ 327,267,503**
		Owner Controled/Tracked Costs				
9100000	I	Project Development	1.00	LS	$ 15,100,000	$ 15,100,000
9200000	I	Engineering	1.00	LS	$ 24,200,000	$ 24,200,000
9300000	I	Project Management (D&C)	1.00	LS	$ 12,100,000	$ 12,100,000
9400000	I	Construction Administration & Management	1.00	LS	$ 9,100,000	$ 9,100,000
9500000	I	Professional Liability & Insurances	1.00	LS	$ 3,000,000	$ 3,000,000
9600000	I	Legal, Review Fees & Third Party Costs	1.00	LS	$ 1,300,000	$ 1,300,000
9700000	I	Survey, Testing, Investigation & Inspection	1.00	LS	$ 3,000,000	$ 3,000,000
9800000	I	Start-Up Costs	1.00	LS	$ 760,000	$ 760,000
		Owner Controled/Tracked Costs				**$ 68,560,000**
10000000	**I**	**Project Contingency**	**1.00**	**LS**	**$ 41,120,000**	**$ 41,120,000**
		Total Project Cost				**$ 437,000,000**

Paving the way for King County's clean energy fleet

South Annex Base

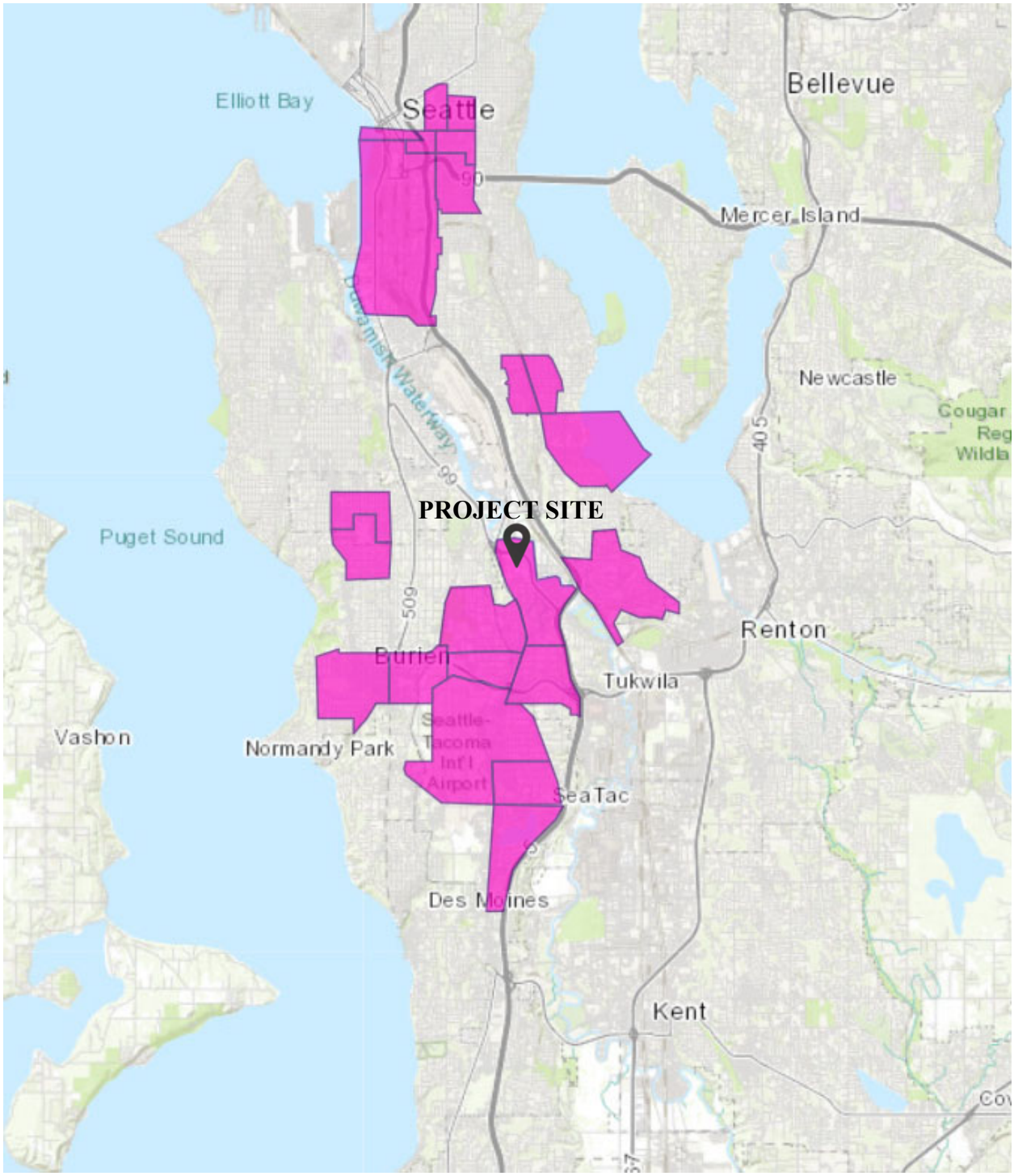
Project Timeline and RAISE Grant Milestones



NOTES

- Project Timeline based on detailed, cost and resource-loaded schedule developed and maintained Microsoft Project.

South Annex Base and Adjacent Opportunity Zones



Source: HUD Map of Opportunity Zones. https://opportunityzones.hud.gov/resources/map

Areas of Persistent Poverty & Historically Disadvantaged Communities

To determine if a project is located in these areas for the purpose of a RAISE grant application, please use this new map tool! Instructions are below on this page.

An **"Area of Persistent Poverty"** is defined for the RAISE grant program by the Bipartisan Infrastructure Law. A project is located in an Area of Persistent Poverty for the RAISE 2023 grant program if:

1. the **County** in which the project is located consistently had greater than or equal to 20 percent of the population living in poverty in all three of the following datasets: (a) the 1990 decennial census; (b) the 2000 decennial census; and (c) the 2021 Small Area Income Poverty Estimates; **OR**
2. the **Census Tract** in which the project is located has a poverty rate of at least 20 percent as measured by the 2014-2018 5-year data series available from the American Community Survey of the Bureau of the Census; **OR**
3. the project is located in any territory or possession of the United States.

A **"Historically Disadvantaged Community"** is defined for the RAISE program, consistent with OMB's Interim Guidance for the Justice40 Initiative. A project is located in a Historically Disadvantaged Communities if:

1. the project is located in certain qualifying census tracts; **OR**
2. the project is located on Tribal land; **OR**
3. the project is located in any territory or possession of the United States.

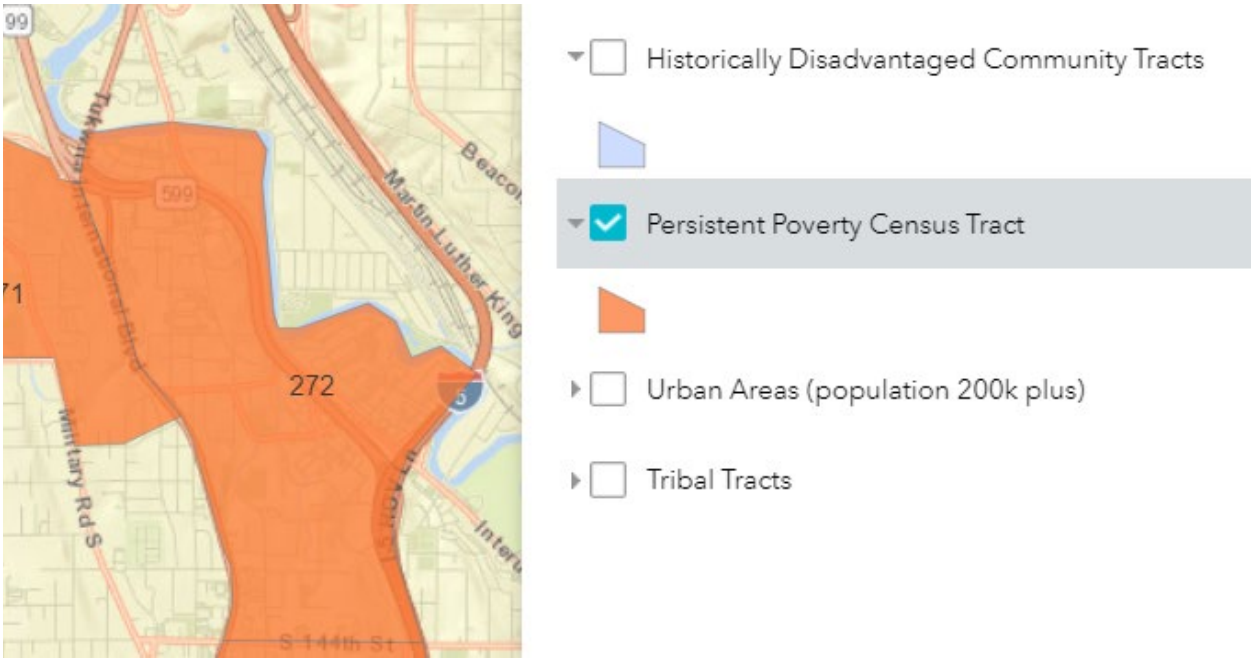
How to use RAISE Mapping Tool:

1. Access the Mapping Tool at: https://maps.dot.gov/BTS/GrantProjectLocationVerification/
2. Locate the project location by searching or zooming. Utilize the **"+" and "-" BUTTONS** in the upper left-hand to fit the full project scope within the display area.
3. Ensure all layers are active by checking the boxes via the **LAYER LIST** tab in the upper right-hand corner. Layers are zoom-dependent. If the label is greyed out in the legend, the layer is not showing on the map because it is not zoomed in far enough.
4. Refer to the **LEGEND** and/or the **LAYER LIST** tab in the upper right-hand corner to understand the color shading and designations for your project area.
5. The **BASEMAP GALLERY** tab in the upper right-hand corner provides viewing options including satellite imagery, terrain and topographical reference information, if needed.

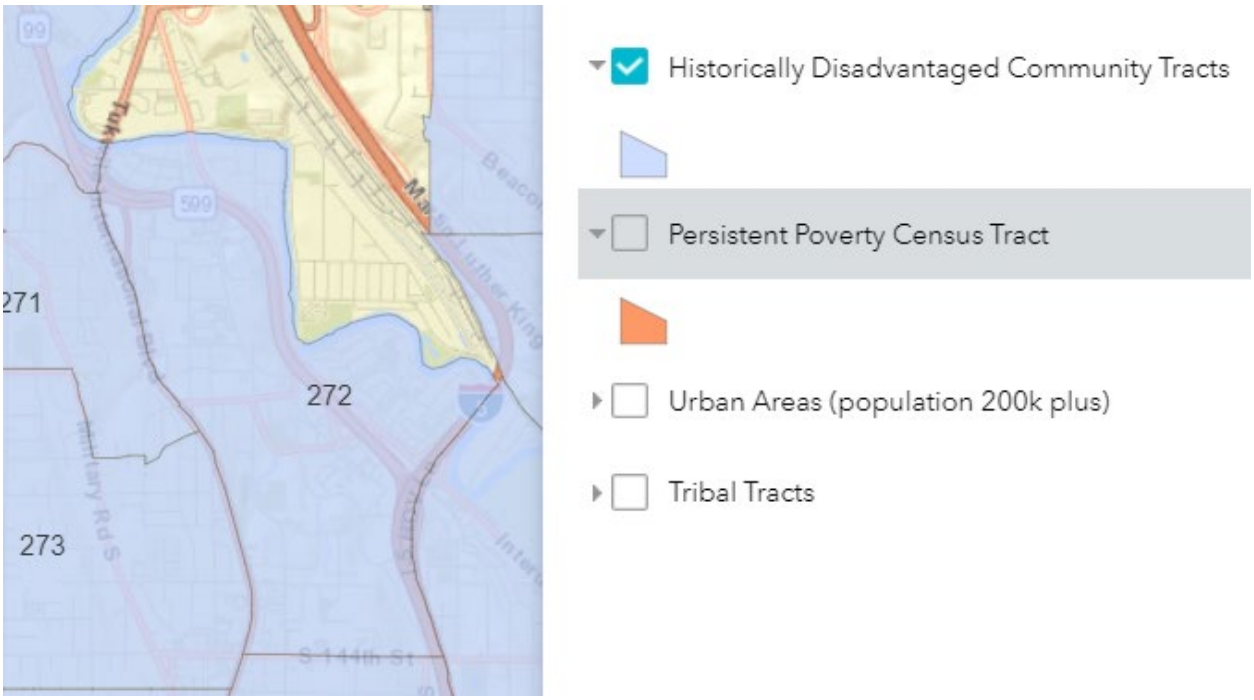
USDOT has also published **a table** to help applicants identify if a project meets these definitions.

A. State	B. County	C. Census Tract Name	E. APP - COUNTY Meets Definition?	F. APP - CENSUS TRACT Meets Definition?	G. HDC - CENSUS TRACT Meets Definition?
Washington	King County	Census Tract 272	No	Yes	Yes

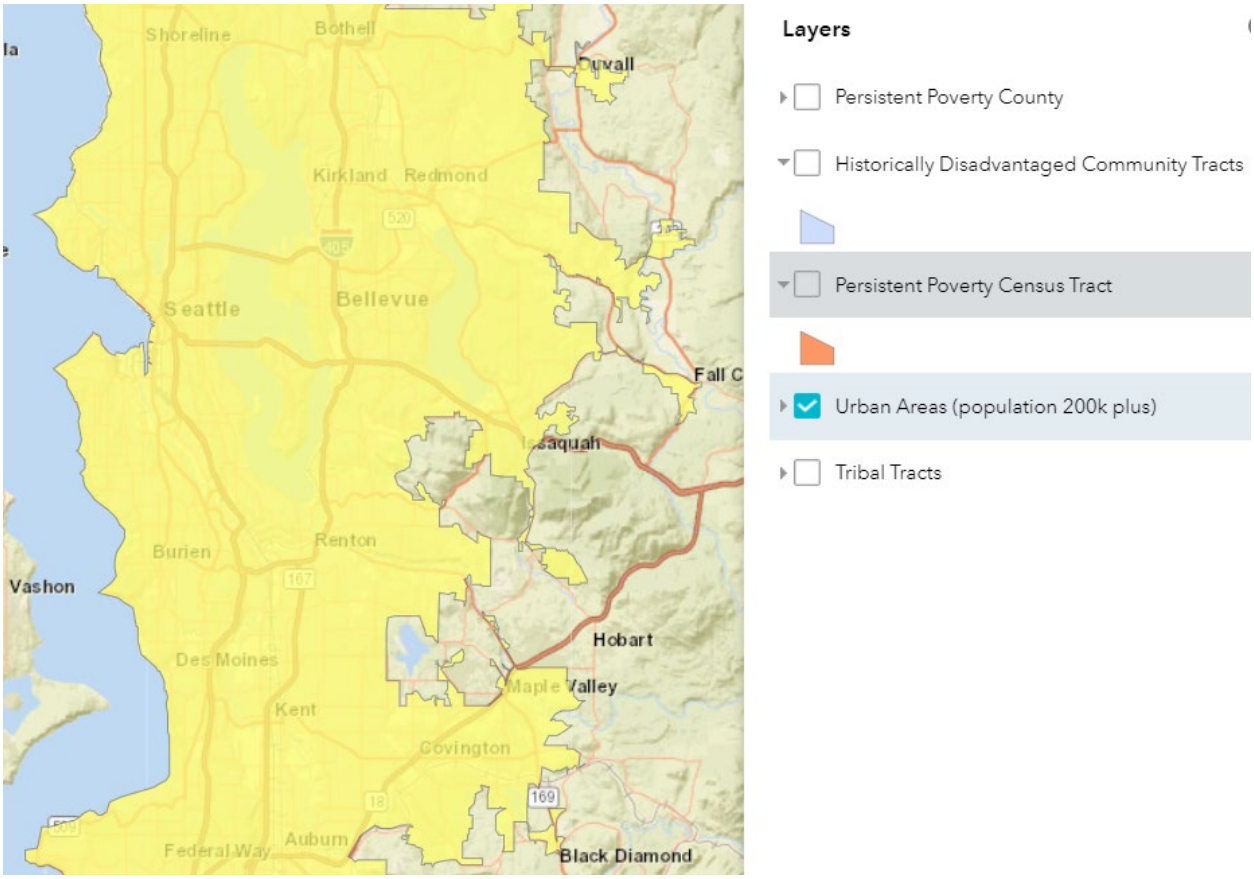
Area of Persistent Poverty



Area of Historically Disadvantaged Community



Designated Urban Area (population 200K plus)



RAISE Grant Environmental Risk Review

Introduction

King County Metro's South Annex Base project is a critical capital investment in infrastructure that will support stabilizing existing operations and create capacity for future service expansions. Metro completed concept-level planning studies to confirm technical feasibility of the South Annex Base project between 2018 and Spring 2020, including collaborating with other King County organizations, the City of Tukwila, and various community groups. This effort culminated in a project proposal that provides essential operational and maintenance functions to meet service expectations while incorporating specific project features that support environmental enhancement, sustainability, climate action, and equity and social justice initiatives.

The project is broadly supported by stakeholder groups. This environmental risk review demonstrates project readiness and discusses risk and mitigation of schedule-related impacts associated with permit approvals.

Section 1—Environmental Permits and Reviews

A. Information about the NEPA Status of the Project

Metro's South Annex Base project qualifies for a Documented Categorical Exclusion (DCE) under the National Environmental Policy Act (NEPA) pursuant to 23 CFR Part 771.118(d)(6). The NEPA DCE Worksheet was submitted to the Federal Transit Administration's (FTA) Region 10 staff on November 30, 2020 and received concurrence from FTA on March 23, 2021. FTA found, based on its review of the submitted Documented Categorical Exclusion (DCE) checklist and supporting studies, that the project will not significantly impact the natural, cultural, social, or economic environment. The project provides adequate mitigation for potential minor and *de minimis* impacts to air quality, noise and vibration, and wetlands related to construction activities and long-term operation of the project. The project will provide a net benefit for transit speed and reliability, environmental justice, biological resources, and water quality. No other environmental impacts are anticipated. No further NEPA review is required.

B. Information on Reviews, Approvals, and Permits by Other Agencies

A Section 404 Nationwide Permit and Section 401 Water Quality Certificate issued by the US Army Corps of Engineers (USACE) are required for work impacting on-site wetlands and streams. FTA completed Endangered Species Act (ESA) compliance. Section 106 consultation for ground-disturbing activities is required concurrent with the NEPA review process and has been completed. Both compliance items were completed during the NEPA process, led by FTA. No other Federal reviews, approvals, or permits are required for the project.

C. Environmental Studies Describing Project Impacts and Possible Mitigation

As part of the technical feasibility phase of work for South Annex Base, the following environmental studies were prepared to evaluate potential project impacts and recommend appropriate mitigation:

a. Air Quality Analysis. Project construction may result in short-term increases in fugitive dust and pollutants. Construction activities will implement appropriate best management practices to control and minimize air emissions consistent with Puget Sound Clean Air Agency standards. Diesel-engine or hybrid diesel-electric vehicles will have required emission control systems and will eventually be replaced with a battery-electric bus fleet. The project is below the threshold for a quantitative air quality analysis and is not predicted to result in new air quality impacts.

b. Biological Assessment with ESA Checklist. Potentially occurring ESA-listed fish, bird, and mammal species are identified on and in the vicinity of the site, but no individuals of these species or suitable habitat for these species were identified or mapped on the project site or vicinity. Two branches of Riverton Creek flow across the site in underground pipes and confined channels. Riparian conditions are degraded due to existing development and infrastructure. The system lacks habitat elements necessary to support listed species.

c. Critical Areas Report. Existing critical areas on and in the vicinity of the site include the East Branch of Riverton Creek, the West Branch of Riverton Creek, and Wetland A. All three features are tidally influenced by the Duwamish River. Impacts to these features are unavoidable due to proposed Riverton Creek restoration efforts. Impacts will be minimized by limiting development to within the existing footprint of the facilities. All temporary impacts will be restored following construction.

d. Cultural Resources Analysis. The project will not impact recreational properties that would trigger a Section 4(f) evaluation. A cultural resources inventory was conducted to support a Section 106 consultation. The archaeological survey performed for the inventory found no significant archaeological resources and no further studies are recommended. No buildings over 45 years of age will be physically or visually impacted by the project and an architectural inventory was not required.

e. Daylighting Feasibility Report. The project includes daylighting the East and West Branches of Riverton Creek and installing three fish-passable culverts to improve fish passage in the Riverton Creek system. Approximately 940 linear feet of the creek will be daylighted and approximately 0.5 acre of riparian vegetation will be restored. Daylighting results in improved instream habitat, water quality, and fish passage.

f. Environmental Justice Analysis. Environmental Justice (EJ) populations, including minority populations and low-income populations. The project is anticipated to result in a net benefit to the community, including the EJ populations, by supporting Metro's existing and planned transit service, supporting construction jobs and other multiplier economic benefits during construction, providing family-wage jobs, other providing environmental enhancements. The project will not result in any disproportionately high and adverse effects on EJ populations. Any impacts will be *de minimis,* blending into existing background traffic, air quality, and ambient noise in the vicinity.

g. Geotechnical Engineering Report. The site soils have a moderate to high liquefaction susceptibility. A shallow groundwater table indicates a moderate to high risk of structural damage from soil settling as a result of an earthquake. Foundation alternatives and soil amendments or other stabilization features will mitigate liquefaction potential and geotechnical hazards.

h. Noise and Vibration Analysis. There are no FTA Category 1, 2, or 3 properties (sensitive receivers) within the recommended screening distance for a maintenance base. The project will comply with applicable noise standards, including the City of Tukwila noise ordinance. Noise levels will not exceed FTA criteria or City of Tukwila limits. Mitigation includes project design features, best management practices, and other mitigation commitments and no noise impacts are anticipated. Vibration levels are not predicted to result in any impacts. Best management practices will be implemented during construction to manage any potential temporary impacts related to the project.

i. Phase 1 and Phase 2 Environmental Site Assessments. Contamination from a leaking underground storage tank on Metro's neighboring South Facilities site was remediated in the mid-1990s. The South Facilities site is on the same parcel as the South Annex Base project but will not be disturbed during construction of the project. Metro is pursuing a No Further Action (NFA) decision from the Department of Ecology for this site. No contaminant concentrations in soil borings exceeding cleanup criteria were identified on the South Annex Base site and no further investigation or cleanup of the project area are required. Construction and operations will be managed to ensure regulatory compliance for any hazardous materials, including the use of appropriate best management practices, a spill prevention, control, and countermeasures plan, and a stormwater pollution prevention plan.

j. Stormwater Technical Memo. The project site consists of approximately 13 acres of pollution-generating impervious and pervious surfaces. The proposed redevelopment includes upgrading site stormwater and runoff treatment facilities to comply with the 2016 King County Surface Water Design Manual, including managing stormwater flow

control and water quality. Following construction, the project site will have a net reduction of approximately 3,000 square feet of pollution generating impervious and pervious surfaces.

k. Traffic Study. South Annex Base is expected to generate approximately 1,630 daily vehicle trips to and from the site. Approximately 110 trips will occur during the AM peak hour and approximately 82 will occur during the PM peak hour. Peak bus movements will occur outside of peak commute hours. Traffic operations are expected to meet City of Tukwila standards for intersection levels of service (LOS). Proposed signalization and frontage improvements will enhance safety for pedestrians and bicyclists in the project vicinity.

The studies identify potential project impacts and risks and include recommendations for mitigation and project design features. The proposal incorporates all applicable recommendations for mitigation and design to ensure impacts and risks are minimized. Studies are available for review at upon request.

D. Description of Discussion with WSDOT

The SAB project is not on a state right-of-way and does not impact state DOT-managed routes. No right-of-way acquisition is required; King County owns the SAB project property. Some project elements, however, extend into WSDOT and City of Tukwila rights-of-way. WSDOT will issue a permit for restoration of Wetland A. Frontage improvements and signalization will occur in the City of Tukwila's E Marginal Way right-of-way. Metro will acquire a temporary construction easement. Upgrades to pavement and culverts in South 120th Place, a private roadway access easement, are proposed and will be coordinated with the property owner.

E. Public Engagement and Integration into Project Design

King County Metro conducted a community outreach meeting with stakeholder organizations in the region, including a roundtable meeting and site visit to initiate. The meeting focused on equity and social justice measures that could be implemented as part of the project design and construction, in compliance with King County's internal policies. These equity and social justice measures provide discrete benefits tailored to community preferences and are largely related to environmental improvements. Community comments have been integrated into the project design by including daylighting and culvert upgrade site features that will support improved habitat functionality within the Riverton Creek system.

Metro has also had ongoing conversations with the City of Tukwila to identify major project concerns and permitting requirements. Meetings have focused on environmental improvements in the Riverton Creek system. Their comments have been integrated into the project design by including daylighting and culvert upgrade site features that will support improved habitat functionality within the Riverton Creek system. The project will daylight the East and West

Branches of Riverton Creek where they flow through the site and will upgrade road culverts to meet fish passage standards published by the Washington Department of Fish and Wildlife (WDFW).

A plan for additional public outreach has been developed for South Campus activities in general and for the South Annex Base project specifically. The plan will be implemented by Metro during subsequent stages of design, from 30 percent through construction. The plan outlines anticipated outreach activities, including virtual community and stakeholder meetings, interactive online open houses, community mailers, and informational signage and an information booth at Metro's South Campus. The communications plan for South Annex Base also addresses ongoing coordination with the City of Tukwila.

Section 2—State and Local Approvals

A permitting strategy and estimated schedule have been prepared for the project to provide an efficient review process for the duration of the permitting efforts. These have been integrated into the project schedule to minimize or eliminate delays associated with state and local permitting processes. The current project schedule estimates entitlement and permit submittal when 90% design level project plans and technical studies are complete. Evidence of state and local support can be found in letters available for review at this link.

A. State Approvals

In addition to Federal reviews, and approvals, the proposal will trigger State permits and approvals under multiple agencies prior to beginning construction work, including:

- Washington Department of Ecology (WDOE). WDOE will issue a Section 401 Water Quality Certification and a Construction Stormwater General Permit prior to construction activities beginning on site.
- Washington Department of Fish and Wildlife (WDFW). WDFW will issue a Hydraulic Project Approval for work in Riverton Creek and Wetland A.
- Washington State Department of Transportation (WSDOT). WSDOT will issue a right-of-way permit for work in Wetland A.

King County Metro has been in contact with WDOE to discuss the proposed daylighting and culvert replacement components of the project.

B. King County Approvals

The proposal will trigger reviews by other departments within King County; King County will act as Lead Agency to perform State Environmental Policy Act (SEPA) review. Specific permits and approvals are customarily initiated by contractors performing work in King County

when preparing to mobilize on the site. SEPA compliance will consist of adopting NEPA documents consistent with State law and SEPA rules promulgated by the Washington Department of Ecology. SEPA review will be completed when project design has advanced further.

C. City of Tukwila Approvals

The proposed South Annex Base project is consistent with the City of Tukwila's Comprehensive Plan and zoning code and will be designed to be consistent with applicable design, dimensional, parking, access, stormwater, and environmental regulations in effect at the time of permit submittal. City of Tukwila entitlements and construction permits will be required for the work, including an Unclassified Use Permit to approve the proposed land use and several administrative entitlements to approve various project components. All entitlements must be approved prior to beginning construction activities. Construction permits must be approved and issued prior to beginning activities specifically authorized under that permit (i.e., demolition, site grading, construction, etc.).

Section 3—Federal Transportation Requirements Affecting State and Local Planning

Project risks are minimal, based on the technical feasibility and environmental studies and the NEPA process being complete.

1. Unclassified Use Permit. The biggest remaining risk is the City of Tukwila Unclassified Use Permit (UUP) process. This is a City Council application action that could include conditions of approval that respond to unknown political priorities. Conditions of approval may require costly last-minute project changes and City Council could extend the hearing process longer than anticipated. To mitigate this risk, Metro has engaged City staff in the Department of Community Planning and the Department of Public Works to discuss design approach and project components and to ensure staff can recommend approval or approval with reasonable conditions.

2. Local Permits for Daylighting Riverton Creek. Daylighting Riverton Creek is an aspect of the project for which permitting requirements are not clearly defined by the City of Tukwila. The City is also working under newly revised critical areas regulations. Lack of clarity and staff familiarity could cause permitting delays and/or impact the design of the daylit stream sections. This is a high-priority project component for the City and mitigation includes close coordination with City staff to verify applicable code requirements and permit processes.

3. Shallow Groundwater Table and Stormwater Requirements. The high water table (as shallow as 3.72 feet below the ground surface) combined with required compliance with the City of Tukwila's adopted Stormwater Management Manual (2016 King County Surface Water Design Manual, or as updated prior to permit submittal) could impact stormwater management strategies and result in increased costs. Initial stormwater review occurs with the UUP,

followed by a second review with construction permits. Approval is not vested through the UUP review and delays in submitting construction permits could trigger last-minute design changes if stormwater requirements are changed by the City of Tukwila. Mitigation includes discussion with the City of Tukwila Department of Public Works to remain updated of potential changes to stormwater regulations and timely submittal of construction permits after approval of the UUP.

4. Construction Price Escalation. Construction prices are anticipated to escalate over the course of project design. Escalation and contingency costs are incorporated into King County Metro's budget for this project.

5. Property Owner Agreements. Culvert upgrades and roadway upgrades along the S 120th Place private road will require coordination with and authorization from the adjacent property owner(s). Reaching an agreement could be a lengthy process and the property owner may desire design changes that could impact project costs. To mitigate this risk, Metro has engaged the adjacent property owner in discussions about the project, including obtaining site access agreements for minor site exploration necessary for the culvert and roadway improvements.

U.S. Department
of Transportation
**Federal Transit
Administration**

REGION X
Alaska, Idaho, Oregon,
Washington

915 Second Avenue
Federal Bldg. Suite 3142
Seattle, WA 98174-1002
206-220-7954
206-220-7959 (fax)

March 23, 2021

Terry White
General Manager
King County Metro Transit
King Street Center
201 South Jackson Street, Room 415
Seattle, WA 98104-3856

**Subject: King County Metro Transit
South Annex Base Project
National Environmental Policy Act
Documented Categorical Exclusion Confirmation**

Dear Mr. White:

The Federal Transit Administration (FTA) has reviewed the materials King County Metro Transit (Metro) submitted by e-mail on February 28, 2020, and subsequently through February 3, 2021, including an FTA Documented Categorical Exclusion (DCE) worksheet and supporting documentation describing the proposed South Annex Base Project (Project) in Tukwila, Washington. FTA understands that the Project would redevelop a Metro-owned property, referred to as the South Annex, by removing existing structures and constructing a new bus base for approximately 250 hybrid- and all-electric buses. The Project is located at 11911 East Marginal Way South in Tukwila, on a site that currently operates as a training and safety facility for bus operators. The Project includes demolition of all existing buildings, installation of new underground and above ground utilities, construction of new structures, and repaving. The Project also includes day-lighting of two piped branches of Riverton Creek. FTA further understands that as part of the Project, Metro will implement the mitigation measures outlined in Attachment A to this letter.

Under Section 106 of the National Historic Preservation Act (Section 106), and pursuant to 36 Code of Federal Regulations (CFR) Part 800, FTA consulted with the Washington State Historic Preservation Officer (SHPO). On January 5, 2021, in correspondence to SHPO, FTA determined that no historic properties will be affected as a result of the Project. FTA received SHPO concurrence with this determination on January 13, 2021.

Project improvements would be limited to the Metro-owned South Annex property, and to areas within the immediately adjacent public street right-of-way. The Project will not result in the use of any resources protected by Section 4(f) of the Department of Transportation Act of 1966.

The Project site is located within a highly developed urban landscape, surrounded by roadways and light industrial and residential land uses, that does not provide suitable habitat for species listed on the Endangered Species Act (ESA). Two branches of Riverton Creek are piped underneath the Project site and discharge into a freshwater tidal wetland/stream complex along the northern property boundary, within the adjacent State Route 599 highway right-of-way. Riverton Creek ultimately flows into the Duwamish River approximately 0.3 mile downstream of the Project site, however, the two piped branches of Riverton Creek at the Project site do not provide suitable fish habitat. The Project will have no effect on any ESA-listed species or designated critical habitat, and no effect on essential fish habitat as outlined in the Magnuson-Stevens Fishery Conservation and Management Act.

Based on a review of the submitted documentation, FTA has determined that the Project qualifies as a DCE under the National Environmental Policy Act (NEPA) pursuant to 23 CFR Part 771.118(d). This determination of DCE applies only to the proposed South Annex Base Project as described above and in the documentation submitted to FTA from February 28, 2020 through February 3, 2021, and is contingent on Metro implementing the mitigation measures outlined in Attachment A to this letter. Should the Project scope change or new information on the Project or its potential environmental effect be provided, FTA may require a re-evaluation of the NEPA determination and may withdraw or suspend the DCE or require additional environmental reviews.

This confirmation is not an expressed or implied promise that Federal financial assistance for the Project will be awarded. Please contact Mark Assam at 206-220-4465 or mark.assam@dot.gov if you have any questions.

Thank you for coordinating with FTA.

Sincerely,

LINDA M GEHRKE Digitally signed by LINDA M GEHRKE Date: 2021.03.23 15:00:56 -07'00'

Linda M. Gehrke
Regional Administrator

cc: Gillian Zacharias, Senior Environmental Planner, King County Metro Transit

Enclosure: Attachment A, King County Metro Transit, South Annex Base Project, National Environmental Policy Act, Documented Categorical Exclusion Confirmation, Mitigation Measures, March 23, 2021

Attachment A

King County Metro Transit
South Annex Base Project
National Environmental Policy Act
Documented Categorical Exclusion Confirmation
Mitigation Measures
March 23, 2021

King County Metro Transit (Metro) will follow all relevant federal, state, and local regulations related to construction and operation of the South Annex Base Project (Project). Metro will also develop and implement appropriate Best Management Practices (BMPs) prior to construction for water quality, erosion, hazardous materials, and air quality. The following measures will be implemented as part of the Project to avoid or minimize impacts during construction:

Businesses and Residents

Metro will implement the following mitigation measures to minimize impacts of the Project on nearby residential neighborhoods and businesses:

- Metro will implement the Public Outreach Strategy prepared for South Campus projects, including specific outreach methods identified for South Annex Base.
- Metro will maintain access to all adjacent properties during the period of construction. During Project phases affecting access, Metro will provide detour signage to assist residents, employees, and visitors to affected buildings or properties.
- Metro will minimize utility disruptions as much as possible, including performing utility connections outside of regular working hours when necessary. If utility disruptions are necessary, Metro will notify business and residents in advance of utility work.
- Metro will provide fair compensation, as determined by a qualified appraiser pursuant to Chapter 8.26 Revised Code of Washington (RCW) Relocation Assistance – Real Property Acquisition Policy, to the owners of properties for which Metro requires temporary construction easements.
- Metro will restore temporary construction easement areas to their pre-construction condition or better when use of the easement area is complete.

Traffic

Metro will implement the following mitigation measures to minimize traffic-related impacts resulting from construction of the Project:

- During Project construction phases requiring temporary travel lane, bicycle lane, and/or sidewalk closures, Metro will provide traffic control and/or alternative routes along East Marginal Way South that are clearly marked.

- Metro will require certified flaggers to be present during construction hours when construction vehicles and/or delivery vehicles are active on the Project site. Metro will require the use of certified flaggers to control construction trucks and equipment entering and exiting the Project site onto city streets for movements involving backing onto, along, or out of South 120th Place or the Project site.
- Metro will require parking of equipment or vehicles associated with the Project to be within the Project site boundaries or at authorized off-site locations. Metro will not allow construction vehicle parking on city rights-of-way or private roadways unless by mutual agreement between Metro and the City of Tukwila or other entities with applicable rights.
- Metro will obtain all required right-of-way permits for construction activities and comply with conditions of approval during construction.

Air Quality

The Puget Sound Clean Air Agency requires the implementation of BMPs to minimize the impacts of fugitive dust and emissions resulting from construction activities:

- Metro will require the contractor to spray exposed soils with a dust control agent, such as water, as necessary to reduce emissions and deposition of particulate matter.
- Metro will require contractors to cover all loads of soil and wet materials before transport or provide adequate freeboard to reduce emissions and deposition of particulates during transport.
- Metro will provide wheel washes to reduce dust and mud that would be carried off-site by vehicles and decrease particulate matter on area roadways.
- Metro will provide regular street sweeping coordinated with the City of Tukwila to remove the dust and mud that are deposited on paved, public roads.
- Where practicable, Metro will require the contractor to route and schedule high volumes of construction traffic to reduce additional congestion during peak travel periods and reduce vehicle emissions.
- Metro will require appropriate emission-control devices on all construction equipment powered by gasoline or diesel fuel to reduce vehicle exhaust emissions.
- Metro will require the contractor to use well-maintained vehicles and heavy equipment to reduce emissions.
- Metro will require the contractor to cover, install mulch, or plant vegetation on exposed soils as soon as practicable after grading to reduce windblown particulate matter.
- Metro will encourage contractors to employ emission-reduction technologies and practices for both on-road and off-road equipment and vehicles.
- Metro will implement idling restrictions for construction trucks and equipment.

- Metro will require all stationary equipment used for construction activities to comply with Puget Sound Clean Air Agency regulations requiring the best available measures to control the emissions of odor-bearing air contaminants.

Noise and Vibration

Construction of the Project is required to comply with applicable noise regulations adopted by the City of Tukwila in Tukwila Municipal Code (TMC) Chapter 8.22 Noise. Metro will implement the following mitigation measures to minimize noise and vibration impacts related to construction of the Project:

- Metro will require the contractor to consider operational methods, scheduling, equipment choice, and acoustical treatments to reasonably reduce noise generated by construction activities, vehicles, and equipment.
- Metro will require the contractor to use, where practicable, low-noise equipment and tools.
- Metro will require the contractor to manage truck loading and operations to implement noise abatement measures such as bed liners, prohibition on tailgate banging, and the use of ambient-sensitive backup alarms (i.e., self-adjusting and/or directional backup alarms).
- Metro will require the contractor to use well-maintained vehicles and heavy equipment to reduce potential noise impacts.
- Metro will require the use of lined or covered storage bins, conveyors, and chutes.
- Metro will limit, as much as practicable, noisy nighttime construction activities. Any nighttime construction activities must comply with additional noise level restrictions set forth in TMC 8.22. Metro will prohibit jackhammering during nighttime hours.
- Metro will obtain any required noise variances required for construction activities and comply with conditions of approval during construction.
- Metro will require the contractor to consider, where practicable, the use of alternative construction methods or equipment to reduce vibration, such as the use of static roller compactors instead of vibratory compactors.
- Metro will require, where practicable, activities with potential for vibration impact to be restricted to shorter periods and daytime hours when vibrations and noise are less noticeable.

Cultural Resources

Metro has prepared an Inadvertent Discovery Plan (IDP) and will distribute the IDP at a pre-construction meeting, require the contractor to keep a copy at all construction locations, and require the contractor and all on-site personnel to follow the plan during construction.

Biological Resources and Water Quality

Project construction will be conducted in and adjacent to the East and West Branches of Riverton Creek, and the associated wetland along the northern property boundary, to daylight the streams and install upgraded fish-passable culverts. Metro will implement the following BMPs to reduce impacts to the streams and wetland:

- Metro will require compliance with approved Temporary Erosion and Sediment Control (TESC) Plans, including installation and regular maintenance of TESC measures.
- Metro will require the contractor to stake clearing limits with high-visibility construction fencing to protect critical areas and avoid unnecessary vegetation removal prior to beginning grading activities on the Project site.
- Metro will require compliance with an approved Stormwater Pollution Prevention Plan (SWPPP) and a Spill Prevention Control and Countermeasure (SPCC) Plan. Fluids associated with construction equipment will be kept in spill-proof containers away from waterbodies and buffers, and equipment will be maintained and monitored for potential leaks.
- Metro will require Project design to minimize the amount of exposed soils to reduce the potential for erosion and soil mobility. Metro will require exposed soils to be covered, mulched, or planted as soon as practicable after grading.
- Metro will obtain all required permits and approvals from the Washington Department of Ecology, Washington Department of Fish and Wildlife, U.S. Army Corps of Engineers, and National Marine Fisheries Service prior to beginning construction activities, and will comply with all conditions of approval including potential in-water work windows, stream bypass requirements, and dewatering requirements.
- Metro will require restoration plantings to be installed in the first fall season following construction, or will require the installation of irrigation to allow earlier installation of restoration plantings.
- Metro will restore temporary impact areas to existing or better conditions in accordance with City of Tukwila regulations.

Debris Disposal

- Metro will dispose of debris, including unanticipated contaminated soil or hazardous materials generated from demolition and clearing activities at properly licensed off-site locations.

Lighting

- All lights will be downshielded, directed inward, diffused, or otherwise oriented or installed to prevent light spillover onto adjacent properties and rights-of-way as much as practicable while still meeting safety standards on the Project site.

FEDERAL TRANSIT ADMINISTRATION
REGION 10
(covering Alaska, Idaho, Oregon, and Washington)

CATEGORICAL EXCLUSION / DOCUMENTED CATEGORICAL EXCLUSION WORKSHEET

The purpose of this worksheet is to assist project sponsoring transit agencies in the states of **Alaska, Idaho, Oregon, and Washington** in gathering and organizing materials for environmental analysis required under the National Environmental Policy Act (NEPA) – particularly for projects that may qualify as a Categorical Exclusion (CE) or Documented Categorical Exclusion (DCE) under 23 Code of Federal Regulations (CFR) Part 771.118 – to support a recommendation. The use and submission of this worksheet is NOT required. The worksheet is provided as a helpful tool for assembling information needed by the Federal Transit Administration (FTA) to determine the likelihood and magnitude of potential project impacts to the environment.

NOTE: Worksheet fields are expandable. Feel free to use more than a line or two, if needed. You may also reference and attach additional information such as technical memoranda, maps, or photographs for the project.

Submission of this worksheet does not satisfy NEPA requirements. FTA must concur in writing in the sponsoring agency's NEPA recommendation, as appropriate. Project activities may not begin until this process is complete and FTA has provided written concurrence. FTA encourages you to review the document "Guidance for Implementation of FTA's Categorical Exclusions (23 CFR 771.118)" available online here: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/guidance-implementation-ftas-categorical-exclusions.

Please contact the FTA Region 10 office at (206) 220-7954 if you have any questions or require assistance. For submittal procedures, please see information at the end of this document. For links to other agencies or for further topical guidance, please go to FTA's website on Environmental Programs, https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/environmental-programs.

DISCLAIMER: *The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies. Grantees should refer to applicable regulations and statutes referenced in this document.*

I. Project Description

Sponsoring Agency	Date Submitted	FTA Grant Number(s) (if known)
King County Metro Transit Department	**DRAFT** Feb. 2, 2021	TBD

Project Title
King County Metro South Annex Base

Project Description (brief, 1-2 sentences)

King County Metro (Metro) is proposing to expand its base capacity to house, operate, and maintain a new fleet of approximately 250 battery electric buses (BEBs). Metro owns the subject site which contains the South Base Training and Safety Center and South Construction Office, which will be relocated (Figure 1 – Vicinity Map, and Figure 2 – Existing Conditions). The site will be redeveloped as the South Annex Base. South Annex Base will be a self-contained maintenance and operations base adjacent to South Base to the east. South Annex Base will have an overhead electrical charging system for BEBs, a maintenance and repair building, office space, parts storage, operations space for coach drivers and administration; and on-site fuel, wash, and steam bays.

Purpose and Need for Project (Please provide a brief statement. You may include this information as an attachment if the statement is lengthy.)

The need for the project stems from long-term trends of rising ridership demand and King County goals of limiting greenhouse gas emissions and addressing equity and social justice in underserved areas like South King County. Metro is at or near capacity at existing bases. Demand for service has grown consistently over the last decade (excepting current impacts of the coronavirus pandemic) and the lack of capacity limits the ability to expand service even in the short term. Constructing the South Annex Base for BEBs will support the agency's long-term goal of transitioning to a zero-emission bus fleet, which is part of the County's effort to combat climate change. South Annex Base will support service expansion in the south part of the county, which has higher concentrations of low-income and minority populations and which is planned to receive expanded service.

Project Location (Please include street address, city, and state of the project location.)

The project site is shown on Figure 1 – Vicinity Map at 11911 E Marginal Way S (Parcel #1023049066) in the City of Tukwila, King County, Washington. It is located in Section 10, Township 23 North, Range 04 East of the Public Land Survey System, and in Water Resource Inventory Area (WRIA) 9 (Duwamish-Green). The South Annex Base site is in the Riverton Creek sub-basin of the Duwamish River watershed.

Project Contact (Please include the name, phone number, email address, and mailing address for the submitter of this worksheet.)

Gillian Zacharias
King County Metro Transit Department
201 S. Jackson Street
Seattle, WA 98104

Email: gillian.zacharias@kingcounty.gov
Phone: 206-477-7915

If your project involves construction, please include the following as appropriate:

- Project vicinity map
- Project site plan(s) showing project features, access points, and project boundaries
- Other useful maps as appropriate (topographic maps, aerial photographs, Environmental Protection Agency [EPA] NEPAssist maps, etc.)
- Photographs of the site if useful to illustrate important features
- Details on the depth and extent of soil excavation proposed for the project
- Additional information if the soil has been previously disturbed by prior construction or other activity
- List of parks or recreation areas within the project vicinity
- List of any previous consultations that might be relevant (e.g., with other federal, state, or local agencies)

II. NEPA Class of Action

Please answer the following questions to determine the project's potential NEPA Class of Action. If the answer to any of the questions in **Part II.A, questions A.1 through A.4 below** is "Yes", contact your assigned FTA Region 10 Grant Representative to discuss whether the project requires preparation of a NEPA Environmental Assessment (EA) or Environmental Impact Statement (EIS).

A.1 Will the project significantly impact the natural, social, and/or economic environment?

☐ Yes (If selected, please contact your assigned FTA Region 10 Grant Representative.)

☒ No

A.2 Is the significance of the project's social, economic, or environmental impacts unknown?

☐ Yes (If selected, please contact your assigned FTA Region 10 Grant Representative.)

☒ No

A.3 Is the project likely to require detailed evaluation of more than a few potential impacts?

☐ Yes (If selected, please contact your assigned FTA Region 10 Grant Representative.)

☒ No

A.4 Is the project likely to generate intense public discussion, concern, or controversy, even though it may be limited to a relatively small subset of the community?

☐ Yes (If selected, please contact your assigned FTA Region 10 Grant Representative.)

☒ No

B. Does the project type fall into any of the following Categorical Exclusions (CEs)?

☐ Yes (If selected AND there are no unusual circumstances, please check the applicable CE box below and continue to **Part III. Project Information Required for CEs and DCEs** of this form.)

☒ No (If selected, please continue to **Part II.C Does the project type appear similar to any of the following Documented Categorical Exclusion (DCE) examples?** of this form.)

The types of activities listed below describe actions which, when the corresponding conditions are met, are categorically excluded from further NEPA analysis under 23 CFR Part 771.118(c). Unusual circumstances may prevent the use of these CEs, and may include, but are not limited to, the presence of wetlands, historic buildings and structures, parklands, or floodplains in the project area, or the potential for the project to impact other resources. (You may look up detailed descriptions of each type of activity, and corresponding conditions at the guidance document here: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/guidance-implementation-ftas-categorical-exclusions.)

23 CFR Part 771.118(c)(1 through 16)

☐ (1) Utilities and Similar Appurtenances

☐ (2) Recreation, Pedestrian, or Bicycle Facilities

☐ (3) Environmental Mitigation or Maintenance of Environmental Quality and Site Aesthetics

☐ (4) Planning and Administrative Activities (No construction activities)

☐ (5) Activities Promoting Transportation Safety, Security, Accessibility, and Communication

☐ (6) Acquisition or Transfer of Real Property Interest

☐ (7) Acquisition, Rehabilitation, Maintenance of Vehicles or Equipment

☐ (8) Maintenance, Rehabilitation, Reconstruction of Facilities

☐ (9) Assembly or Construction of Facilities

☐ (10) Development of Facilities Adjacent to Existing Transit Facilities

☐ (11) Emergency Recovery Activities
(Several conditions are attached to this type of CE. Please consult with FTA Region 10 Office if you think this CE may apply to your project.)

☐ (12) Projects Entirely within the Existing Operational Right-of-Way

☐ (13) Projects with Limited Federal Funding
(Must be less than $5 million in federal funding, or having a total estimated cost of not more than $30,000,000 and federal funds comprising less than 15 percent of the total estimated project cost. Please consult with FTA if you think this CE may apply to your project.)

☐ (14) Bridge Removal and Related Activities

☐ (15) Preventative Maintenance to Certain Culverts and Channels

☐ (16) Geotechnical and Similar Investigations

C. Does the project type appear similar to any of the following Documented Categorical Exclusion (DCE) examples?

☒ Yes (If selected, please check the applicable DCE example box below and continue to **Part III. Project Information Required for CEs and DCEs** of this form.)

☐ No (If selected, please contact your assigned FTA Region 10 Grant Representative, as further discussion about the project may be necessary prior to initiating NEPA review.)

Projects that are categorical exclusions under 23 CFR Part 771.118(d) require additional documentation demonstrating that the specific conditions or criteria for the categorical exclusions are satisfied and that significant effects will not result.

23 CFR Part 771.118(d)(1 through 8)

☐ (1) Modernization of a highway by resurfacing, restoring, rehabilitating, or reconstructing shoulders or auxiliary lanes.

☐ (2) Bridge replacement or the construction of grade separation to replace existing at-grade railroad crossings.

☐ (3) Acquisition of land for hardship or protective purposes.
(Hardship and protective buying will be permitted only for one or a limited number of parcels, and only where it will not limit the evaluation of alternatives (including alignments) for planned construction projects.)

☐ (4) Acquisition of right-of-way.
(No project development such as final design or construction activities on the acquired right-of-way may begin until the NEPA review process for such project development, including the consideration of alternatives, where appropriate, has been completed.)

(5) [Reserved]

☒ (6) Facility modernization through construction or replacement of existing components.

☐ (7) Minor transportation facility realignment for rail safety reasons.

☐ (8) Facility or structure modernization or minor expansion outside existing right-of-way.

☐ "Other" actions which meet the criteria for a CE in the CEQ regulations (40 CFR part 1508.4) and will not result in significant environmental effects. Actions must not: induce significant impacts to planned growth or land use; require the relocation of significant numbers of people; have a significant impact on any natural, cultural, recreational, historic or other resource; cause significant air, noise, or water quality impacts; have significant impacts on travel patterns; or otherwise have significant environmental impacts (either individually or cumulatively).

III. Project Information Required for CEs and DCEs

1. If you selected "Yes" in **Part II.B Does the project type fall into any of the following Categorical Exclusions (CEs)?** above, and checked any of the CE options under 23 CFR Part 771.118(c)(1 through 16):
    a) Complete **Part III.A Detailed Project Description** below.
    b) Review the remaining subject areas (**Part III.B Location and Zoning - Part III.AA Related Federal and State/Local Actions**). If any of these subject areas is relevant to demonstrating your project has no significant impacts or unusual circumstances, please enter a brief description within the box for that subject area, otherwise enter "N/A".
    c) Complete the "**Submitted By**" and "**Date**" boxes at the end of the form and submit electronically to your assigned FTA Region 10 Grant Representative according to the instructions at the end of this form.
2. If you selected "Yes" in **Part II.C Does the project type appear similar to any of the following Documented Categorical Exclusion (DCE) examples?** above, and checked any of the DCE examples under 23 CFR Part 771.118(d)(1 through 8):
    a) Complete **Part III.A Detailed Project Description** below.
    b) Complete each of the remaining subject areas (**Part III.B Location and Zoning - Part III.AA Related Federal and State/Local Actions**) that are relevant to your project. Depending on the details of your project, some of the subject areas may not be applicable. In such cases, no discussion is needed, simply enter "N/A". You may reference and attach documents prepared for other purposes (e.g., public meetings) if they are helpful.
    c) Complete the "**Submitted By**" and "**Date**" boxes at the end of the form and submit electronically to your assigned FTA Region 10 Grant Representative according to the instructions at the end of this form.

NOTE: The subject areas list below is not all-inclusive. If your project has the potential to cause impacts to resources which are not listed below, please provide supplemental information about those potential impacts.

A. Detailed Project Description

Please describe the project and explain how it satisfies the "Purpose and Need for Project", as provided in **Part I. Project Description**.

Metro is proposing to redevelop an underused Metro site that is part of Metro's South Campus in the City of Tukwila (Figure 3 – King County Metro South Campus). The site is the current home of Metro's South Base Training and Safety Center and South Construction Office. A new base, the South Annex Base, is designed to accommodate approximately 250 hybrid diesel-electric and BEBs, eventually transitioning to an all-electric fleet. South Annex Base will be a self-contained maintenance and operations base, but employee parking will be on the South Base, across E Marginal Way S to the east. The project will meet the purpose and need as described below:

- Metro's base facilities are at capacity at the same time that long-term demand for transit service continues to rise, particularly in the south county area. A new base will be able to meet projected demand by accommodating approximately 250 hybrid-electric coaches.
- Because of existing limited base capacity, without a new base it is not possible to build all-electric infrastructure without curtailing transit service during construction, even if demand for expansion were zero. The new base will incorporate electric charging infrastructure and allow seamless future conversion to an all-electric fleet.
- King County goals, policies, and plans prioritize the reduction of green house gas emissions (e.g., Strategic Climate Action Plan) and the redress of inequities and social injustice within our communities. The South Annex Base will meet the needs expressed in the County's climate goals by building, maintaining, and operating with the highest green building and sustainable development practices consistent with King County's Green Building Ordinance (#17709). The design goal is to achieve LEEDv4 Platinum certification. The South Annex Base will meet the needs embodied by equity and social justice by creating construction and transit jobs in south county and by creating opportunities for the adjacent community to participate in apprenticeship programs. Daylighting of two branches of Riverton Creek will also enhance the natural environment for the adjacent neighborhood and contribute to Tukwila's goals for the Duwamish River.

The South Annex Base concept plan (Figure 4 – Conceptual Development and Riverton Creek Restoration Plan) includes up to 22 bus bays for maintenance, washing and steaming, inspection, and fueling; electric charging infrastructure (such as an overhead gantry system, plug-in chargers, or some combination); 8,400 square feet of maintenance and administration office spaces, 7,500 square feet of parts storage, 16,500 square feet of operator spaces (break, locker, restroom, dispatch, chief, superintendent), and miscellaneous other business functions required for base operations (safety, health and wellness, etc.). The largest habitable structure will be the new maintenance and operations building with the bus bays able to accommodate double-height vehicles (though none are currently planned for acquisition), office space potentially on a second story, outdoor storage, and a basement maintenance area.

Aside from the building construction, the undertaking is expected to require the following site improvements:

- Daylighting of the east branch of Riverton Creek and culvert replacement beneath S 120th Place and installation of retaining walls;
- Daylighting of the northern portion of the west branch of Riverton Creek and culvert

replacement beneath the internal access drive and parking lot on the South Facilities site;

- Installation of an electric bus charging system anticipated to include a gantry system with vertical supports and ground-based electrical infrastructure;
- Diesel fueling system to support an interim hybrid diesel-electric fleet;
- Frontage improvements on E Marginal Way S;
- Roadway improvements and culvert replacement on S 120th Place;
- New signal for the intersection of E Marginal Way S and S 120th Place;
- Underground stormwater facilities, electrical and telecommunications equipment and conduit, and wastewater facilities.

The project will redevelop a relatively flat site of approximately 13 acres with one main building for training and outdoor storage areas. The mostly paved site consists almost entirely of pollution-generating impervious and pervious surfaces, except for roofs and landscaping (Figure 2 – Existing Conditions).

The project also includes daylighting the West Branch and East Branch of Riverton Creek and installing three fish-passable culverts to improve fish passage (Figure 4 – Conceptual Development and Riverton Creek Restoration Plan). Resident cutthroat trout and Coho salmon are known to occur in Riverton Creek. The two branches of Riverton Creek are currently piped underneath the site and discharge into a wetland/stream complex on the northern property boundary. Approximately 940 linear feet of Riverton Creek is expected be daylighted, including 328 linear feet of the West Branch and 612 linear feet of the East Branch. The West Branch is planned to be restored in its current alignment, and the East Branch will be realigned east of its current underground location which will add approximately 63 linear feet of stream habitat. The stream sections will be restored within confined corridors to be compatible with the long-term operations and use of the site (Figure 5 – Cross Section: East Branch Riverton Creek Restoration and Figure 6 – Cross Section: West Branch Riverton Creek Restoration). Approximately 0.5 acre of riparian vegetation will be restored.

Contractor staging is anticipated to occur on site within existing paved or previously disturbed areas, or on lots adjacent to the project site such as South Facilities that abuts the redevelopment area to the west.

Equipment necessary to construct the proposed improvements is expected to include excavators, bulldozers, backhoes, concrete cutters, concrete and dump trucks, flatbed trucks, jack hammers, impact or vibratory pile drivers, loaders, rollers, pavers, and cranes. Pile driving will be necessary to support the building foundations due to liquefaction concerns.

Demolition may begin in the latter half of 2021, with construction expected to last three to four years. Service is expected to begin by 2027.

B. Location and Zoning

Attach a map identifying the project's location and surrounding land uses. Identify any critical resource areas (historic, cultural, or environmental) or sensitive noise or vibration receptors (schools, hospitals, churches, residences, hotels, etc.). Briefly describe the project area's zoning and indicate whether the proposed project is consistent with it. Briefly describe the community (geographic, demographic, economic, and population characteristics) in the project vicinity.

South Annex Base is on a parcel addressed as 11911 E Marginal Way S, Seattle, WA 98168 in the municipal limits of the City of Tukwila, (Figure 1 – Vicinity Map). The parcel is accessible from E Marginal Way S via a private road, S 120th Place. Two Metro facilities are on the parcel, South Facilities building and parking lot on the west side and the Training and Safety Center and South Construction Office with outdoor storage and parking on the east side. The subject undertaking does not involve the South Facilities building or its parking.

Land uses surrounding the South Annex Base site are predominantly light and heavy industrial or manufacturing characterized by low-density single-story concrete structures and access, delivery, and parking areas sized for large vehicles. Smaller commercial enterprises, including food services, are found along E Marginal Way S south of the Annex site (Figure 7 – Current Land Use Map). The Annex site is bounded by SR 599 to the north, Tukwila International Blvd/SR 99/West Marginal Way S to the west, E Marginal Way S to the east, and S 120th Place to the south. Residential uses are located beyond SR 599 and the Duwamish River to the east and SR 99 to the west. These neighborhoods are generally buffered from the commercial and industrial uses by natural features of forested hillsides and the Duwamish River, and nearby roadways and infrastructure.

Specific uses are as follows:

North: SR 599 right-of-way, then Gateway North business center (light industrial park)

East: E Marginal Way S (arterial), then Metro South Base (heavy industrial uses)

South: food manufacturing and data centers immediately adjacent; data center, truck and trailer repair, vehicle leasing and other heavy industrial uses further south

West: Metro South Facilities buildings; private surface parking lot; WSDOT right-of-way

The South Annex Base is in the Duwamish River valley. Riverton Creek flows north to south across the property in two branches, identified herein as the East Branch and West Branch. The East Branch is continuously piped beneath the property, while the West Branch runs through a combination of underground pipes, daylit sections, and road culverts. The two branches meet in a freshwater tidal wetland just north of the site and the creek flow continues under highway 599 to the Duwamish river approximately 0.3 mile downstream.

There is a pocket of residential land between SR 599 and BNSF right-of-way and Interstate 5 (I-5) that constitutes the only nearby sensitive receptors for noise and vibration. These residential properties are separated from the South Annex Base site by SR 599 and Interurban Avenue S, approximately 450 feet to the northeast. Additional residential areas extend south of the MIC, approximately 2,000 feet south of the South Annex Base site. There are no schools, hospitals, or churches within 1,000 feet of the site.

Consistency with Zoning

The subject property is zoned Manufacturing/Industrial Center – Heavy (MIC/H) pursuant to the

City of Tukwila's Official Zoning Map. Parcels adjoining and in the immediate vicinity of the subject property are zoned MIC/H and MIC/L (Manufacturing/Industrial Center – Light) (Figure 8 – Comprehensive Plan and Zoning Map and Figure 9 – Comprehensive Plan Land Use Map). The South Annex Base is within the North Tukwila Manufacturing-Industrial Center (MIC), a Puget Sound Regional Council (PSRC)-designated regional center supporting manufacturing and industrial land uses and employment centers.

A mass transit facility is defined in the Tukwila Municipal Code (TMC) as having structures and infrastructure for public or private transportation systems having established routes and schedules. Metro's existing South Base Training and Safety Center is consistent with the existing zoning and is characterized as an Unclassified Use in the zone. Per TMC 18.66.010, unclassified uses are uses of such unusual, large-scale, unique, or special form as to make impractical their being included automatically in any class of use in the Land Use Table.

The redeveloped South Annex Base will also be an Unclassified Use consistent with the zoning and the North Tukwila MIC. South Annex Base's situation in the North Tukwila MIC is consistent with previous development in the area, such as South Base. The MIC has a long history of industrial uses and activities consistent with South Annex Base and the activities necessary to support and maintain a fleet of transit buses. Surrounding properties that could potentially be impacted by a more intensive use on the South Annex Base site are a mix of light industrial and commercial uses. Impacts are anticipated to be minimal due to the design and planned operations of the facility and typical schedules for beginning and ending bus route service.

The proposed South Annex Base will be designed to be consistent with applicable design, dimensional, parking, access, and environmental regulations in effect at the time of permit submittal. City of Tukwila entitlements and construction permits will be required for the work, including an Unclassified Use Permit. The quasi-judicial process to approve an Unclassified Use Permit (UUP) for redevelopment of the base will allow the City Council to attach reasonable conditions as necessary to mitigate any potential adverse impacts associated with the project. Metro intends to work with the City to design the proposed base to be consistent with applicable development and environmental regulations.

Community

There are few public amenities or services near the South Annex Base. The Green River Trail is a multi-use regional trail that runs adjacent to the South Annex Base and extends between north Tukwila and Kent along the Duwamish and Green Rivers. Several parks exist within a half mile radius of the South Annex Base, including the Duwamish Gardens Park, Duwamish Hill Preserve, Duwamish Park, and the Tukwila Community Center.

According to 2013-2017 American Community Survey (ACS) data collected at the census block group level, approximately 2,506 people live within a half mile radius of the project site. The population is made up predominantly of minority groups, with 58 percent of the population identifying as a racial or ethnic minority. Minority populations residing near the site include Asian (15 percent); Black (12 percent); and Pacific Islander (5 percent). Six percent of the population identifies as two or more races. Twenty percent of the population near the site are Hispanic or Latino. The ACS data also shows that approximately 23 percent of the households within the census block groups are reported as being low income.

C. Traffic

Describe potential traffic and parking impacts, including whether the existing roadways have adequate capacity to handle increased bus or other vehicular traffic. Include a map or diagram if the project will modify existing roadway configurations. Describe connectivity to other transportation facilities and modes, and coordination with relevant agencies, if applicable.

A traffic study was conducted for the project and is included as Appendix A: South Annex Base Traffic Study.

Existing Conditions

The analysis of existing conditions reviewed the existing South Base facility (east of the subject site across SR 599), roadway characteristics, the current traffic volumes and operations on the street network in the project vicinity. Traffic volume counts were conducted in May and September 2019 for morning and afternoon peak periods. Bus counts for South Base were provided by King County Metro. The peak hour for the buses leaving the base is 5:00-6:00 AM and the peak for buses returning to South Base is 8:00-9:00 AM with a close second peak at 6:00-7:00 PM. Employee arrivals occur about 20 to 30 minutes before the buses are deployed.

The peak hours for bus and employee movements are outside peak hours for general traffic on the arterials, which are 6:30-7:30 AM and 4:00-5:00 PM. Most of the buses (76%) depart South Base using the exclusive on-ramp to Southbound SR 599. Buses returning to the base travel southbound on E Marginal Way S (from Interurban Avenue S) to enter the site.

Current traffic operation in the morning and evening peak hours for the study area intersections are at Level of Service (LOS) D or better. The City of Tukwila has established LOS E (on a scale of A-F) as the operational standard for non-residential arterial intersections.

Project Modeling Scenarios

The intersections that will be used by buses at South Annex Base will be the same as those for South Base. Site traffic will travel to and from the regional highway network, (I-5, SR 99 and SR 599). Seven intersections on the road network were studied, five on E Marginal Way S (includes the proposed signal for forecasted scenarios), the S Boeing Access Road, and two on Interurban Avenue S.

Future operations with the South Annex Base project were evaluated under two conditions:

1. South Annex base would add 256 bus spaces and replace the South Interim Base (removing 128 bus spaces), for a net increase of 128 bus spaces and resulting in bus capacity of 535 bus parking spaces at the South Campus, and
2. South Annex base would add to the combined No Build condition with the South Base plus Interim base, for a net increase of 256 buses to 653 total bus parking spaces at the Souths Campus.

At the time of the modeling, Metro was considering decommissioning South Interim Base because a new South King County Base would contribute adequate future capacity. As a result of the coronavirus pandemic, Metro is reassessing its base capacity and it is likely that South Interim Base will remain in operation.

Forecasted Traffic Operations

South Annex Base is expected to generate approximately 1,630 daily vehicle trips to and from

the site with 110 trips during the general arterial traffic AM peak hour and 82 trips during the PM peak hour. The peak bus movements will occur outside of the arterial commute peak hours. As a result, Year 2045 Build condition traffic operation is expected to meet the City of Tukwila standard for intersection LOS in both AM and PM peak hours. Estimated future traffic volumes for the morning and evening peak hour conditions for the 2045 No Build and future Build scenarios are forecast to meet or exceed the City's LOS E minimum standard.

Intersection LOS under both scenarios would remain the same as the 2045 No Build condition, except for the intersection of S 120th Place at E Marginal Way S, where a new signal is forecast to change the AM Peak Hour LOS from B to D, which is still within the City of Tukwila standards.

Table 1 of the traffic study (Appendix A, page 11) shows existing LOS for study area intersections. Table 5 (Appendix A, page 23) compares the 2045 No Build and Build LOS for the same intersections for both Build scenarios.

Transit Service

Existing transit service in the area consists of a feeder route on E Marginal Way S to Boeing Company facilities (Metro Route 154). Metro Route 154 is peak-only service operating northbound between 5:00 and 8:00 AM and southbound between 3:00 and 5:00 PM.

Parking

A parking analysis was conducted to evaluate the location and need for employee parking, which will be accommodated on South Base to the east. Employee parking for South Annex Base employees will be provided approximately one-quarter mile away at the parking garage on the South Interim Base site. Employees will walk the one-quarter mile along E Marginal Way, on existing sidewalks.

Pedestrian and Bicycle Facilities

E Marginal Way S is a major arterial with varying pedestrian and bicycle facilities within in the study area. Sidewalks extend south from the subject property along the west side of E Marginal Way S; sidewalks along the east side of E Marginal Way S extend southward only to the southern end of Metro's South Campus. Sidewalks continue to the north, across the bridge over SR 599, before transitioning to a paved shoulder along Interurban Avenue S.

Signalized intersections on E Marginal Way S at Interurban Avenue S and at S 124th Street provide for controlled crossings of E Marginal Way S. There is a marked crosswalk with overhead signage and push-button actuated flashing beacons and flags at the south side of S 120th Place where it intersects with E Marginal Way S. The project's new signal at S 120th Place will enhance safety for crossing pedestrians compared to existing conditions.

Bicycle facilities in the study area include marked bike lanes on both sides of E Marginal Way S extending south from the SR 599 overpass (where sharrows indicate a shared facility for bicyclists) to S 126th Street. There are marked bike lanes on E Marginal Way S north of the intersection with Interurban Avenue S, extending to and through the intersection with South Boeing Access Road; these do not connect to the bike lanes on E Marginal Way S between SR 599 and S 126th Street. On Interurban Avenue S, paved shoulders provide the bicycle and pedestrian connection to 40th Avenue S which provides a short connection to the Green River Trail running parallel to Interurban Avenue S.

The new traffic signal at S 120th Place and E Marginal Way S, the main access point for the buses at the South Annex Base, will provide for reliable bus movements to and from the South

Annex Base and safety for pedestrians crossing the street, including employees who use the parking garage on South Interim Base.

D. Aesthetics

Will the project have an adverse effect on scenic views, or scenic viewpoints?

☒ No

☐ Yes

If Yes, please describe.

No scenic vistas have been identified in the project vicinity.

Will the project substantially degrade the existing visual character or quality of the site and its surroundings?

☒ No

☐ Yes

If Yes, please describe.

South Annex Base would not diminish the existing or future character or quality of the visual environment in its vicinity. In general, the visual and aesthetic quality of the site and its surroundings are considered low due to the industrial nature of the surrounding parcels and infrastructure. South Annex Base will be consistent with the low-profile industrial and commercial character along E Marginal Way S.

The wider vicinity is characterized by industrial park, tech/flex space, warehouse space, and commercial office parks. Buildings are generally large concrete tilt-up structures supported by surface parking lots and accessed via major transportation infrastructure including SR 599, SR 99/Tukwila International Boulevard, E Marginal Way S, and Interurban Avenue S.

The North Tukwila MIC extends northward into Seattle and the Duwamish Manufacturing Industrial Center, encompassing Boeing and other large industrial uses. The North Tukwila MIC also extends southward for approximately 2,000 feet from the project site before transitioning to a residential neighborhood interspersed with commercial and light industrial nodes. Residential neighborhoods to the west are buffered from the project site by E Marginal Way S, SR 599, and Interurban Avenue S. To the west are office parks and light industrial uses that eventually transition to residential neighborhoods in Burien.

The South Annex Base project consists of two primary visual elements: the maintenance and operations building and the bus yard including charging infrastructure. The maintenance and operations building will replace the existing South Base Training and Safety Center. The maximum height would be two stories for the office part of the building. The maintenance and operations building will be designed to LEEDv4 Platinum certification standards, including the use of higher-quality materials as exterior finishes.

The south side of the building will include offices, bus operator spaces, and similar functions and will be the primary pedestrian entry. The maintenance functions on the north portion of the building will happen in approximately 20 maintenance bays which are accessed through a garage door and which are anticipated to accommodate double-decker buses. Ten maintenance bays will face E Marginal Way S and 10 will face the interior of the site. The site's lower elevation compared to SR 599 effectively will screen features closest to SR 599 from the residential area to the northeast. Other site features will screen the building from vehicular and pedestrian view along E Marginal Way S, including daylighting the east branch of Riverton Creek and riparian plantings to enhance the embankment below the roadway. Frontage improvements will be

installed along the west side of E Marginal Way S to meet current City of Tukwila standards. These project features will improve the visual character and quality compared to existing conditions, especially where vehicle drivers and pedestrians are most likely to view the project.

The bus yard will include gantry-mounted charging equipment to support a fleet of approximately 250 buses and will replace existing outdoor storage areas. While the gantries themselves have not yet been designed, it is anticipated that they will be painted or otherwise aesthetically treated to minimize reflectance or glare to blend in with the industrial character of the project vicinity. The gantries are anticipated to be shorter than the maintenance and operations building and will therefore be screened from view along E Marginal Way S. Buses will be parked beneath gantries in the bus yard and will move around the site for maintenance. Drivers along SR 599 and SR 99/Tukwila International Boulevard and occupants of industrial properties to the south may be able to see the gantries and buses parked or moving within the bus yard. Gantry structures, bus parking, and bus movement necessary for maintenance are consistent with other industrial uses in the vicinity, including Metro's South Base and Interim Base.

Ancillary improvements, including fuel/wash building, demountable fuel tank(s), steam bays, and electrical infrastructure necessary to power the charging equipment will also be constructed on the site. Buildings will match the character of the new maintenance and operations building. Other equipment will be screened or aesthetically treated as necessary to comply with City of Tukwila standards. All ancillary improvements are consistent with the industrial character of the project vicinity.

Will the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

☒ No

☐ Yes

If Yes, please describe.

Operations at the new South Annex Base will be more intensive in terms of 24-hour maintenance needs and more bus traffic. More bus activities will occur over a larger are of the site compared to current operations. Therefore, lighting levels for the safety of workers combined with bus headlights are expected to increase nighttime lighting levels overall compared to existing conditions. These new lighting levels would be similar to those operations at the adjacent South Base and would therefore not create any new kinds of light or glare but would add to lighting in this industrial area. None of the new levels are expected to adversely affect daytime or nighttime views in the area.

The site is currently lit, but lighting will be replaced and augmented as needed for safety and security in the bus parking yard and would consist of lights mounted to charging gantries or freestanding pole-mounted lights. All lights will be downshielded, directed inward, diffused, or otherwise oriented to prevent light spillover onto adjacent properties and rights of way as much as possible. Neighboring properties are nonresidential uses that are not sensitive to light or glare. Neighboring roadways are not anticipated to be affected by any new project lighting.

Buses traveling to, from, or within the site may cause light or glare from headlights. Light or glare from moving buses is not anticipated to substantially increase ambient lighting or affect daytime or nighttime views. Neighboring properties are nonresidential uses that are not sensitive to light or glare. Lights from moving vehicles outside of the project site will be on public

roadways and are not anticipated to noticeably increase lighting in these areas.

Metro will work with permitting agencies to shield the East and West branches of Riverton Creek that Metro expects to daylight from lighting impacts. This will have the effect of diminishing further the potential light impacts on the residential area to the north east.

E. Air Quality

Does the project have the potential to have a negative impact on air quality?

☐ No

☒ Yes

If Yes, please describe.

Project impacts to air quality are assessed in Appendix B, South Annex Base Air Quality Report. Potential impacts to air quality would occur during construction and operations as discussed below. South Annex Base is located within the Seattle Duwamish River Industrial zone, which has shown compliance with the National Ambient Air Quality Standards (NAAQS) and is currently classified as in attainment for all of the criteria pollutants.

Is the project located in an EPA-designated non-attainment or maintenance area? (For additional information, see the EPA webpage "Nonattainment Areas for Criteria Pollutants" here: https://www.epa.gov/green-book.)

☒ No

☐ Yes

If Yes, please indicate the criteria pollutant and contact your assigned FTA Region 10 Grant Representative to determine if a "hot spot analysis" is necessary.

- ☐ Carbon Monoxide (CO)
- ☐ Ozone (O_3)
- ☐ Particulate Matter (PM_{10} or $PM_{2.5}$)

The South Annex Base is located within the Seattle Duwamish River industrial area, which was designated as a nonattainment area for CO and ozone in 1987. Based on long term monitoring results, which have shown no exceedances for several years, the United States Environmental Protection Agency (EPA) re-designated this area as a maintenance area for CO and ozone in the 1990s. Former non-attainment areas are required to continue to maintain air quality by adhering to a maintenance plan developed as part of EPA's re-designation process. Following the maintenance plan, the Seattle Duwamish River industrial area maintained attainment for CO and ozone through the maintenance period. In October 2016, the maintenance plan was successfully completed, and this area is no longer designated a maintenance area for CO or ozone, and has been reclassified as an attainment area.

If the non-attainment area is also in a metropolitan area, was the project included in the MPO's Transportation Improvement Program (TIP) air quality conformity analysis?

☐ No

☐ Yes

If Yes, please provide the date of U.S. Department of Transportation conformity finding.

Project Effects

During project construction, there is a potential for short-term increases in fugitive dust and pollutants generally consistent with construction of infrastructure projects. During periods of demolition and site preparation, dust from excavation, grading, and hauling could cause temporary, localized increases in the ambient concentrations of fugitive dust and suspended particulate matter. Construction activities will require the use of diesel-powered construction equipment, heavy trucks and machinery, and emission control devices will be properly

maintained to minimize air emissions according to Puget Sound Clean Air Agency standards. Other Best Management Practices (BMPs) for construction include spraying exposed soil with water, covering all transported loads of soil and wet material, and installing wheel washes to decrease the amount of particulate matter on roadways. These short-term increases will dissipate after construction is completed.

Air quality impacts from operation of the South Annex Base facility would be limited to gas and diesel-engine driven vehicles, including some hybrid buses (prior to converting to the all-battery electric fleet), delivery, and service vehicles, and employees at South Annex Base who will park on the adjacent South Base. However, measured pollutant levels over the last 20 years have shown a notable reduction in the level of pollutants in the greater Puget Sound area, including the Duwamish River Industrial area where the project is located. This reduction continues even though the total miles travelled by vehicles have increased. The reduction is due primarily to the improved emission control systems, more efficient engines and cleaner burning diesel-powered vehicles, along with more stringent regulations from air quality regulatory agencies.

Cumulative air quality would include emissions from all sources associated with the operation in the South Base area. These include: the existing traffic on SR 599 and other roadways, local industrial and commercial operations, South Base, Interim Base, the South Annex Base, and supporting facilities at nearby leased sites.

Findings and Conclusions

Even with the additional vehicle trips for the South Annex Base operations, the project is well below the threshold for a quantitative analysis of air quality. Because the number of trips associated with the South Annex Base operations is well below the threshold for a quantitative analysis, the project meets the transportation air quality conformity requirements and no operational air quality impacts are predicted and no operational air quality mitigation measures recommended. Air quality BMPs will be installed and maintained during construction to minimize potential project impacts to air quality.

Operation of the South Annex Base is not predicted to result in any new air quality impacts. The proposed project will include hybrid-electric and battery electric buses with the South Annex Base converting to an all-battery electric fleet of buses in the future. Once an all-battery electric fleet is in place, emissions related to the operation of the South Annex Base would be produced by trips for workers, visitors, and delivery of supplies and materials, along with bus maintenance and repair facilities. During initial operations, there will also be some emissions from the fleet of hybrid-electric buses, however, that will end once the fleet is converted to an all-electric fleet. Because no operational air impacts have been identified, no operational mitigation for air quality priority pollutants or greenhouse gas emissions is required.

F. Coastal Zone

Is the proposed project located in a designated coastal zone management area? (For additional information on Coastal Zones, see the Water Resources Standard Operating Procedures on FTA's website here: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/water-resources-0. Also, see the National Oceanic and Atmospheric Administration [NOAA] webpage "The National Coastal Zone Management Program" here: https://coast.noaa.gov/czm/.)

☐ No

☒ Yes

If Yes, please describe coordination with your appropriate State agency regarding consistency with the coastal zone management plan and attach the State finding, if available.

The project is located approximately 3.3 miles from the Puget Sound shoreline in King County. King County is one of fifteen coastal counties enrolled in Washington's Coastal Zone Management (CZM) Program. A Determination of Consistency with Washington's CZM Program form will be submitted to the Washington State Department of Ecology (Ecology) for project concurrence with the CZM Program. Ecology's written concurrency decision will be available on request to FTA upon receipt by Metro.

G. Environmental Justice

Determine the presence of minority and low-income populations (business owners, land owners, and residents) within a quarter-mile of the project area. Indicate whether the project will have disproportionately high and adverse effects on minority or low-income populations. Describe any potential adverse effects. Describe outreach efforts targeted specifically at minority or low-income populations. Please see Environmental Justice Policy Guidance for Federal Transit Administration Recipients here: https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/environmental-justice-policy-guidance-federal-transit.

The Environmental Justice Report prepared for the South Annex Base project is included as Appendix C and its findings summarized below.

Existing Conditions

Tables G-1 and G-2 summarize population by race and ethnic groups for the census block groups and elementary school enrolment boundaries that coincide with a half mile buffer of the project boundaries. The proportion of minority populations near the subject property has remained relatively stable. The census data show the total minority population experienced a small decrease from approximately 61 percent of the population in 2010 to 58 percent of the population according to the 2013-2017 ACS Census Bureau data. Minority ethnic and racial groups make up the majority of the population within the study area. The largest ethnic or racial groups in the region according to the ACS summary estimates are Hispanic populations (20%), Asian populations (15%), and Black populations (12%). ACS population estimates for King County in 2019 for white alone, Hispanic, Asian and Black populations were 67%, 10%, 20%, and 7%, respectively. In short, this area of King County has a higher proportion of minority populations than the county as a whole.

Table G-1: Demographic Summary for Study Area – Census Data

	2010 Census Count[1]		2013-2017 ACS Estimates[2]	
	# of Persons	Percentage	# of Persons	Percentage
Total Population	**2,657**		**2,506**	
Minority Population by Race and Ethnicity[3]	1,617	61%	1,459	58%
Hispanic[4]	602	23%	501	20%
Black	369	14%	310	12%
American Indian	36	1%	8	0%
Asian	465	18%	384	15%
Pacific Islander	48	2%	133	5%
Some Other Race	308	12%	204	8%
Limited English Proficiency[5]	n/a	n/a	185	8%
Low Income	n/a	n/a	539[6]	23%

[1] EJ SCREEN website Census 2010 Summary Report.
[2] EJ SCREEN website ACS Estimates 2013-2017 Summary Report.
[3] The total population also includes a small percentage of people who reported their race as "Two or More Races."
[4] The US Census Bureau reports the Hispanic population as an ethnic category that may include persons of other races. Consequently, the population numbers may be counted as Hispanic ethnicity and also within reported racial information.
[5] Reported in census data as speaks English "less than well."

[6] The US Census Bureau reports low-income populations as households with these characteristics. Households were converted to an estimate of population by multiplying the household count (211 low-income households) by the average household size in the study area (2.55 people per household).

This finding is generally supported by the Office of Superintendent of Public Instruction (OSPI) data. The schools within the Tukwila School District have larger minority populations than the study area (over 75%). This higher presence of minority populations is reflected proportionally in the racial and ethnic groups identified in the census and ACS data, with Hispanic populations comprising 25% to 33% of the school district population, Asian populations comprising 24% to 36%, and Black populations comprising 16% to 21%. The schools in the Highline School District also have proportionally larger minority populations than the census and ACS data but have a different ethnic and racial makeup. Hilltop Elementary has a comparatively larger Hispanic population and smaller Black and Asian populations than the other school districts. Beverly Park Elementary has similar Hispanic and Black population to Tukwila Elementary and Cascade View Elementary Schools, but a much smaller Asian population. These differences are likely attributed to the difference in the school attendance boundaries and the study area boundaries, as well as the fact that some students from outside of the attendance area boundaries attend these schools.

Table G-2: Demographic Summary for Study Area – School Enrollment Data

	Tukwila School District				Highline School District			
	Tukwila Elementary		Cascade View Elementary		Hilltop Elementary		Beverly Park Elementary	
Total Enrollment[1]	**528**		**442**		**500**		**359**	
Minority Population by Race[2,3]	398	74.6%	390	88.3%	437	85.6%	290	80.7%
Hispanic	135	25%	148	33.5%	298	57.8%	159	44.3%
Black	115	21.8%	74	16.7%	39	7.8%	73	20.3%
American Indian	4	0.8%	2	0.5%	0	0%	4	1.1%
Asian	128	24%	160	36.2%	80	16%	36	10%
Pacific Islander	16	3%	6	1.4%	20	4%	18	5%
English Language Learners	156	29.5%	250	56.6%	240	48%	142	39.6%
Low Income	357	67.6%	387	87.6%	405	81%	148	79.1%

[1] Enrolment data for each elementary school is taken from the 2019-2020 OSPI Washington State Report Card Summaries.
[2] Minority Population by Race was not reported for the Washington State School Report Card. This is due to OSPI not reporting a percent total minority. This number is an estimate based on a sum of provided racial and ethnic characteristics.
[3] Data on students who are minority, low income, or English Language Learners is provided as the total number of students enrolled as well as by percentage of the student body.

Low income status is determined by the Federal poverty threshold, which is set annually by the United States Department of Health and Human Services. The 2017 and 2020 poverty guidelines for the 48 contiguous states and the District of Columbia are shown in Table G-3.

Table G-3: Federal Poverty Level Thresholds for Households

Persons in Family/Household	Poverty Guidelines – 2017	Poverty Guidelines – 2020
1	$12,060	$12,760
2	$16,240	$17,240
3	$20,420	$21,720
4	$24,600	$26,200
5	$28,780	$30,680
6	$32,960	$35,160
7	$37,140	$39,640
8	$41,320	$44,120
More than 8	Add $4,180 for each additional person	Add $4,480 for each additional person.

The 2017 guidelines coincide with the 2013-2017 ACS data. The 2020 guidelines are included for inflation context. The 2013 –2017 ACS data show that approximately 23 percent of households in the census block groups within the study area are estimated as low-income.

The OSPI data reports percentages of students who identified as low-income at any point within the school year, meaning they were eligible for the free or reduced-price meals program. There is a significantly higher percentage of students qualifying for this program (67% to 87% of students) than the 23 percent of households counted as low income in the ACS estimates. The difference is due to the higher income threshold for eligibility in the school program: $47, 638 for a family of four compared to $24,600 for the 2017 federal poverty threshold for a family of four, resulting in a greater number of qualifying families. In addition, the attendance boundaries for the OSPI data extends far beyond the study area.

Tukwila Elementary has the lowest percentage of students from low-income families out of all the studied schools and still has over 67 percent of students qualifying for the free or reduced lunch program. Cascade Elementary had the largest percentage with 87 percent qualifying for the program.

The 2013-2017 ACS Summary Report indicates eight percent of the study area populations speak English "less than well." Languages spoken in the area include Spanish, Chinese, Vietnamese, Tagalog, other Asian languages, and other languages not specified. The OSPI school data for the nearby elementary schools show a wide range of English Language Learners students (those students learning English as a second language in school), with the lowest percentage at Beverly Park Elementary (approximately 39% of the student body) and the highest at Tukwila Elementary (approximately 70% of the student body).

Project Effects

The South Annex Base project is anticipated to result in a net benefit to the community, the City of Tukwila, and the region by supporting Metro's existing and planned transit service, by providing temporary jobs and other multiplier economic benefits during construction, new family-wage jobs, and environmental enhancements.

Construction is anticipated to last approximately 39 months. Local businesses and residential neighborhoods to the south and northeast may experience disruption caused by construction traffic, noise and vibration, and fugitive dust from construction staging and materials delivery and stockpiling. Impact-type equipment may cause noise and vibration detectable to occupants of neighboring buildings and people traveling near or within the construction area. Paving may

create odors detectable to people near the project site during paving operations. Businesses may experience temporary utility disruptions during construction. However, minority and low-income populations in the study area are generally far enough from the site that it is expected that the main construction impacts will affect only the closest structures, which are industrial and commercial and greater than 50 feet from the primary construction site. The building at 3311 S 120th Place is adjacent to the proposed location of a fish-passable box culvert and occupants of that building may experience increased noise during construction of culvert. Minority-owned businesses in the project vicinity are not expected to experience any of these construction-related impacts due to distance from the project site.

To evaluate ways that the project could specifically address social injustice and other inequities, and provide benefits more locally, Metro conducted specific outreach efforts outlined below.

Equity and Social Justice Community Roundtable

On August 29, 2019, Metro hosted a community roundtable meeting and site visit to initiate conversations about equity and social justice measures that could be implemented as part of the project design and construction per King County's internal policies. These equity and social justice measures provide discrete benefits tailored to community preferences. Key topics of interest included:

- Economic development through investments in the workforce, helping local residents qualify for family-wage jobs offered by Metro.
- Local transit connections to facilitate easy transportation options between nearby neighborhoods and regional destinations, including microtransit options.
- Environmental enhancement to improve the Riverton Creek system, including daylighting piped sections of Riverton Creek, wetland enhancement, and riparian restoration.

During the community roundtable meeting, community members were also asked to identify areas of concern. Employee traffic trips and the effect on local transportation systems was the topic participants identified for further investigation.

Following the community roundtable, Metro hosted an internal equity and social justice workshop to review community feedback and develop solutions to be integrated into project design.

Findings and Conclusions with Respect to Executive Order 12898 and United States Department of Transportation (USDOT) Order 5610.2

The project will not result in any disproportionately high and adverse effects on minority and low-income populations. Analysis of the affected area and demographic data from the United States Census and ACS for populations within the study area indicates the presence of environmental justice populations. Both low-income and minority populations are present in residential areas and represent a significant proportion of the population living in the study area. Project impacts during construction are anticipated to be highly localized to the immediate project vicinity and generally restricted to industrial areas of the MIC and are not anticipated to reach residential areas. Project impacts during operation are anticipated to be highly localized, except that traffic, air, and noise impacts from new vehicle trips may extend into the Foster/Riverton residential neighborhoods to the south of the project site. Impacts are expected to be *de minimis*, blending into existing background traffic, air quality, and ambient noise due to the time of day that project traffic will typically occur.

Based on findings identified in the discipline reports, the South Base Annex project will have minimal overall impact on the surrounding area. The project is located within the North Tukwila MIC, an industrial area intended to support higher intensity uses such as the South Annex Base project. Census, ACS, and King County Assessor data indicate that residential areas are well-buffered from the project site by existing buildings, infrastructure, and natural features that insulate neighborhoods from potential project impacts. Project design features, BMPs, and mitigation commitments avoid or reduce the potential severity of individual or cumulative impacts on all populations, including minority and low-income populations, such that the project will not result in any adverse impacts on environmental justice populations. Any project impacts would not be more severe for minority and low-income populations compared to any other populations.

H. Floodplains

Is the proposed project located within the Federal Emergency Management Agency (FEMA) 100-year floodplain? (For additional information on Floodplains, see the Water Resources Standard Operating Procedures on FTA's website here: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/water-resources-0. Also, see the FEMA Flood Mapping Products webpage here: https://www.fema.gov/flood-mapping-products.)

☒ No

☐ Yes

If Yes, please describe potential impacts, indicate if the project will impact the base flood elevation, and include or link to the FEMA Flood Insurance Rate Map (FIRM) with the project location identified.

No FEMA-mapped floodplains occur within the immediate project vicinity. The project is located approximately 1,200 feet south of the FEMA-mapped Zone-A floodplain of Duwamish River. No construction activities will occur within a FEMA-mapped floodplain. No adverse impacts to Duwamish River or the 100-year floodplain will occur. The project will have no adverse impacts to water quality and quantity, flood volumes and velocities, flood storage capacity, spawning substrate, floodplain refugia, or riparian vegetation of Duwamish River.

I. Hazardous Materials

Is there any known or potential contamination at the project site? This may include, but is not limited to, lead/asbestos in existing facilities or building materials; above or below ground fuel storage tanks; or a history of industrial uses of the site.

☐ No

If No, please describe steps taken to determine the absence of hazardous materials on the site.

☒ Yes

If Yes, please describe steps taken to determine the presence of hazardous materials on the site. Please also describe any mitigation and clean-up measures that will be taken to remove hazardous materials from the project site. If the project includes property acquisition, identify if a Phase I Environmental Site Assessment for the land to be acquired has been completed and the results. (For additional information on Hazardous Materials, see the Consideration of Contaminated Properties including Brownfields Standard Operating Procedures on FTA's website here: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/consideration-contaminated-properties-including. Also, for additional information on Phase I Environmental Site Assessments, see the ASTM International webpage "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" here: https://www.astm.org/Standards/E1527.htm.)

The proposed South Annex Base project area was reviewed for the potential presence of hazardous materials. A Phase I Environmental Site Assessment (ESA) was conducted by PBS Engineering and Environmental Inc. (PBS) for the property located at 11911 in Tukwila, Washington, and is included as Appendix D. A Phase II ESA was conducted by PBS in May 2020 and is included as Appendix E. The Phase II ESA does not recommend any further cleanup action. As a result, hazardous materials are not expected to be encountered during construction of the South Annex Base project. The results of the Phase I ESA and Phase II ESA are summarized below for informational purposes.

Existing Conditions on the South Facilities portion of the South Annex Parcel

The parcel housing the future South Annex Base also houses King County Metro's South Facilities, located to the west of the proposed new bus base. A leaking underground storage tank located on the South Facilities portion of the parcel along with associated contaminated soil, was removed in the mid-1990s. Because of the history of contamination, the entire parcel is listed by the Washington State Department of Ecology (Ecology) in the Confirmed and Suspected Contaminated Sites List (CSCSL) as a rank 1 environmental hazard (highest risk) due to the reported incomplete remediation of soil and recorded residual soil, groundwater, and air contamination (mainly benzene). This information was identified during the Phase I ESA as a recognized environmental concern (REC). Subsequently, Metro conducted a series of soil and groundwater sampling at South Facilities during 2019 and 2020 that confirmed the absence of contamination associated with fuel storage and activities there. Metro is coordinating with Ecology and seeking a No Further Action (NFA) decision from Ecology. An NFA would result in the parcel being removed from the CSCSL. The absence of contamination means that no

impacts from construction at the South Annex Base portion of the site is expected.

Existing Conditions on South Annex Base Project Site

The subject property was first developed as agricultural land in 1918. In 1966, the site was vacated during the construction of SR 599 along the north boundary of the site. The site was developed in 1985 and has operated as the South Training and Safety Facility for King County Metro since 1987. The facility is used for the training of King County Metro employees and for storage of buses and other materials.

The Phase I ESA identified parked unused buses, 55-gallon unmarked barrels, lead-acid vehicles batteries, a large container marked "Burner Fuel Only," and an unlabeled, empty gas can. The storage of old, potentially leaking vehicles on the subject property that may result in a release of petroleum product to surface soils was considered a REC in the Phase I ESA.

Given the lack of staining or visible degradation from these other findings, they pose a low environmental concern. There are possible impacts from potential spills of regulated agricultural chemicals from the site's previous agricultural use, but no information was available indicating hazardous soil conditions exist on the subject property; therefore, this is considered a *de minimis* environmental condition.

The subsequent Phase II ESA investigation documented that all contaminant concentrations in the investigative soil borings were below the laboratory method detection limit and/or the adopted cleanup criteria. Consequently, further investigation or cleanup at the site is not warranted.

Project Effects

Project construction is not expected to generate hazardous waste or encounter hazardous materials during construction because no sources of hazardous materials and contaminated areas were identified during the Phase II ESA and remediation prior to construction of the South Annex Base is needed.

Spilling of fluids or hazardous materials are risks associated with construction equipment. Potential spill risks will be minimized or avoided by implementing appropriate Tukwila and King County BMPs, a Spill Prevention, Control and Countermeasure (SPCC) Plan, a Stormwater Pollution Protection Plan (SWPPP), and by properly maintaining construction equipment. The contractor is required to develop a spill control plan to address how materials will be properly managed on site to prevent releases as well as containment procedures in case of an accidental release. During construction, fluids such as fuel, oil, and lubricants will be stored away from the surface waters in designated fueling and maintenance areas and in spill preventative containers.

Operation of the South Annex Base is not expected to generate hazardous materials that could migrate off-site. The use and storage of hazardous materials will be in accordance with King County BMPs and follow all applicable regulations. Stormwater generated from the site will be managed per the King County Stormwater Pollution Prevention Manual's industrial and commercial BMPs will be implemented as feasible for the project site.

Findings and Conclusions

Construction activities will be managed to ensure regulatory compliance for any unanticipated hazardous materials. Appropriate BMPs, a SPCC Plan, and a SWPPP will be employed during construction and operations to minimize potential exposure of hazardous materials.

J. Navigable Waterways

Does the proposed project cross or have the potential to impact a potentially navigable waterway? (Waterway navigability can be defined by the U.S. Army Corps of Engineers, the U.S. Coast Guard, Congress, or the federal courts. For additional information on Navigable Waterways, see the Water Resources Standard Operating Procedures on FTA's website here: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/water-resources-0.)

☒ No

☐ Yes

If Yes, please describe potential impacts and any coordination with the U.S. Army Corps of Engineers or the U.S. Coast Guard.

No navigable waterways occur within or adjacent to the project area. The Duwamish River is classified as a Traditional Navigable Water (TNW) under Section 10 of the Rivers and Harbors Act of 1899. The project is located approximately 0.3 mile south of Duwamish River. Riverton Creek is classified as a tributary to a TNW by the United States Army Corps of Engineers (USACE).

K. Noise and Vibration

Does the project have the potential to increase noise or vibration?

☐ No

☒ Yes, please describe the impact(s) and provide map(s) identifying sensitive receptors such as schools, hospitals, parks, residences, and hotels. If the project will result in a change in noise and/or vibration sources, you must conduct an analysis following the guidance in FTA's Transit Noise and Vibration Impact Assessment Manual here: https://www.transit.dot.gov/research-innovation/transit-noise-and-vibration-impact-assessment-manual-report-0123.

The proposed South Annex Base project was reviewed for potential noise and vibration impact that could occur during construction or operation of the new base. The Noise and Vibration Discipline Report prepared for the South Annex Base project is included as Appendix F. Detailed noise and vibration analyses were performed using the methods provided in the Transit Noise and Vibration Impact Assessment Manual (FTA 2018). The process included a review of land use, measurement of existing noise levels, a review of existing vibration levels and an analysis of potential noise and vibration impacts due to facility operation. Land use near the site is primarily commercial and industrial, with residential units located over 450 feet to the northeast. The study analyzed the noise impact from general maintenance operations, cleaning of buses, the arrival and departure of buses at the South Annex Base, bus movement in the South Annex Base yard, and ancillary equipment, including power substation and charging systems. The operational analysis assumes that the South Annex Base would operate 24 hours a day.

The project area was reviewed for any FTA Category 1, 2 or 3 properties within the recommended screening distance for a maintenance base of 350 feet, and none were identified. The closest FTA Category 2 land uses are the group of single-family residences on the east side of E Marginal Way S and Interurban Avenue S. Also, in this same area is the Green River Trail, a shared multi-use path frequented by local area residence and bicycle commuters that could be considered an FTA Category 3 land use. There are no FTA Category 1 land uses anywhere near the South Annex Base.

Under the FTA noise impact criteria, maintenance facilities must also consider local noise ordinances, and for this project that included using the City of Tukwila noise control ordinance. Operational noise modeling was performed for eight receiver groups representing approximately 30 residences and the Green River Trail, a multi-use trail. The purpose of the modeling is to show that the proposed South Annex Base complies with FTA criteria for noise and vibration and the City of Tukwila noise control ordinance.

The modeled noise level results show that noise from the operations of the South Annex Base will not exceed the FTA criteria or City of Tukwila criteria at any of the nearby residences or along the Green River Trail. The large distance, and topographical and structural shielding, will reduce noise from the South Annex Base operations to well below the FTA and City of Tukwila criteria. The predicted noise levels from South Annex Base operations are 11 to 15 decibels (dB) below the FTA criteria, and 5 to 18 dB below the Tukwila daytime and nighttime criteria, and therefore, no noise impacts were identified, and no noise mitigation is recommended.

Vibration levels from the operations of the South Annex Base are not predicted to result in any vibration impacts because there are no vibration-sensitive receivers within 100 feet of the site. At distances greater than 100 feet, the vibration from site operations would be well below the FTA criteria due to ground attenuation affects.

There may be some construction related noise and vibration impacts. Construction will last for approximately 39 months. Construction noise impacts can be reduced with operational methods and scheduling, equipment choice, and acoustical treatments. Any potential nighttime construction would control noise levels by applying noise-level limits established through the local variance process and would use noise-control measures where necessary. Measures to minimize short-term annoyance from construction vibration include the use of alternative methods with less vibration, such as the use of static roller compactors rather than vibratory roller compactors. Activities with potential for short-term annoyance could also be restricted to shorter periods and daytime hours when vibrations and noise are less noticeable. As previously stated, however, given the location of the South Annex Base, construction related vibration is not predicted to cause any notable vibration impacts.

L. Prime and Unique Farmlands

Does the project involve the use of any prime or unique farmlands, as defined by the U.S. Department of Agriculture (USDA)? (For additional information, see the document "Prime and Unique Farmlands" at the USDA webpage here: https://efotg.sc.egov.usda.gov/references/public/VA/PrimeandUniqueFarmlands.pdf.)

☒ No

☐ Yes

If Yes, please describe potential impacts and any coordination with the Natural Resources Conservation Service of the USDA.

The project area occurs within a heavily developed urban area. Prime and unique farmlands are not located within the project vicinity. No prime or unique farmland occurs within a 1-mile radius of the project site according to the NRCS Web Soil Survey. Soils on site and in the project vicinity are mapped as urban land and Alderwood-Everett-Urban land complex.

M. Historic and Cultural Resources

Impacts to cultural, historic, or recreational properties may trigger Section 106 consultation, tribal consultations, and/or a Section 4(f) evaluation, requiring consideration of avoidance alternatives. (For additional information on Section 106, see the Section 106 Process Standard Operating Procedures on FTA's website here: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-106-process-standard-operating-procedures. For additional information on Section 4(f), see the Section 4(f) Evaluations Standard Operating Procedures on FTA's website here: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-4f-evaluations.)

Does the project involve any ground disturbing activities?

☐ No

☒ Yes

If Yes, please provide the approximate maximum ground disturbance depth and extent. Also, please provide information on any previous ground disturbance at the project site.

Ground disturbance is likely to extend the full limits of the site in order to modernize stormwater facilites, install electrical utilities, daylight the creeks, and create stable foundations. In some places disturbance will extend very deeply into the ground to stabilize deeper soils prone to liquefaction. The entire site was previously disturbed (graded, cut, and filled between approximately four and 11 feet below the ground surface) when the South Annex facility was built. Please see the geotechnical report attached as Appendix J for information on previous development activity and associated fill depths.

Are there any historic resources at the project site or in the vicinity of the project?

☒ No

☐ Yes

If Yes, please attach photographs of structures more than 45 years old that are within or adjacent to the project site and describe any direct or indirect impacts the project may cause.

The South Annex Base project will not impact cultural or historic properties that would potentially trigger a Section 4(f) evaluation. A cultural resources inventory has been conducted and a report prepared to support a Section 106 consultation: Appendix G, Cultural Resources Inventory for the King County Metro South Annex Base Project.

Area of Potential Effects

The project area of potential effects (APE) for permanent improvements includes the current South Annex Base, three culverts along S 120th Place, the S 120th Place and East Marginal Way intersection, and all of S 120th Place, as shown on Figures 1-1 and 1-2. The majority of the APE (20.5 acres) comprises buildings, paved surfaces, heavily modified or inaccessible terrain, and drainage canals, so the actual area targeted for archaeological pedestrian and subsurface survey was only approximately 0.5 acres. The APE is limited to the area of potential ground disturbance, because no buildings, structures, or objects over 45 years of age are located within the APE or adjacent parcels. As a result, potential direct and indirect (visual and auditory)

effects were not considered.

Dennis E. Lewarch, Tribal Historic Preservation Officer for the Suquamish Tribe concurred with the APE on September 16, 2020 (email correspondence to Mark Assam, FTA). DAHP concurred with the proposed APE on September 21, 2020 (Letter to Linda Gehrke, Project tracking #2020-09-05952). A letter asking for concurrence with the findings of the cultural resource investigation was sent to DAHP on January 8, 2021. DAHP concurred with the findings on January 13, 2021 (Letter to Linda Gehrke).

Results of Cultural Resource Investigation

HRA performed an archaeological inventory of the APE on October 29, 2020, that included pedestrian survey and shovel probing. The urban area in which the APE are located has been extensively modified and disturbed through the construction of KCM's facilities and those of adjacent businesses. The few remaining natural areas within the APE have likewise been modified through the landscaping of planting strips along E Marginal Way S and S 120th Place and the channelization of a drainage creek that flows from south to north through its west side.

HRA identified no significant archaeological resources during this study and no further studies are recommended. No buildings over 45 years of age will be physically or visually impacted by the project; therefore, HRA did not undertake an architectural inventory.

To address the unlikely event of encountering cultural materials during Project construction, an Inadvertent Discovery Plan (IDP) has been developed and will be implemented by Metro during construction of the Project. The IDP is located in Appendix A of this study.

Based on the aforementioned results, HRA is making the following recommendations:

- There are no resources listed on, or eligible for, the NRHP within the Project APE.
- The Project will result in no historic properties affected on resources listed on, or eligible for, the NRHP.

N. Biological Resources

Are there any species located within the project vicinity that are listed as threatened or endangered under the Endangered Species Act? Determine this by obtaining lists of threatened and endangered species and critical habitat from the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. (For additional information on Biological Resources, see the Biological Resources Standard Operating Procedures on FTA's website here: https://www.transit.dot.gov/regulations-and-programs/environmental-programs/biological-resources-standard-operating-procedures.)

☐ No

☒ Yes

If Yes, please identify the species, and also describe any critical habitat, essential fish habitat, or other ecologically sensitive areas within or near the project area.

This section is summarized from the Biological Assessment (Appendix H) and the Critical Areas Report and Conceptual Restoration Plan (Appendix I). The Biological Assessment finds no effect to species listed under the Endangered Species Act (ESA) or Designated Critical Habitat (DCH), and no adverse effects to Essential Fish Habitat (EFH).

Protected Species

The project is in a highly developed landscape surrounded by roadways and light industrial and residential land uses that does not provide suitable habitat for listed species. Table N-1 below presents the ESA-listed species, obtained from United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS), that may occur in the project area. Other state information sources referenced include Washington Department of Fish and Wildlife's (WDFW) Priority Habitats and Species (PHS) list and the Washington Department of Natural Resources' (WDNR) Natural Heritage Program for sensitive plant species. However, none of the potentially occurring ESA-listed species or suitable habitat for these species is present on site. No designated critical habitat for ESA-listed species is mapped or occurs in the project area.

Riverton Creek is within the Puget Sound Recovery Domain for West Coast Salmon and Steelhead under the ESA. Riverton Creek is not listed as designated critical habitat, but it flows into the Duwamish River approximately 0.3 mile downstream of the South Annex Base site. The Duwamish River is designated critical habitat for Puget Sound Chinook (*Oncorhynchus tshawytscha*) Evolutionary Significant Unit (ESU), Coastal/Puget Sound steelhead *(Oncorhynchus mykiss*) Distinct Population Segment (DPS), and bull trout (*Salvelinus confluentus*).

The WDFW's PHS on the Web online mapping tool lists priority species occurring within both branches of Riverton Creek. Resident coastal cutthroat trout is mapped within the West Branch, and Coho salmon (*Oncorhynchus kisutch*) is mapped in both the West and East Branches. WDFW's SalmonScape indicates the potential presence of fall Chinook salmon, Coho salmon, fall Chum salmon (*Oncorhynchus keta*), and steelhead trout in the East Branch due to the lack of a gradient barrier. SalmonScape lists the documented presence of resident cutthroat trout and Coho salmon, and indicates the potential presence of winter steelhead and fall Chinook salmon within the West Branch.

Table N-1: ESA-Listed Species Potentially Occurring in the Project Area

Common Name	Scientific Name	Federal Status	Washington State Status	Potential to Occur in Project Area
Fish Species				
Bull trout	*Salvelinus confluentus*	Threatened	Candidate	Does not occur; no suitable habitat present.
Chinook Salmon, Puget Sound ESU	*Oncorhynchus tshawytscha*	Threatened	Candidate	Does not occur; no suitable habitat present.
Steelhead, Puget Sound DPS	*Oncorhynchus mykiss*	Threatened	None	Does not occur; no suitable habitat present.
Bird Species				
Streaked horned Lark	*Eremophila alpestris strigata*	Threatened	Endangered	Does not occur; no suitable habitat present.
Yellow-billed cuckoo	*Coccyzus americanus*	Threatened	Endangered	Does not occur; no suitable habitat present.
Marbled murrelet	*Brachyramphis marmoratus*	Threatened	Endangered	Does not occur; no suitable habitat present.
Mammal Species				
Gray wolf	Canis lupus	Endangered	Endangered	Does not occur; no suitable habitat present.
North American wolverine	Gulo gulo luscus	Proposed Threatened	Candidate	Does not occur; no suitable habitat present.

Per the Washington Natural Heritage Program, no sensitive plant species or natural heritage features are known to occur within the same surveyed land section as the study area. The Washington Wetlands of High Conservation Value Mapper does not show any sensitive plant populations within 0.5-mile of the project site.

Existing Conditions

Terrestrial and freshwater habitat conditions within the project vicinity are limited and have been impacted by industrial and commercial development. Much of the area is composed of impervious surfaces such as parking areas, commercial business complexes and light industrial uses. In the vicinity of the South Annex Base site, terrestrial habitat exists in fragmented forested areas along linear corridors (e.g., watercourses, roads), on hillsides, and in public open space.

Two branches of Riverton Creek are piped underneath the South Annex Base site and discharge into a freshwater tidal wetland/stream complex (Wetland A) along the northern property boundary (Figure 2 – Existing Conditions Map). Both branches are tidally influenced due to backwatering effects from the Duwamish River approximately 0.3 mile downstream to the north. The West Branch enters the southwest corner of the South Annex Base site in an underground pipe, flows through a concrete-lined channel for approximately 100 feet, re-enters an underground pipe, and then joins with the East Branch near the northwest South Annex Base site boundary just south of SR 599. Narrow riparian wetlands border the West Branch in daylit sections near the S 120th Place crossing.

The East Branch flows in underground pipes along the eastern edge of the South Annex Base site and discharges into Wetland A within the WSDOT right-of-way for SR 599. The East Branch is piped for approximately 2,000 linear feet upstream and south of the South Annex Base site. The combined flows of both branches of Riverton Creek are then conveyed under SR 599 to an open channel and freshwater tidal marsh before discharging to the Duwamish River. A

narrow, vegetated buffer separates Wetland A from the SR 599 edge of pavement. Per the City of Tukwila's critical areas online mapping tool (Tukwila iMap), both branches of Riverton Creek are Type 2 (fish-bearing) watercourses and have a 100-foot standard buffer width per Tukwila Municipal Code 18.45.100 (Watercourse Designations, Ratings and Buffers).

Wetland A is a freshwater tidal wetland with palustrine emergent and scrub-shrub habitat classes. The wetland is dominated by reed canarygrass (Phalaris arundinacea) and dense thickets of Himalayan blackberry (Rubus armeniacus), spirea (Spiraea douglasii), and bittersweet nightshade (Solanum dulcamara). Buffers are generally degraded due to the surrounding development and infrastructure. A thin strip of woody vegetation approximately 30 to 60 feet wide separates the wetland/stream complex from the edge of pavement on the South Annex Base site. Vegetation consists of Douglas fir (Pseudotsuga menziesii), shore pine (Pinus contorta), and Western red cedar (Thuja plicata) trees with an understory of dense Himalayan blackberry. A strip of roadside grasses and weeds approximately 10 to 20 feet wide separates Wetland A and SR 599.

Riparian buffer conditions in the vicinity of the South Annex Base site are degraded due to existing development and infrastructure. The West Branch flows on site in a concrete channel within a paved parking and storage area and has no vegetated buffer on the site except near the confluence with the East Branch. The piped segment of the East Branch does not have a functional buffer.

Therefore, under existing conditions, the East Branch and West Branch of Riverton Creek lack many habitat elements necessary to support fish life stages such as suitable substrate for spawning, habitat structure (e.g., pools, riffles, shelter), and detritus and food inputs. Habitat for salmonid species is considered to be not properly functioning based on poor water quality, inadequate stream flows, and temperatures. Both stream branches lack complex in-stream habitat features, suitable stream substrate for spawning and lack refugia from flow and disturbance events.

Project Effects

The project redevelopment footprint consists of approximately 13 acres almost entirely of pollution generating impervious and pervious surfaces except for landscaping along streets and near parking areas. Site stormwater and runoff treatment facilities will be updated to meet the 2016 KCSWDM as adopted by the City of Tukwila. Following construction, the project site will have a net reduction of approximately 3,000 square feet of pollution generating impervious and pervious surfaces. Existing pollution generating impervious and pervious surfaces is approximately 510,750 square feet, and there will be approximately 507,754 of pollution generating impervious surfaces post-construction.

The project includes daylighting the West Branch and East Branch of Riverton Creek and installing three fish passable culverts to improve fish passage. Approximately 940 linear feet of Riverton Creek will be daylighted, including 328 linear feet of the West Branch and 612 linear feet of the East Branch. The West Branch is planned to be restored in its current alignment, and the East Branch will be realigned east of its current underground location which will result in approximately 63 linear feet of additional channel length and stream habitat. The stream sections will be restored within confined corridors to be compatible with the long-term operations and use of the site. Approximately 0.5 acre of riparian vegetation will be restored. The project will also install three fish-passable culverts in accordance with WDFW's Water Crossing Design Guidelines (2013).

Daylighting the piped sections of Riverton Creek in new open corridors and constructing the three fish-passable culverts will improve instream habitat, water quality, and fish passage in Riverton Creek, thereby benefiting aquatic resources by improving fish habitat. Reducing the amount of paved impervious surfaces and restoring riparian vegetation will further benefit aquatic resources in Riverton Creek.

Direct impacts to Wetland A and both branches of Riverton Creek are unavoidable due to the nature of the Riverton Creek restoration coinciding with redevelopment of the South Annex Base site. Impacts to these resources will be minimized by limiting redevelopment to within the existing development footprint of the current facilities. Replacement culverts will be designed to accommodate fish passage per WDFW's Water Crossing Guidelines (2013). Restoration of Riverton Creek and riparian vegetation will result in a net decrease in pollution generating surfaces after construction relative to the current conditions.

Approximately 1,286 linear feet of Riverton Creek will be permanently impacted by the proposed restoration to improve fish habitat and passage in Riverton Creek on site. Approximately 800 square feet of temporary impacts to Wetland A are anticipated from tying in the two restored stream channels on site to the existing Riverton Creek channel north of the property boundary along SR 599. An additional 1,200 square feet of wetlands will be temporarily impacted from installing fish-passable culverts at the S 120th Place crossings (Figure 4 – Conceptual Site Development and Riverton Creek Restoration Plan). All temporary wetland impacts will be restored following construction.

The project has the potential to have short-term effects to ESA-listed fish species during construction from activities such as grading, pile driving, building construction, installing temporary stream diversions, and restoring Riverton Creek. Pile driving is necessary to construct the building foundation, but no in-water pile driving will occur. However, the project will utilize construction BMPs to avoid any impacts to ESA-listed fish species in the Duwamish River 0.3 mile downstream, including temporary sediment and erosion control measures, working within the agency-approved in-water work window, and installing stream bypass systems with fish screens and downstream sediment mats. The project will have no long-term effects on ESA-listed fish species from stormwater discharge because redevelopment will result in a net decrease of approximately 3,000 square feet of pollution generating impervious and pervious surfaces, and no ESA-listed species are present on site in Riverton Creek

Potential long-term indirect impacts include improved water quality provided by updated stormwater facilities on site and conversion of paved surfaces to vegetated riparian buffer to increase infiltration relative to existing conditions.

Findings and Conclusions

The proposed project will have **no effect to ESA-listed fish species** (bull trout, steelhead, and Chinook salmon) because they are not present in the project area for Riverton Creek and there is no mapped critical habitat or suitable habitat for these species. The project will have **no effect on ESA-listed terrestrial species** because there is no suitable habitat in the site vicinity and these species do not occur in the area.

EFH for ground fishes and coastal pelagic species are not present in the project area, and therefore the project will not adversely affect EFH for these species. No significant impacts to EFH for Pacific salmon are anticipated to occur as a result of construction. No permanent adverse effects on EFH for Pacific salmon will occur as a result of this project, and the project will have long-term benefits to coho salmon for various life stages. Therefore, the project **will**

not adversely affect EFH for Pacific salmon.

O. Recreational Resources

Is the project located in or adjacent to a park or recreation area? (For additional information on Recreational Resources, see the Section 4(f) Evaluations Standard Operating Procedures on FTA's website here: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/section-4f-evaluations.)

☒ No

☐ Yes

If Yes, please provide information on potential impacts to the park or recreation area. Please also indicate if the park involved Land and Water Conservation Fund Act funding (Section 6(f)) (For additional information on the Land and Water Conservation Fund Act, see the National Park Service's Land and Water Conservation Fund webpage here: https://www.nps.gov/subjects/lwcf/index.htm.)

Six recreational resources are within a half-mile of the project site, most within Tukwila

Table O-1: Recreational Resources

Facility Name	Location	Distance to Site	Description
Green River Trail	Along Duwamish R	0.22 mile	Regional trail
Duwamish Gardens Park	11269 E Marginal Way S	0.25 mile	Neighborhood park
Duwamish Hill Preserve	3800 S 115th St.	0.28 mile	Neighborhood park
Duwamish Park	11750 42nd Ave	0.34 mile	Neighborhood park
Tukwila Community Center	12424 42nd Ave S	0.40 mile	Community park
Hilltop Park	2600 S 128th St., Burien	0.50 mile	Neighborhood park

None of these resources were developed with grants from the Land and Water Conservation Fund (Washington State Recreation and Conservation Office reports, 2011-2018); therefore, a Section 6(f) analysis is not required for this project. The project will not affect the recreation facilities listed above or any other recreation facilities. The recreation facilities are too far away to experience construction- or operation-related noise, vibration, air quality, or aesthetic impacts. Therefore, a Section 4(f) evaluation is not required for this project.

P. Seismic and Soils

Are there any unusual seismic or unstable soil conditions in the project vicinity? If so, indicate on a project map and describe the seismic standards to which the project will be designed.

☐ No

☒ Yes

If Yes, please describe the conditions.

The proposed South Annex Base project was reviewed for potential seismic concerns and geotechnical recommendations for development and construction (Appendix J – Geotechnical Engineering Report and Appendix J – Geotechnical Report Appendices [separate PDF]). The site has some weak soils that will require structures and/or treatments to support the weights expected from the buildings and the overhead gantries for electrification.

Multiple investigations of soils across the site show a moderate to high liquefaction susceptibility. Shallow groundwater on the property indicates a moderate to high risk of structural damage from soil settling as a result of an earthquake.

Special considerations will be taken for the upper 2 to 11 feet of soil on site, which is composed primarily of undocumented fill consisting mainly of well-graded sand and gravel. Under these soils are very loose to dense poorly graded sand with various amounts of silt and very soft to medium stiff, dark brown, low plastic silt with various amounts of fine sand. The sandy silt and silty sand deposits are interlayered by high plastic silt and sensitive clay with organics lenses between 45 and 62 feet below grade. Glacial till deposits were encountered at depths of 65 feet bgs in the southeast corner and 98 feet bgs in the northeast corner.

There are several suggested mitigation strategies to reduce liquefaction potential and other geotechnical hazards. Strategies to improve soil conditions include installing stone columns and deep soil mixing to improve soil stability. Foundation alternatives to improve support are to mitigate compressible and potentially liquefiable soils with soil improvement (e.g., soil mixing) in conjunction with mat foundation, or to use deep foundation piles. These piles would penetrate through the potentially liquefiable soils and soft clay-like soils and derive their support from the underlying non-liquefiable soils present to depths of more than 65 feet bgs on the south side and 98 feet bgs on the north side. The proposed new development may also include retaining walls up to 15 feet tall along the toe of the existing roadway embankment at the east side of the site.

By implementing the recommended ground improvement measures to mitigate the effect of liquefaction, and combined with the relative flatness of the site, and distance from any nearby steep slopes of bare rock (free faces), the risk of structurally damaging lateral spreading from a code-based earthquake will be low.

Q. Water Quality

Does the project have the potential to impact water quality, including during construction? (For additional information on Water Quality, see the Water Resources Standard Operating Procedures on FTA's website here: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/water-resources-0.)

☐ No

☒ Yes

If Yes, please describe potential impacts as a result of the project and your agency's Best Management Practices to manage/mitigate these impacts.

Information in this water quality section is summarized from the Biological Assessment prepared for the South Annex Base project (Appendix H) and the South Annex Base Stormwater Drainage Memo (Appendix K). Existing conditions are described in detail in Section N, Biological Resources, above. Water resources include the Duwamish River approximately 0.3 mile north and downstream of the site, two branches of Riverton Creek which are mostly piped underneath the site, and a wetland complex between the site's northern property boundary and the south side of SR 599. Both Riverton Creek and the Duwamish River are impaired waters on Ecology's 303(d) list (Ecology 2020). Riverton Creek is 303(d) listed for bioassessment as a result of low Benthic Index of Biological Integrity (B-IBI) scores.

Project Effects

The project includes grading, excavation, culvert replacements, and stream restoration that will result in temporary disturbance of soils. These activities have the potential to mobilize disturbed sediments that could increase turbidity in downstream surface waters including Wetland A and Riverton Creek. Both Branches of Riverton Creek on site are currently isolated from aboveground activities as they are conveyed in underground pipes or concrete channels (e.g., a portion of the West Branch). Most of the site demolition, grading, and foundation system installation within the redevelopment footprint is expected to occur prior to daylighting Riverton Creek, which will greatly minimize if not eliminate the potential for introducing sediment and increasing turbidity in Riverton Creek downstream. A Construction Stormwater General Permit (CSGP) will be acquired from Ecology prior to construction, and a site specific SWPPP with temporary erosion and sediment controls will be implemented prior to and maintained through the duration of construction. Additionally, minimization measures associated with avoiding or minimizing sediment mobilization from construction, and BMPs targeted to reduce or avoid sediment mobilization, will be in place throughout project construction to prevent sediment from mobilizing and entering any downgradient surface waters.

For in-water work related to replacing three culverts and daylighting the East and West Branch of Riverton Creek on site, a stream bypass system will be installed prior to construction to minimize the potential for sediment release and mobilization downstream. All in-water work will be conducted during the WDFW-approved in-water work window to minimize turbidity and effects to fish. Spill containment measures will be properly implemented, monitored and maintained, and all equipment refueling will occur outside of sensitive areas. A sediment mat will be installed downstream to further minimize impacts to instream aquatic habitats after water is introduced to the restored stream channels, and will be removed after construction is complete.

Findings and Conclusions

The project will result in a net reduction of pollution generating impervious and pervious surface of approximately 3,000 square feet relative to existing conditions. The project site will be redeveloped in accordance with the current stormwater management standards using the KCSWDM, which will likely result in improved water quality and flow rates from stormwater discharging from the project site due to more stringent current design standards. Incidental pollution generation from fuel sources is expected to decline over time as the South Annex Base converts to an all-electric bus fleet. However, the modest decrease in pollution generating impervious and pervious surfaces on site following redevelopment and the stormwater infrastructure improvements are not likely to result in measurable decreases in pollutants in Riverton Creek downstream. Potential long-term indirect impacts may include improved water quality provided by updated stormwater facilities on site and conversion of paved surfaces to vegetated riparian buffer to increase infiltration relative to existing conditions.

Will there be an increase in new impervious surface or restored impervious surface?

☒ No

☐ Yes

If Yes, please describe potential impacts and proposed treatment for stormwater runoff.

The project will result in a net reduction of pollution generating impervious and pervious surface of approximately 3,000 square feet relative to existing conditions. Existing pollution generating impervious and pervious surfaces is approximately 510,750 square feet, and there will be approximately 507,754 of pollution generating impervious surfaces post-construction.

Stormwater management infrastructure has been designed in accordance with the KCSWDM. The KCSWDM requires the construction of the construction of surface and stormwater management systems to mitigate the impacts of new development and redevelopment on natural and existing man-made drainage systems. The project design must comply with the following manuals:

- 2016 King County Surface Water Design Manual.
- 2016 King County Stormwater Pollution Prevention Manual.
- City of Tukwila municipal Code, Chapters 14.28 and 14.30.
- City of Tukwila 2019 Update Stormwater Management Program Plan.

The redevelopment site consists of two main sub-basins that drain through three existing outfalls to Riverton Creek. Three existing underground structures detain and treat stormwater before outflowing into Riverton Creek. The existing conveyance pipes and treatment units will be removed and replaced except that the existing pipe outfalls to Riverton Creek will be maintained or improved. The outfall locations and elevations are expected to remain unchanged. Proposed stormwater infrastructure improvements include three underground flow control facilities, two enhanced water quality treatment units (e.g., modular wetlands), conveyance pipes, and oil/water separators. Stormwater treatment includes basic and enhanced water quality treatment as stormwater will flow through the oil/water separators and treatment devices prior to reaching the vaults for flow control.

Using the Western Washington Hydrology Model, two alternative flow control facility types have been approximated in size in order to match historic flow durations for 50 percent of two-year through 50-year peaks and match historic two- and 10-year peak flows. The impervious areas required to drain to the facility includes the entirety of the redevelopment area, 513,000

square feet (11.78 acres), excluding the Riverton Creek and riparian restoration areas. The first alternative is a vault with a total area of 81,800 square feet (1.88 acres) with an interior height of 4.5 feet and a riser height of three feet. The other flow control facility is a 4-foot diameter tank at a total length of around 24,520 feet. Tanks require two feet minimum spacing. The total combined surface area required is around 147,600 square feet (3.39 acres). The conveyance systems will have sufficient capacity to convey and contain the 25-year peak flow.

In order to minimize disruption to operations at the surface, water quality requirements can be met with underground treatment unit vaults that have received Ecology's General Use Level Designation (GULD) for Enhanced Water Quality Treatment. Two underground modular units or similar method for enhanced water quality treatment will be installed. Other approved proprietary Opportunities for flow control Low Impact Development (LID) BMPs will be identified as required per the KCSWDM. Two oil/water separators will be installed upstream of the underground water quality treatment units.

Is the project located within the vicinity of an EPA-designated Sole Source Aquifer (SSA)? (For additional information on Sole Source Aquifers including an interactive map, see the EPA's Sole Source Aquifers for Drinking Water webpage here: https://www.epa.gov/dwssa.)

☒ No

☐ Yes

If Yes, please provide the name of the aquifer for which the project is located and describe any potential impacts to the aquifer. Also, please provide the approximate amount of new impervious surface created by the project. (Attach a completed FTA Region 10 SSA Worksheet and submit it along with this CE worksheet, if applicable.)

No, the project is not located in the vicinity of an EPA-designated sole source aquifer.

R. Wetlands

Will the project temporarily or permanently impact wetlands or require alterations to streams or waterways? (For additional information on Wetlands, see the Water Resources Standard Operating Procedures on FTA's website here: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/water-resources-0.)

☐ No

☐ Yes

If Yes, please describe potential impacts.

Information in this wetlands section is summarized from the Critical Areas Report prepared for the South Annex Base project, and included as Appendix I.

Existing Conditions

The East Branch and West Branch of Riverton Creek discharge into a freshwater tidal wetland/stream complex, identified as Wetland A, on the north parcel boundary of the South Annex Base site between an upland berm and the southside of SR 599. The wetland extents are mostly within the WSDOT right-of-way south of SR 599.

Wetland A is a freshwater tidal wetland with palustrine emergent and scrub-shrub habitat classes. The wetland is dominated by reed canarygrass and dense thickets of Himalayan blackberry, spirea, and bittersweet nightshade. Two other unnamed riverine wetlands with scrub-shrub habitats are located along the West Branch of Riverton Creek in a confined open channel near the Sabey Corporation driveway and parking lot at the west end of S 120th Place (Figure 2 – Existing Conditions).

Project Effects

Direct impacts to Wetland A are unavoidable due to the nature of the Riverton Creek restoration coinciding with redevelopment of the South Annex Base site. Impacts to wetlands will be minimized by limiting redevelopment to within the existing development footprint. Approximately 800 square feet of temporary impacts to Wetland A are anticipated from tying in the two restored stream channels on site to the existing Riverton Creek channel north of the property boundary along SR 599. However, these temporary impacts will result in enhancing existing habitat functions in Wetland A by removing invasive plant species and replanting with native vegetation. An additional approximately 1,200 square feet of wetlands will be temporarily impacted from installing fish-passable culverts under S 120th Place and the South Facilities driveway. All temporary wetland impacts will be restored following construction. The proposed creek restoration and installation of fish-passable culverts are not expected to result in the permanent loss of wetland habitat.

The restoration of existing paved buffer areas will result in approximately of 0.5-acre of restored riparian habitat along Riverton Creek. Approximately 0.1 acre of riparian vegetation will be restored along the West Branch of Riverton Creek and 0.4 acre will be restored along the East Branch. Localized temporary impacts to buffer vegetation are expected to occur with the associated aquatic habitat restoration, and all temporarily impacted buffer vegetation will be restored with in-kind with species native to the Pacific Northwest. Opportunities to further enhance or restore wetland buffers along the northern edge of the South Annex Base site and within the SR 599 right-of-way may be pursued in coordination with WSDOT as feasible.

S. Construction Impacts

Describe the construction plan and identify impacts due to construction noise, utility disruption, debris and spoil disposal, and staging areas. Address air and water quality impacts, safety and security issues, and disruptions to traffic and access to property.

☐ No

☒ Yes

If Yes, please describe potential impacts.

Demolition and construction is scheduled to last for approximately 5 years beginning in late 2021 and ending sometime in 2027. Contractor staging is anticipated to occur on site within existing paved or previously disturbed areas, or on lots adjacent to the project site, such as South Facilities that abuts the redevelopment area to the west.

Construction Noise

Noise related to construction varies greatly depending on the type of construction activity, duration of the activity, the distance between the receiver and the source, and the topographical conditions between the source and receiver. In general, noise levels produced for this project will be similar to the noise produced during construction of major infrastructure projects or industrial facilities. The loudest noise sources in use during construction would include cement mixers, concrete pumps, soil compactors, cranes, dozers, pavers, jackhammers, graders, haul trucks, and tractor-trailers. The equipment would be required for clearing, grading and site preparation, construction of structures and paving. Soil drills may also be needed for installation of support columns. Jackhammers, dozers, graders and soil compactors would be used to clear the site, compact the substrate and prepare for final paving. Cranes would be employed to construct structures and rooftop equipment installation. Other less notable noise-producing equipment could include backhoes, air compressors, forklifts, pumps, power generators, service trucks, and utility trucks.

Construction noise impacts can be reduced with operational methods and scheduling, equipment choice, and acoustical treatments. Any potential nighttime construction would be governed by noise-level limits established through the City of Tukwila's noise variance approval and would use noise-control measures where necessary. Noise control may include the following measures, where required:

- Using low-noise emission equipment
- Implementing noise-deadening measures for truck loading and operations
- Monitoring and maintenance of equipment to meet noise limits
- Using lined or covered storage bins, conveyors and chutes with sound-deadening materials
- Prohibiting or limiting the use of jackhammers, pile driving, and other loud construction activities during nighttime hours

Utility Disruption

Existing utilities will be affected by the project due to the demolition and clearing necessary for redevelopment of the South Annex Base site. Utility service will be temporarily, perhaps intermittently, disrupted prior to opening the South Annex Base for operations, after which all services will be restored. Temporary utilities (e.g., electric) will be installed as necessary to support construction management. Coordination with utility providers will include pre-construction notifications and post-construction operational permits and utility agreements prior

to completing construction. Additional utilities may be temporarily disrupted or relocated during the fish-passable culvert installations along S 120th Place and installation of the new traffic signal at the intersection of S 120th Place and E Marginal Way S. All temporarily interrupted utilities will be restored as soon as possible following different construction elements over the 39-month construction period.

Debris Disposal

Debris generated from demolition and clearing activities will be disposed of at properly licensed off site locations approved by Metro. Construction and demolition debris will be diverted from landfills and recycled to the maximum extent practical. A Phase II ESA was completed. No contaminated soils are expected to be encountered during construction of the South Annex Base project. Unanticipated hazardous material possibly encountered during construction will be promptly removed and disposed of a licensed facility approved for hazardous waste material.

Air Quality Impacts

Fugitive dust from construction operations and emissions from construction equipment and vehicles could temporarily impact air quality in the project area. The overall effect on air quality during construction will vary with construction activity. Construction impacts may include fugitive dust, criteria pollutants and greenhouse gases, and odors associated with paving. BMPs will be used to minimize the impacts of fugitive dust resulting from construction activities. Standard practices to control emissions of Particulate Matter (PM) 10, PM2.5, CO, and nitrogen oxides (NOX) would be used during construction. These BMPs would be expected to reduce construction related greenhouse gas emissions.

Water Quality Impacts

As stated previously in Section N (Biological), Section Q (Water Quality), and Section R (Wetlands), no adverse impacts to water quality during construction are anticipated because soil disturbing activities will be conducted in isolation of the two branches of Riverton Creek and the associated wetlands. Stream bypass pipes will be installed during the restoration of Riverton Creek and culvert replacements. A site specific SWPPP with Temporary Erosion and Sediment Control (TESC) measures will be implemented prior to and throughout construction, along with water quality monitoring as required per the CSGP issued by Ecology. A SPCC Plan will also be prepared and implemented to further minimize the risk of adversely impacting water quality during construction.

Safety and Security Issues

Typical safety and security issues for construction projects in urbanized settings are expected. A metal fence with high visibility plastic fencing may be installed around the project perimeter to reduce the potential for injury or harm from trespassing, equipment theft, and vandalism. Metro's South Base operates throughout the day and night and is expected to provide a continuous presence to deter people from entering the construction site after hours. A site-specific Health and Safety Plan (HSP) will be prepared prior to and implemented through construction to minimize potential harm to workers.

Disruptions to Traffic and Access to Property

Project construction will include temporary lane closures along at least one lane of E Marginal Way S to install frontage improvements and along S 120th Place (a private access road) for the installation of fish passable box culverts and repaving. Traffic control measures will ensure that traffic on E Marginal Way S will continue to flow during construction. Alternative access to

businesses that use S 120th Place is available from other driveways within the industrial park. Potential delays or disruptions to traffic flow will be isolated and are not anticipated to impact the North Tukwila MIC or businesses along E Marginal Way S. The project will require temporary construction easements for improvements to S 120th Place and the installation of fish-passable box culverts.

Construction staging and related activities may also occur on Metro-owned property at South Facilities (west of the redevelopment area) and at South Base (east of E Marginal Way S right-of-way). Construction work may also occur within WSDOT's SR 599 right-of way to support daylighting and riparian enhancements but no impacts to traffic are anticipated because the area would be accessed from the South Annex Base site rather than the highway.

T. Cumulative and Indirect Impacts

Are cumulative and indirect impacts likely?

☐ No

☒ Yes,

If Yes, please describe the reasonably foreseeable impacts:

a) **Cumulative impacts** (which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency – Federal or non-Federal – or person undertakes them. Cumulative impacts can result from individually minor but collectively significant actions taking place over a time period.)

South Annex Base will support King County Metro's long-term goals of expanding transit service and transitioning to a zero-emission bus fleet. As part of its service expansion, Metro is in the process of preparing various facilities master plans, including a South Campus Master Plan to identify all potential facilities projects. Facilities that make up the South Campus—South Base, Interim Base, South Facilities, and new South Annex Base—are on previously developed land that may remain as-is or may be partially redeveloped to support expanding service and the goal of a zero-emission fleet, or others goals of the METRO CONNECTS and South Campus Master Plans. The expansion of bus storage at Interim Base will be connected to, and buses will be serviced by facilities on, South Base. Redevelopment would trigger compliance with all applicable development codes and policies, including stormwater management, critical areas ordinances, right-of-way improvements, parking, landscaping, and others. In many cases, this could result in a modest improvement in conditions such as stormwater management and water quality/flow control.

Cumulative Impacts

Insignificant or *de minimis* cumulative impacts are possible due to increased traffic (workers' personal vehicles and buses) on South Campus as a whole. South Annex Base will add approximately 1,630 new daily vehicle trips to the region. This is well within the service capacity of the area road network and is not anticipated to exceed the City of Tukwila's adopted Level of Service standards for study intersections. Most traffic will occur outside of AM and PM peak hours for both South Annex Base and Interim Base, reducing the potential traffic impacts substantially.

A temporary minor impact to air quality is possible from the hybrid diesel-electric fleet during the transition to an all-electric fleet. Regional air quality complies with applicable national air quality standards and that compliance will not change as a result of South Annex Base or a combination of South Annex Base and other projects in the vicinity. Minor impacts to traffic and air quality are anticipated to be offset by increased transit ridership.

The project, in combination with Interim Base and potential electrification projects at South Base, will cause an increase in energy usage at Metro's South Campus. Energy is purchased from Seattle City Light, which uses a substantially renewable energy source mix. Increases in the use of electricity are anticipated to be offset by the reduction in use of fossil fuels as a primary fuel source.

b) **Indirect impacts** (which are caused by the action but are later in time or farther removed in distance yet are still reasonably foreseeable. Indirect impacts may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air, water, and other natural systems, including ecosystems.)

Indirect Impacts

The project is not anticipated to cause negative indirect impacts. Metro's service expansion is based upon projected transit ridership, which in turn derives from local and regional agency growth plans, policies, and built conditions. Bus routes operating from the South Annex Base site are not anticipated to impact population or employment growth, change land use patterns, increase or decrease population density or growth rates. An increase in transit ridership is anticipated to improve traffic and air quality compared to future conditions with no increased transit ridership because transit ridership implies reduced use of single occupant vehicles and consequently reduced air emissions.

As discussed in Section Q (Water Quality), the project will result in a net reduction of pollution generating impervious and pervious surface of approximately 3,000 square feet relative to existing conditions. The project site will be redeveloped in accordance with the current stormwater management standards using the KCSWDM, which will likely result in improved water quality and flow rates from stormwater discharging from the project site due to more stringent design standards. Incidental pollution generation from fuel sources is expected to decline over time as the South Annex Base converts to an all-electric bus fleet. Potential long-term indirect impacts may include improved water quality provided by updated stormwater facilities on site and conversion of paved surfaces to vegetated riparian buffer to increase infiltration relative to existing conditions.

U. Property Acquisition

Will the project acquire any real properties?

☒ No

☐ Yes

If Yes, please indicate whether the property acquisition will result in relocation of businesses or individuals. (**Note:** For real property acquisitions valued over $1,000,000, FTA concurrence in the property's appraisal/valuation is required. Please contact your assigned FTA Region 10 Grant Representative if you have any questions.)

Property will not be acquired as part of the South Annex Base project. Metro owns the site and has operated various functions on it since approximately 1985.

Acquisition of temporary construction easements may be necessary along S 120th Place, a private access road. Metro has an easement along E Marginal Way S for frontage improvements and signalization, in WSDOT right-of-way and on adjacent properties for the installation of fish-passable culverts. Acquisition of temporary construction easements will not result in displacements of businesses, residences, or tenants.

V. Energy

Does the project include construction or reconstruction of a building, identify measures to conserve energy which will be employed? (This includes building materials and techniques used for construction; special innovative conservation features; fuel use for heating, cooling, and operations; and alternative renewable energy sources.)

☐ No

☒ Yes

If Yes, please describe.

The South Annex Base will include a new maintenance and operations building. The new building will be designed to achieve LEEDv4 Platinum certification. An energy conservation analysis was conducted by Metro's consultant, Otak, that included compliance with the following energy conservation-related credits:

- Fundamental Commissioning and Verification (Prerequisite)
- Minimum Energy Performance (Prerequisite)
- Building-Level Energy Metering (Prerequisite)
- Enhanced Commissioning
- Optimize Energy Performance
- Advanced Energy Metering
- Demand Response
- Renewable Energy Production

Compliance with these credits requires the incorporation of project design elements at all levels from passive building design to fixture selection to occupant-controlled features. The building itself will be designed to reduce energy requirements using high-performance building envelope and glazing features, shading strategies, natural ventilation strategies, high-efficiency HVAC design, and solar panel systems for on-site renewable energy production. Fixtures will use LEDs to reduce lighting-related energy demand. Plug load reduction strategies will be implemented, including use of energy-efficient appliances and education for building occupants. Energy is purchased from Seattle City Light, which uses a substantially renewable energy source mix.

Energy modeling will inform building design to achieve the desired energy performance. Energy usage will be monitored using metering systems and a data software package for tracking energy usage.

The installation of an electric bus charging system and ground-based electrical infrastructure is expected to increase electricity use on site relative to existing consumption levels, but the transition to an all-electric bus fleet will also reduce the consumption of petroleum-based fossil fuels. The South Annex Base will also contribute to regional reduction in energy usage by encouraging increased public transit ridership rather than driving alone in private vehicles.

W. Public Involvement

Please describe public outreach efforts undertaken on behalf of the project. Indicate opportunities for public meetings (e.g., board meetings, open houses, special hearings). Indicate any significant concerns expressed by agencies or the public regarding the project.

Metro conducted a community outreach meeting with stakeholder organizations in the region. This roundtable event is summarized below.

Equity and Social Justice Community Roundtable

On August 29, 2019, Metro hosted a community roundtable meeting and site visit to initiate conversations about equity and social justice measures that could be implemented as part of the project design and construction per King County's internal policies. These equity and social justice measures provide discrete benefits tailored to community preferences.

Following the community roundtable, Metro hosted an internal equity and social justice workshop to review community feedback and develop solutions to be integrated into project design

A plan for public outreach has been developed for South Campus activities and for South Annex Base redevelopment. The plan will be implemented by Metro during the next stage of design, from 30 percent to construction. The plan outlines anticipated community outreach activities, such as virtual community and stakeholder meetings, interactive online open houses, community mailers, and informational signage and an information booth at Metro's South Campus. The communications plan for South Annex Base also addresses coordination with the City of Tukwila.

X. Mitigation Measures

Please describe all measures to be taken to mitigate project impacts.

Permanent impacts from the South Annex Base redevelopment project are anticipated to have long term environmental benefits that would therefore not require mitigation. Such benefits would include reduction in fossil-fuel consumption and greenhouse gas emissions from utilization of an all-electric bus fleet, updated stormwater infrastructure that meets current regulations, three new fish passable culverts, and restoration of both branches of Riverton Creek and associated riparian habitat. The new building will be designed to achieve LEEDv4 Platinum certification, which includes design measures and operational needs oriented towards energy conservation. Additionally, the redevelopment footprint utilizes the existing developed land area and avoids permanently impacting functioning sensitive environmental areas such as wetlands, streams, or their buffers.

Metro will follow all relevant Federal, state, and local regulations for construction and operation of the South Annex Base project. Metro will also develop and implement site- and project-specific Best Management Practices (BMPs) prior to construction for water quality, erosion, hazardous materials, and air quality. The following measures will be implemented as part of the project to avoid and/or minimize impacts during construction:

Businesses and Residents

King County Metro will implement the following mitigation measures to minimize impacts of the South Annex Base project on nearby residential neighborhoods and businesses:

- Metro will implement the Public Outreach Strategy prepared for South Campus projects, including specific outreach methods identified for South Annex Base.
- Metro will maintain access to all adjacent properties during the period of construction. During project phases affecting access, provide detour signage to assist residents, employees, and visitors to affected buildings or properties.
- Metro will minimize utility disruptions as much as possible, including performing utility connections outside of regular working hours when necessary. If utility disruptions are necessary, Metro will notify business and residents in advance of utility work.
- Metro will provide fair compensation, as determined by a qualified appraiser pursuant to Chapter 8.26 RCW *Relocation Assistance – Real Property Acquisition Policy*, to the owners of properties for which Metro requires temporary construction easements.
- Metro will restore temporary construction easement areas to their pre-construction condition or better when use of the easement area is complete.

Traffic

Metro will implement the following mitigation measures to minimize traffic-related impacts resulting from construction of the South Annex Base project:

- During project construction phases requiring temporary travel lane, bicycle lane, and/or sidewalk closures, Metro will provide traffic control and/or alternative routes along E Marginal Way S that are clearly marked.
- Metro will require certified flaggers to be present during construction hours when construction vehicles and/or delivery vehicles are active on the site. Metro will require the

use of certified flaggers to control construction trucks and equipment entering and exiting the site onto city streets for movements involving backing onto, along, or out of S 120th Place or the project site.

- Metro will require parking of equipment or vehicles associated with the project to be within the site boundaries or at authorized off-site locations. Metro will not allow construction vehicle parking on city rights-of-way or private roadways unless by mutual agreement between Metro and the City of Tukwila or other entities with applicable rights.
- Metro will obtain all required right-of-way permits required for construction activities and comply with conditions of approval during construction.

Air Quality

The Puget Sound Clean Air Agency requires the implementation of BMPs to minimize the impacts of fugitive dust and emissions resulting from construction activities:

- Metro will require the contractor spray exposed soils with a dust control agent, such as water, as necessary to reduce emission and deposition of particulate matter.
- Metro will require contractors to cover all loads of soil and wet materials before transport or provide adequate freeboard to reduce emission and deposition of particulates during transport.
- Metro will provide wheel washes to reduce dust and mud that would be carried off-site by vehicles and decrease particulate matter on area roadways.
- Metro will provide regular street sweeping coordinated with the City of Tukwila to remove the dust and mud that are deposited on paved, public roads.
- Where practicable, Metro will require the contractor to route and schedule high volumes of construction traffic to reduce additional congestion during peak travel periods and reduce vehicle emissions.
- Metro will require appropriate emission-control devices on all construction equipment powered by gasoline or diesel fuel to reduce vehicle exhaust emissions.
- Metro will require the contractor to use well-maintained vehicles and heavy equipment to reduce emissions.
- Metro will require the contractor to cover, install mulch, or plant vegetation on exposed soils as soon as practicable after grading to reduce windblown particulate matter.
- Metro will encourage contractors to employ emission-reduction technologies and practices for both on-road and off-road equipment and vehicles.
- Metro will implement idling restrictions for construction trucks and equipment.
- Metro will require all stationary equipment used for construction activities to comply with Puget Sound Clean Air Agency regulations requiring the best available measures to control the emissions of odor-bearing air contaminants.

Noise and Vibration

Construction of the South Annex Base project is required to comply with applicable noise regulations adopted by the City of Tukwila in Tukwila Municipal Code Chapter 8.22 *Noise.* Metro will implement the following mitigation measures to minimize noise and vibration impacts related to construction of South Annex Base:

- Metro will require the contractor to consider operational methods, scheduling, equipment choice, and acoustical treatments to reasonably reduce noise generated by construction activities, vehicles, and equipment.

- Metro will require the contractor to use, where practicable, low-noise equipment and tools.
- Metro will require the contractor to manage truck loading and operations to implement noise abatement measures such as bed liners, prohibition on tailgate banging, and the use of ambient-sensitive backup alarms (i.e., self-adjusting and/or directional backup alarms).
- Metro will require the contractor to use well-maintained vehicles and heavy equipment to reduce potential noise impacts.
- Metro will require the use of lined or covered storage bins, conveyors, and chutes.
- Metro will limit, as much as practicable, noisy nighttime construction activities. Any nighttime construction activities must comply with additional noise level restrictions set forth in TMC 8.22. Metro will prohibit jackhammering during nighttime hours.
- Metro will obtain any required noise variances required for construction activities and comply with conditions of approval during construction.
- Metro will require the contractor to consider, where practicable, the use of alternative construction methods or equipment to reduce vibration, such as the use of static roller compactors instead of vibratory compactors.
- Metro will require, where practicable, activities with potential for vibration impact to be restricted to shorter periods and daytime hours when vibrations and noise are less noticeable.

Cultural Resources

Metro has prepared an Inadvertent Discovery Plan approved through the Section 106 consultation and concurrence process with the FTA. Metro will distribute the IDP at a pre-construction meeting in which an archaeologist briefs the construction crew on the IDP, require the contractor to keep a copy at all construction locations, and require the contractor and all on-site personnel to follow the plan during construction.

Biological Resources and Water Quality

Work will be performed in and adjacent to the East and West Branches of Riverton Creek and associated Wetland A to daylight the streams and install upgraded fish-passable culverts. Metro will implement the following BMPs to reduce impacts to the streams and wetland:

- Metro will require compliance with approved temporary erosion and sediment control (TESC) plans, including installation and regular maintenance of TESC measures.
- Metro will require the contractor to stake clearing limits with high-visibility construction fencing to protect critical areas and avoid unnecessary vegetation removal prior to beginning grading activities on the site.
- Metro will require compliance with an approved Stormwater Pollution Prevention Plan (SWPPP) and a Spill Prevention Control and Countermeasure (SPCC) plan. Fluids associated with construction equipment will be kept in spill-proof containers away from waterbodies and buffers, and equipment will be maintained and monitored for potential leaks.
- Metro will require project design to minimize the amount of exposed soils to reduce the potential for erosion and soil mobility. Metro will require exposed soils to be covered, mulched, or planted as soon as practicable after grading.
- Metro will obtain all required permits and approvals from the Washington Department of Ecology, Washington Department of Fish and Wildlife, US Army Corps of Engineers, and

National Marine Fisheries Service prior to beginning construction activities and will comply with all conditions of approval including potential in-water work windows, stream bypass requirements, and dewatering requirements.

- Metro will require restoration plantings to be installed in the first fall season following construction or will require the installation of irrigation to allow earlier installation of restoration plantings.
- Metro will restore temporary impact areas to existing or better conditions in accordance with City of Tukwila regulations.

Debris Disposal

- Metro will dispose of debris, including unanticipated contaminated soil or hazardous materials generated from demolition and clearing activities at properly licensed off site locations.

Lighting

- All lights will be downshielded, directed inward, diffused, or otherwise oriented or installed to prevent light spillover onto adjacent properties and rights of way as much as practicable while still meeting safety standards on the site.

Y. Other Federal Actions

Please provide a list of other federal NEPA actions related to the proposed project or in the vicinity, if applicable.

Metro's South Campus includes South Base, Interim Base, South Facilities, and the South Base Training and Safety Center and South Construction Office, which currently occupies the site that will be redeveloped into the South Annex Base.

South Campus is currently expanding with the current construction of Interim Base, a 128-bus facility south of South Base with operations and maintenance facilities on site set to open in 2021, and modifications to a recently-acquired 587 space parking garage for employees and visitors at the South Campus. The South Interim Base will come online for buses within the next two years and may be equipped with electric charging infrastructure prior to the opening of South Base. The parking garage on South Interim Base will continue to serve employee parking for the South Campus.

Metro may request funding from FTA for future projects related to the expansion of the South Campus. Coordination between FTA and Metro is ongoing for these future projects to ensure compliance with NEPA and that future projects at the South Campus will be eligible for funding assistance from FTA if requested.

Z. State and Local Policies and Ordinances

Is the project in compliance with all applicable state and local policies and ordinances?

☐ No

If No, please describe the non-compliance.

☒ Yes

The proposed South Annex Base use is consistent with City of Tukwila zoning and will be designed to be consistent with applicable design, dimensional, parking, access, and environmental regulations in effect at the time of permit submittal. City of Tukwila entitlements and construction permits will be required for the work, including an Unclassified Use Permit, which will require approval by the City Council. The approximate 40-year history of Metro operations in this area and the City's prior actions indicate the project is likely to be successfully entitled.

The project is being designed to comply with all federal, state, and local policies, ordinances, and regulations.

AA. Related Federal and State/Local Actions

Check all that apply below.

- ☒ Corps of Engineers Permit (e.g., Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act)
- ☒ Coastal Zone Management Certification
- ☒ Critical Area Ordinance Permit
- ☒ Endangered Species Act and Magnuson-Stevens Fishery Conservation and Management Act Consultation
- ☐ Floodplain Development Permit
- ☐ Forest Practices Act Permit
- ☒ Hydraulic Project Approval
- ☒ Local Building or Site Development Permits
- ☒ Local Clearing and Grubbing Permit
- ☒ National Pollutant Discharge Elimination System General Construction Permit
- ☐ Shoreline Permit
- ☒ Solid Waste Discharge Permit
- ☐ Sole Source Aquifer Consultation (Safe Drinking Water Act of 1974)
- ☐ Section 4(f) (Historic or Recreational Properties; Wildlife Refuges)
- ☐ Section 6(f) (Recreational Properties with Land and Water Conservation Fund Act funding)
- ☒ Section 106 Consultation (National Historic Preservation Act)
- ☒ Stormwater Site Plan (SSP)
- ☒ Temporary Erosion and Sediment Control Plan (TESC)
- ☐ U.S. Coast Guard Permit
- ☐ Water Rights Permit
- ☒ Water Quality Certification - Section 401 of the Clean Water Act
- ☐ Tribal Consultation or Permits (if any, describe below)
- ☐ Other

Others (Please describe, if applicable):

Please submit this completed form and any attachments electronically to fta.tro10mail@dot.gov and cc: your assigned FTA Region 10 Grant Representative. Please contact the FTA Region 10 Office if you are unsure about these procedures or have any questions.

Federal Transit Administration, Region 10
915 2nd Avenue, Suite 3142
Seattle, WA 98174-1002

Phone: (206) 220-7954
Email: fta.tro10mail@dot.gov

FIGURE 1
VICINITY MAP

SOUTH ANNEX BASE
11911 E MARGINAL WAY S
TUKWILA, WASHINGTON

LEGEND

- Parcels
- Future South Annex Base

N

FEET
0 500 1,000

Otak

K:\PROJECT\32800\32870\CADD\GIS\MXDS\ENVIRONMENTAL_SOUTHBASEANNEXVICINITYMAP.MXD
DATE: 11/4/2020

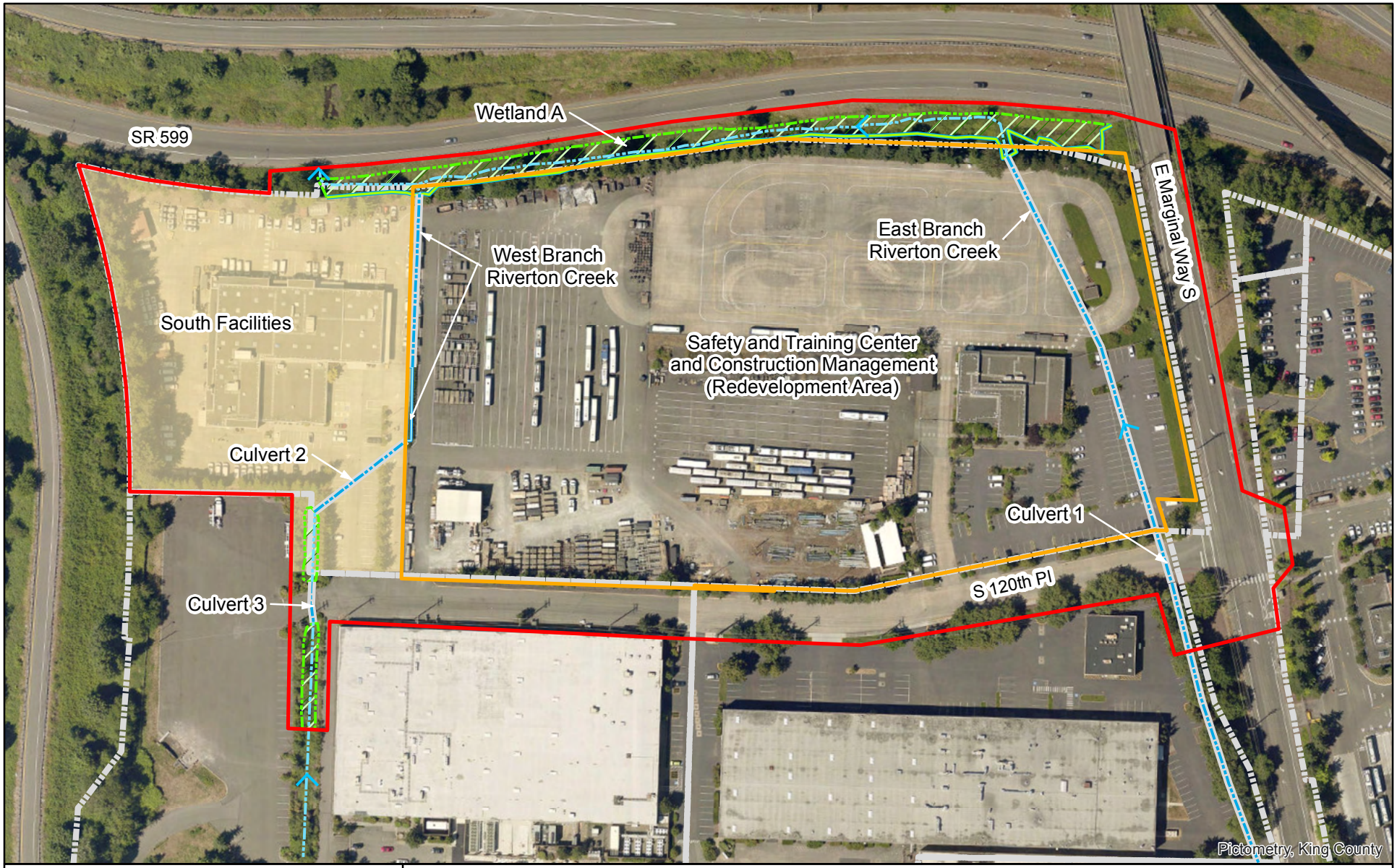


FIGURE 2
EXISTING CONDITIONS

SOUTH ANNEX BASE
11911 E MARGINAL WAY S TUKWILA,
WASHINGTON

Legend

- Future South Annex Base
- Area of Potential Effects (APE)
- Parcels
- South Facilities
- Piped Stream
- Estimated Low Flow Channel
- Direction of Flow
- Delineated Wetland/OHWM Boundary
- Wetlands-Estimated Boundary
- Delineated OHWM

N

0 100 200 400 Feet

Otak

K:\PROJECT\32800\32870\CADD\GIS\MXDS\SOUTH BASE ANNEX- ENVIRONMENTAL\FIGURE 2 - EXISTING CONDITIONS MAP_BA_CORRECTED SCALE BAR_042020.MXD

FIGURE 3

METRO SOUTH CAMPUS

South Annex Base

South Campus

40’ Battery Coach	100 + 38 (Storage)
60’ Battery Coach	90 + 28 (Storage)
Total Coaches	256
Total bays	22

HWY 599

Proposed Restoration of Riverton Creek (West Branch)

Proposed restoration of Riverton Creek (East Branch) and riparian restoration (in green)

SOUTH FACILITIES
(NOT INCLUDED IN PROJECT)

Section A

STEAM

12 + 50

BAYS (22)

15 + 50

OFFICES/PARTS

OPERATIONS BUILDING

Install fish-passable culvert #2

FUEL

WASH

H.S.

ELECTRICAL INFRASTRUCTURE

S 120TH PL

Install fish-passable culvert #1

Install fish-passable culvert #3

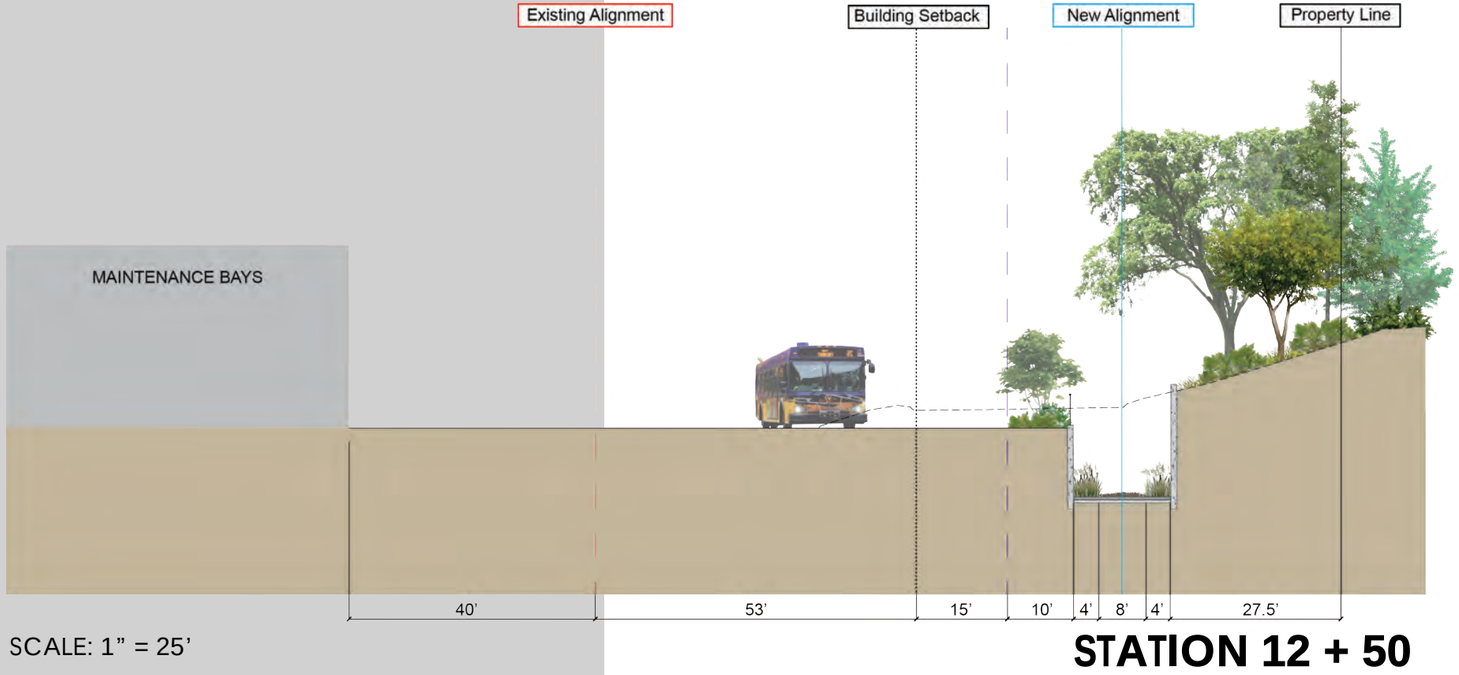
E MARGINAL WAY S

LEGEND

- Entry
- Exit
- Circulation Route
- 40’ Battery Coach
- 60’ Battery Coach
- Existing Stream
- Existing Parcel Line
- Queuing Area
- 15’ Building Setback
- 100’ Stream & Wetland Buffer
- Existing Stream Alignment
- Proposed Building
- Existing Wetland
- (6) Chargers
- Gantry with Charging Heads

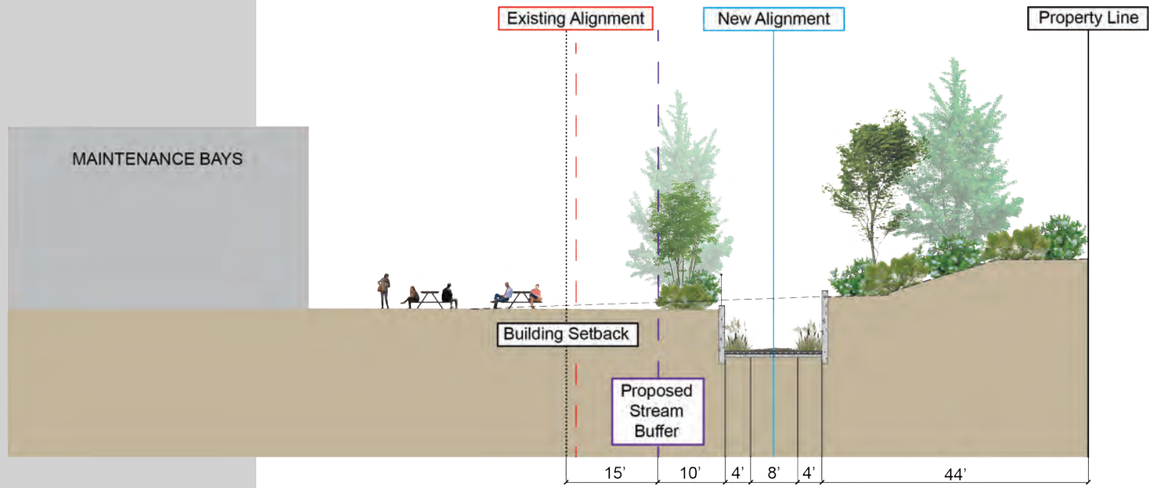
50’ 0’ 50’ 100’
SCALE IN FEET

FIGURE 4
CONCEPTUAL SITE DEVELOPMENT AND RIVERTON CREEK RESTORATION PLAN



SCALE: 1" = 25'

STATION 12 + 50



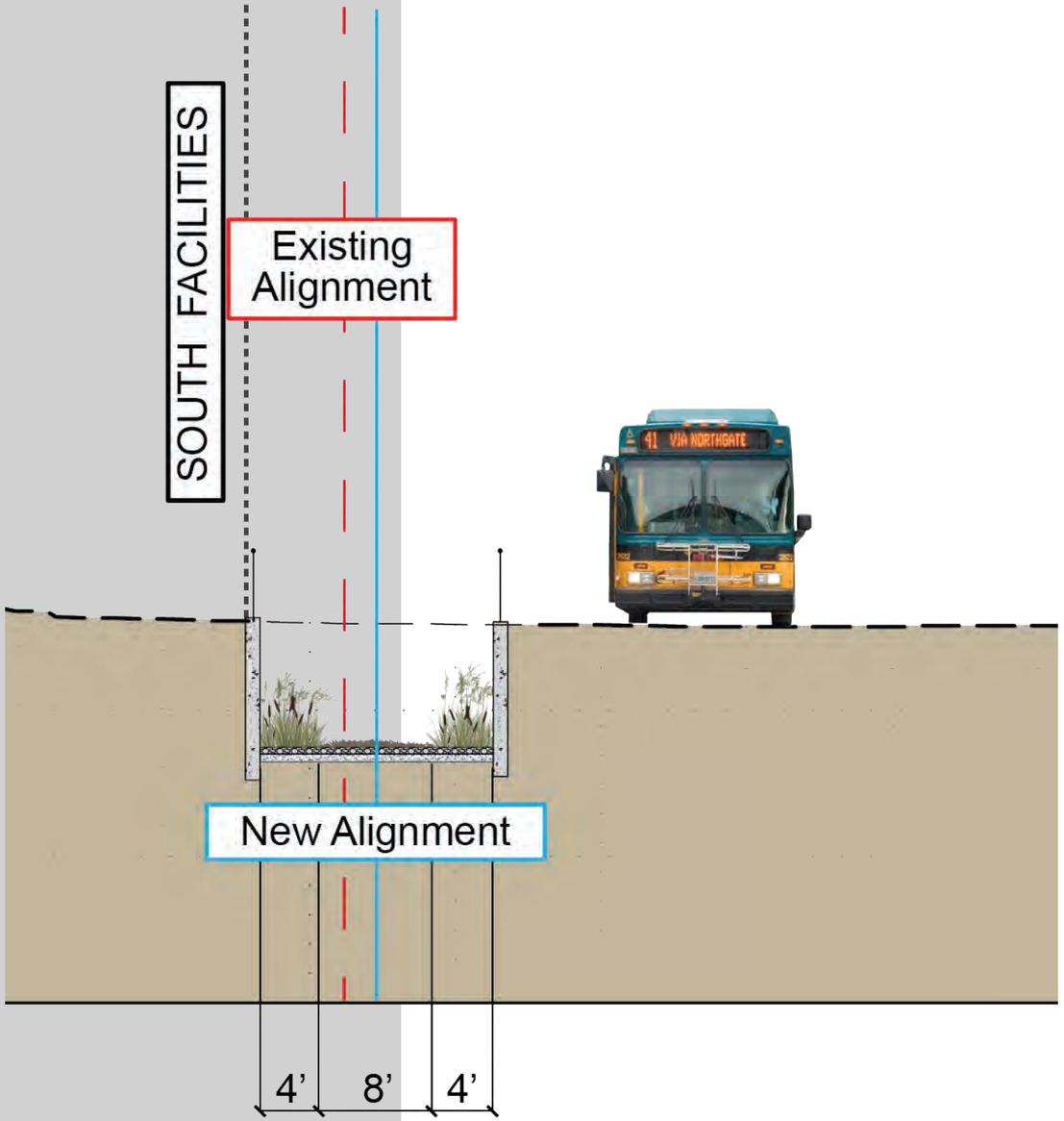
SCALE: 1" = 25'

STATION 15 + 50

Station cross sections locations are shown on Figure 3.

FIGURE 5

CROSS SECTION - EAST BRANCH RIVERTON CREEK RESTORATION PLAN



SCALE: 1” = 10’

SECTION A

Cross section locations are shown on Figure 3.

FIGURE 6
CROSS SECTION - WEST BRANCH RIVERTON CREEK RESTORATION PLAN

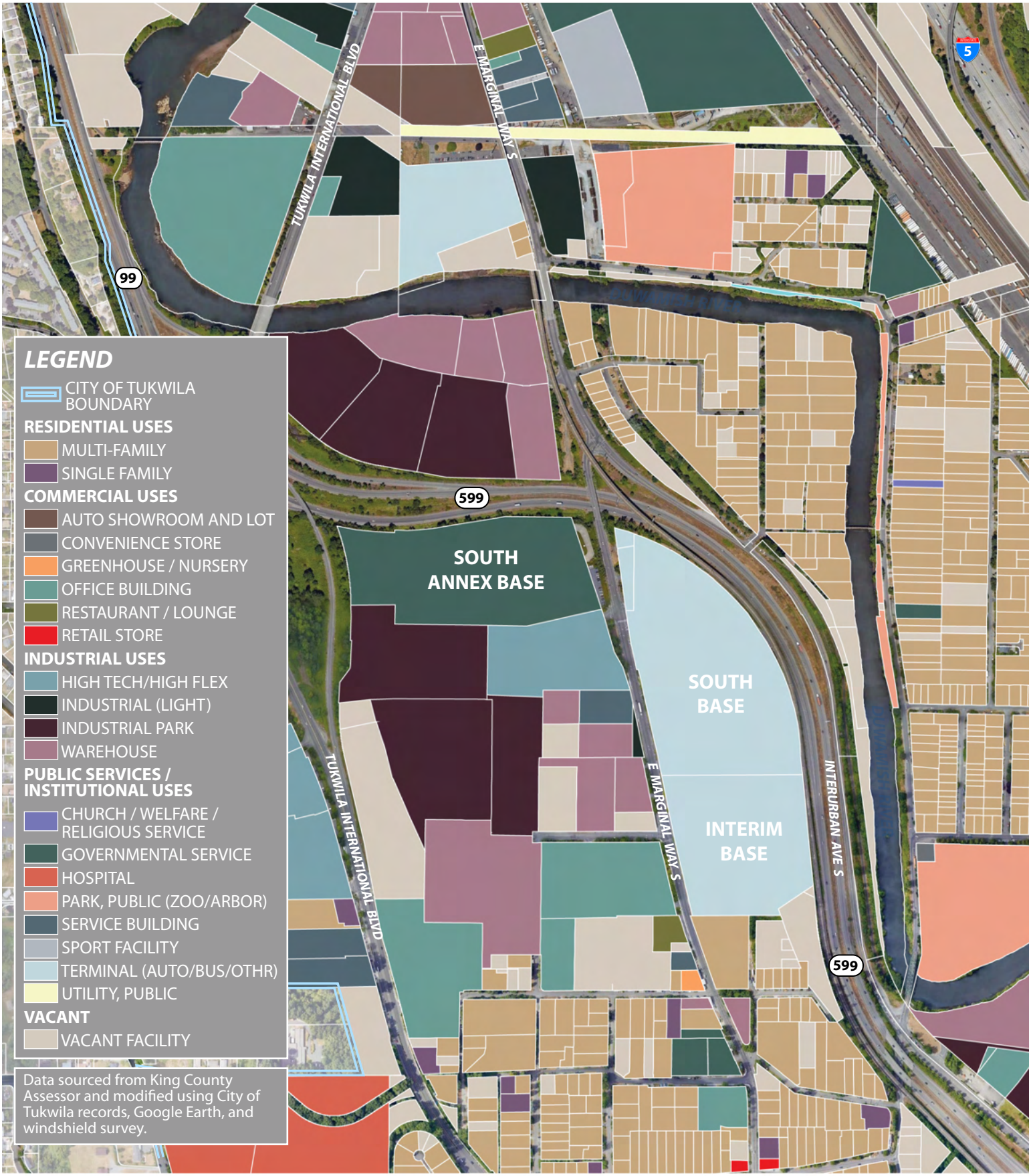


FIGURE 7

CURRENT LAND USE MAP King County

SOUTH ANNEX BASE

APRIL 2020

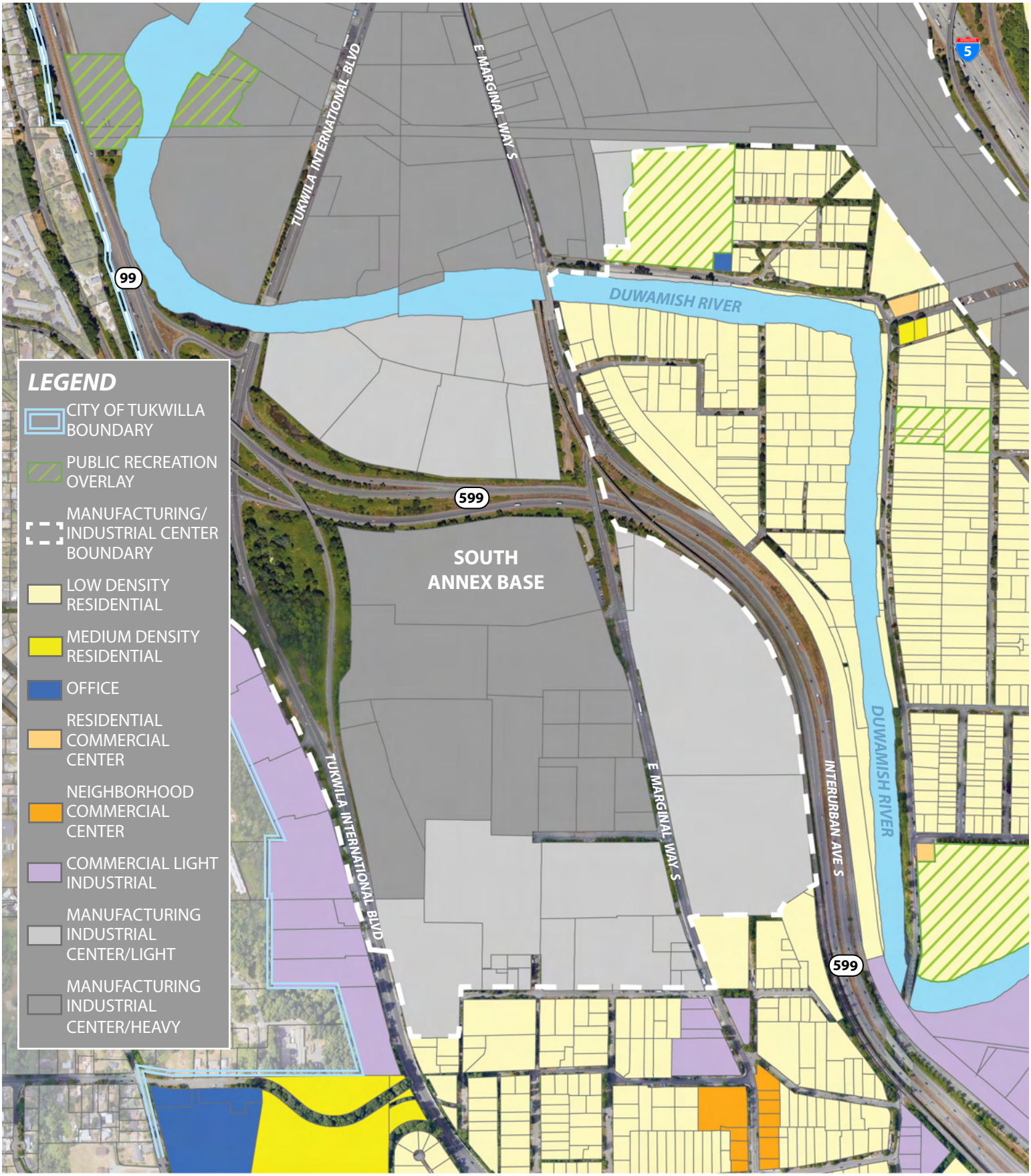


FIGURE 8

COMPREHENSIVE PLAN & ZONING MAP City of Tukwila

SOUTH ANNEX BASE
APRIL 2020

0' 350' 700'
SCALE IN FEET

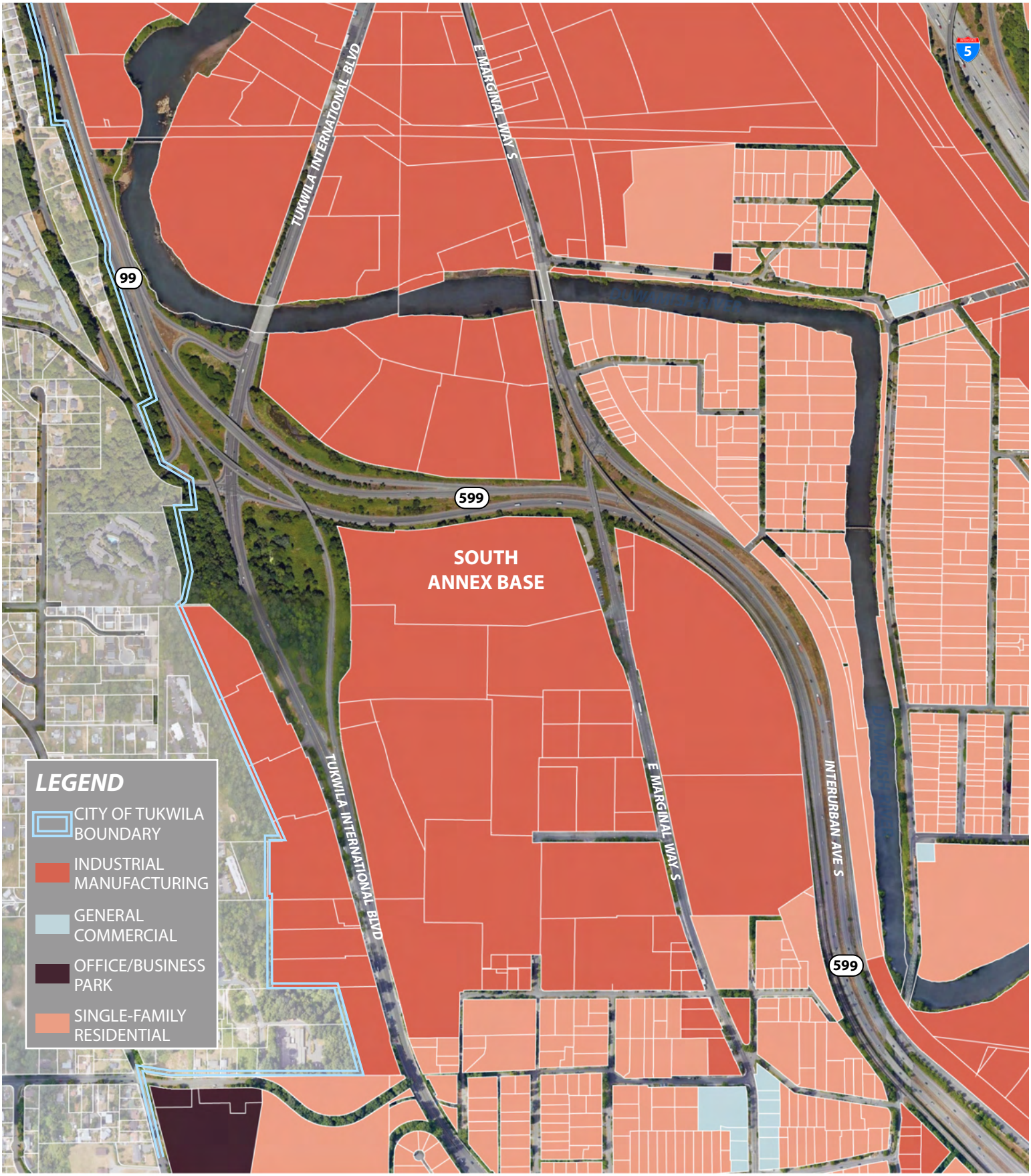


FIGURE 9

COMPREHENSIVE PLAN LAND USE MAP King County

0' 350' 700'
SCALE IN FEET