

Project Title: Tacoma Link Expansion (Vehicles)
Agency: Sound Transit

TCC TECHNICAL APPLICATION
2014
PIERCE COUNTY REGIONAL COUNCIL
REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM (TIP)
APPLICATION FORM TO REQUEST INCLUSION OF A PROJECT IN THE FFY 2015-2017 TIP

Supplementary information can be found in the appendices of the application packet. Incomplete or missing answers will be scored zero. Please respond to all unrelated questions with N/A.

APPLICANT INFORMATION

1. Please select an application type:

- Other**
(Please answer Questions 1-23 and 55-63)
Potential score of 100
- Non-Motorized**
(Please answer Questions 1-23 and 49-54)
Potential score of 100
- Preservation**
(Please answer Questions 1-23 and 38-48)
Potential score of 100
- Rural**
(Please answer Questions 1-23 and 73-81)
Potential score of 100
- Transit**
(Please answer Questions 1-23 and 64-72)
Potential score of 100
- Roadway application type not listed above**
(Please answer Questions 1-23 and 24-37)
Potential score of 100

1a. Agency Contact Person

Name: Lisa Wolterink Address: 401 S Jackson St Seattle, WA 98104
Title: Grants Division Manager Telephone: 206-689-3359
Email: Lisa.Wolterink@soundtransit.org

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2. **Improvement Type:** Please select ONE primary Improvement Type. Please indicate one Primary Improvement (PI) and any number of Secondary Improvements (SI).

ROADWAY		
	New Facility – Roadway	Bridge Replacement
	Relocation – Roadway	Multiple Intersections – Roadway
	Environmental Improvement – Roadway	Single Intersection – Roadway
	Major Widening – General Purpose	Safety – Roadway
	Major Widening – HOV	Grade Separation
	Minor Widening – No new capacity	Major Interchange – GP
	Minor Widening – New capacity	Major Interchange – HOV
	Preservation/Maintenance/Reconstruction	Minor Interchange – GP
	Resurfacing	Minor Interchange – HOV
	New Bridge or Bridge Widening	Other – Roadway
	Bridge Rehabilitation	
NONMOTORIZED		
	Sidewalk	Bike Lanes
	Regional Trail (Separate Facility)	Other – Nonmotorized
	Non-Regional Trail (Separate Facility)	
OTHER		
	Transportation System Management	Transportation Demand Management
	Intelligent Transportation System	Other – Special
	Study or Planning activity	
TRANSIT		
PI	New/Relocated Transit Alignment	New ferry route
SI	Transit Center or Station – new or expansion	Service Expansion – Ferry
	Flyer Stop	New/Relocated/Expanded terminal
	Transit Center or Station – Maintenance	Terminal Preservation
	Park and Ride (new facility or expansion)	New/Replacement Vessels – Passenger Only
SI	Vehicle Expansion	New/Replacement Vessels – Car/Pass
	Vehicle Replacement	Vessel Preservation/Rehabilitation
	Operations – Transit	Operations – Ferry
SI	Service Expansion – Transit	Other – Ferry
	Other – Transit	

PROJECT LOCATION INFORMATION

(Roadway projects without a federal route number or a federal functional class may be ineligible for federal funds.)

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3. **Project Location:** The Tacoma Link Expansion alignment would continue north from the existing Theater District Station along Stadium Way to the intersection of North First Street and Division Avenue, then from the intersection of North 1st Street and Division Avenue to Martin Luther King Way and South 19th Street. Tacoma Link Expansion serves downtown Tacoma, Stadium District, the Medical Mile and Hilltop District.

From: Theatre District Station /S 9th in downtown Tacoma To: Hilltop District (MLK Jr Way and S 19th St)
Or, other appropriate locating information: _____

Project Length: The expansion is an additional 2.4 miles (miles)

4. **Federal Route Number** N/A

5. **Federal Functional Class:** Stadium Way and Division are minor arterials. MLK Jr Way is a major collector.
see link www.wsdot.wa.gov/Mapsdata/tools/functionalclass

5a. **Posted Speed Limit:** N/A

5b. **Average Daily Traffic Volume:** N/A

PROJECT DESCRIPTION

6. **Funding Request: What is the proposed funding source?** STP _____ CMAQ X

7. **Is this project included in a locally adopted plan or program?**

(This is a threshold requirement to compete in this funding process. Projects not shown in the applicants adopted local TIP or Transportation Element of its Comprehensive Plan are not eligible. Please provide a copy of the necessary documentation).

Yes X No _____

If yes, cite document, page(s) and adoption date: Tacoma has been planning for Tacoma Link Expansion, through the **City of Tacoma's Comprehensive Plan** and its elements:

- The **Downtown Element**, pages DT-3, DT-33, DT-34, DT-35, DT-99,
- The **Growth Strategy and Development Concept Element**, page GD-4 states "Support of the high-capacity transit system, including light rail and commuter rail, will be a top priority of the City"
- The **Transportation Element**, pages T-6, T-16, T-18, T-23, T-39, T-43, T-47, T-62
- **South Downtown Sub Area Plan** (pages 58 and 181)
- **North Downtown Sub-Area Plan** (in progress)
- **Draft Hilltop Subarea Plan** (April 2014) (pages 92-95)
- The **Tacoma Dome Area Plan**
- The **Neighborhood Element**
- Tacoma's **Economic Development Plan**, page 36
- The project was included in the **Sound Transit 2** voter-approved plan, Appendix A on page A-15

8. **Brief Project Description - Include a 8 1/2 x 11 detailed vicinity map and a cross-section detail of the project, if applicable (100 words maximum):**

Tacoma Link Expansion will extend light rail an additional 2.4 miles in downtown Tacoma. The project connects downtown to the Stadium and Hilltop Business Districts and Tacoma's "Medical Mile" which includes four major hospitals/medical centers. The project will increase ridership from 1 million to 3.5 million per year. Service is planned 17 hours per day, with 10 minute headways in the peak period. The project will save 10-15 minutes per trip over existing transit service. This \$6 million CMAQ request will buy 6 additional light rail vehicles. The request is scalable.

Confirm word count (91 words).

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Note: This CMAQ request can be scaled to fit within the Transit Cap of the Pierce Countywide funding competition (ie \$2m of CMAQ funding to buy 2 vehicles.) Per direction from PSRC, this project has not been scaled yet. For consistency purposes, this request for \$6m of grant funding to buy 6 additional light rail vehicles is the same as an FTA competitive request submitted in March.

9. Purpose and Need – Please provide a clear and concise narrative describing the project’s existing and proposed conditions. If available, provide pictures, technical data and/or other supporting studies or analysis (400 words maximum):

The purpose of the Tacoma Link Expansion is to improve mobility and access to the regional transit system for Tacoma residents, employees, and visitors. The project will serve traditionally underserved populations and neighborhoods in Tacoma while providing economic benefit to the City as a whole with a cost effective and environmentally sensitive investment. The Tacoma Link Expansion Stakeholder Group Final Report (Feb 2011) identified the following objectives for the Tacoma Link Expansion project:

- Meet the rapidly growing connectivity needs of the corridor and the region’s future residents.
- Link downtown with other growth centers in the City and encourage economic development
- Serve increasing commute trips to the downtown core via transit.
- Serve underserved communities and neighborhoods within the city of Tacoma
- Support the land use planning goals of the *South Downtown Subarea Plan*, the *Hilltop Subarea Plan* (April 2014 draft), the *North Downtown Subarea Plan* (in progress), and the other Growth and Employment centers.
- Reduce greenhouse gas emissions within the city of Tacoma.
- Support Goals & Objectives of Sound Transit’s Regional Transit Long Range Plan (2005)

How the Project meets the goals/objectives

- Tacoma Link Expansion is expected to save 10-15 minutes per trip over the existing service.
- The project serves the Downtown Tacoma Regional Growth Center.
- Transit trips increase from 1 million per year to 3.5 million per year;
- The number of connections to major bicycle and pedestrian facilities is high;
- Reliability will be at least 10% better than existing bus service
- Within a quarter mile of the alignment, the population is 40% minority, 25% low income and 30% of households have no vehicle.
- 14% of vacant land within the corridor could potentially be developed
- 33% of parcels within the corridor are “underutilized”
- Current zoning supports TOD
- High levels of direct connections to downtown and mixed use centers
- The corridor was ranked “high” for redevelopment potential
- The project is located in a PM2.5 nonattainment area. Tacoma Link Expansion can help improve air quality and reduce greenhouse gas emissions. Ridership is expected to increase by 2.5 million over the existing light rail system.

Confirm Word count (341 words)

PROJECT TRACKING AND FUNDING

NOTE: Sponsors may request funding for any single phase of the project, but requests for multiple phases is limited to preliminary engineering plus the subsequent phase necessary. For instance, requests for multiple phases are limited to the combination of (1) preliminary engineering and right-of-way or (2) preliminary engineering and construction (no right-of-way and construction requests will be considered).

Required Match: A minimum of 13.5% of local matching funds is required for PSRC’s FHWA funding. The following formula may be used to calculate the projects match:

To calculate the amount of matching funds, divide the federal funds requested by .865 and subtract the federal funds from this amount.

Example: Federal funds requested = \$100,000

$$\$100,000 / .865 = \$115,607$$

$$\$115,607 - \$100,000 = \$15,607 \text{ local match required}$$

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Please note: The combination of the requested PSRC funds plus all other funding must be adequate to fully fund that phase. Requests that do not result in a phase being fully funded cannot be approved into the regional TIP and therefore will be considered ineligible for PSRC funding.

10. Grant Funds Requested

Phase (e.g., Planning Study/Project, Preliminary Engineering, Right of Way, Construction, Other)	Estimated Obligation Date (year only)	Federal Funds Requested
Other (buy 6 vehicles)	2015	\$ 6,000,000 (request is scalable)

IMPORTANT: Please select 2015, 2016 or 2017 for estimated obligation year. Per PSRC's adopted project tracking policies, the deadline for obligating funds is June 1 of the selected obligation year. For more information, see: <http://www.psrc.org/transportation/tip/tracking>

11. Total Project Cost (\$138,772,759 in 2013\$)

Guidance: To be programmed into the state Transportation Improvement Program, funds for the phase being requested must be secure or reasonably expected to be secure. Unsecured funds will not be considered. Please use the website following link to assist in completing the following table:

www.psrc.org/assets/7911/Definitions_SecuredandUnsecuredFunding.pdf

A	B	C	D	Project Phase			
				E	F	G	H
Fund Source	Secured, reasonably Expected, or Unsecured?	Obligation Date (Yr Only)	\$ Amount by Funding Source	Planning	Prelim. Eng/ Design	Right-of-Way	Construction / Implementation
Local	Secured	2013	\$4,325,000	\$2,232,000	\$2,093,000		
Local	Reasonably Expected	2015 (vehicles)	\$42,526,777			\$837,073	\$41,689,704 (includes ST match for vehicles)
FTA 5339 AA	Secured	2012	\$1,461,000	\$1,461,000			
CMAQ	Secured	2013	\$3,400,000		\$3,400,000		
STP	Secured	2013	\$272,281		\$272,281		
FTA Small Start & other	Unsecured	2015 / 2016	\$78,860,040				\$78,860,040
CMAQ (ROW)	Unsecured	2015	\$1,927,662			\$1,927,662	
Grant Request (6 vehicles)	Unsecured	2015	\$6,000,000				\$6,000,000 (scalable)
TOTAL			\$138,772,759	\$3,693,000	\$5,765,281	\$2,764,735	\$126,549,743

Notes:

- Cost estimates based on September 2013 Technical Memo (Source: HDR). Cost estimates are in 2013\$.
- The \$6 million CMAQ request is scalable. The request can be scaled back to 2 vehicles for \$2m of CMAQ.

If unable to completely fill out Tables #10-12, please explain why:

11a. Provide additional information on any funds identified in the table above as reasonably expected to be secure. For example, identify the estimated approval date of funds for the project into the 6-year

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program; if pursuing a limited improvement district, bonding, or other local funding mechanism, when will that occur and what additional steps are required, etc. For more information on the definition of secured, reasonably expected, and unsecured funds, refer to:

<http://www.psrc.org/assets/11214/FinancialConstraintGuidance.pdf>

ST local match for the ROW and Vehicles is reasonably expected to be secured and is documented in the ST Financial Plan. The Financial Plan is updated annually to validate and confirm the adequacy of funding available to construct, operate and maintain transit programs approved by voters in 1996 (Sound Move) and 2008 (ST2). Source: Page 1

THE FOLLOWING RESPONSES WILL BE SCORED FOR PROJECT PRIORITIZATION.

PROJECT READINESS

12. **Cooperating Jurisdictions and Private Sector Support, if any: Provide names of all jurisdictions and private parties, contributing funds would be applied, and the percentage of total project funds provided. The percentage shall be expressed based on the costs of the requested phases under the current application. Contributing funds for prior phases shall not be considered. Applicants that have been previously awarded grant funding for their project CANNOT use the grantor as a cooperating jurisdiction.**

Letters of Commitment from all cooperating jurisdictions and private sector support must be attached to receive points: Yes _____ No X

Cooperating Jurisdiction	Phase	Dollar Amount of Participation	Percentage of Current Application
Total:			

- _____ 5 % or more 3 points
- _____ 3 to 4 % 2 points
- _____ 1 or 2 % 1 point

COMMITTEE SCORE _____
(Max. score of 3)

Private Sector Support	Phase	Dollar Amount of Participation	Percentage of Current Application
Total:			

- _____ 5 % or more of total project costs 3 points
- _____ 3 to 4 % of total project costs 2 points
- _____ 1 or 2 % of total project costs 1 point

COMMITTEE SCORE _____
(Max. score of 3)

13. **Has the jurisdiction secured/obligated state or federal funding for any of the projects below phases or has it completed a phase of the project using local funds only? (Please check all that apply)**

- Planning X 1 point P/E Design X 2 point
 - ROW _____ 2 point Construction _____ 2 point
- (ROW is required to receive points)

If any are checked, name project title and Funding Agency ID#: Tacoma Link Expansion (RTA-81)

Funding Source: FTA AA funding (\$1,461,000 for Alternatives Analysis), CMAQ (\$3.4m for the PE) and STP funds

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Except for the maintenance base expansion, no other ROW is expected to be needed for the Tacoma Link Expansion, as the project will be located in the city of Tacoma's roadway right of way. Sound Transit matching funds are immediately available. The project was included in the ST 2 voter-approved plan, along with dedicated revenues to finance the plans.

The Project is already in the STIP and Metropolitan Transportation Plan (MTP). The project is specifically identified in Transportation 2040 (Transportation 2040 ID number 5459). The project is already included in the Regional and State Transportation Improvement Program. See PSRC TIP ID number RTA-81.

Design Status (% complete): Choose an item.

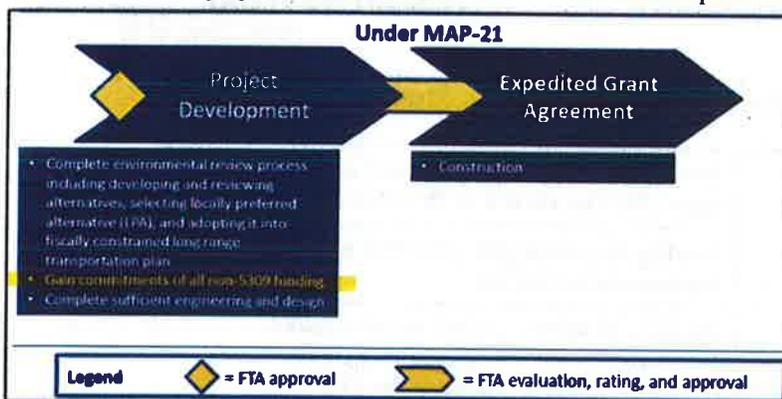
Project Phase	Status	Actual or Expected Completion Date
Preliminary Engineering	In Process	6/1/2015
Environmental Approval	In Process	10/1/2014
Right-of-Way Certification	N/A	1/29/2016

Note: This project would be administered by FTA. FTA administered projects do not need ROW certification from WSDOT. For FTA-administered projects, FTA allows obligation of ROW after NEPA is complete. Date shown is when design is at approximately 60%.

If construction funds are being requested, please describe any ROW needs for the project, including the number of parcels needed, whether property owners are expected to cooperate (and your agency's experience with condemnation and/or whether it is willing to go to condemnation if needed). N/A

17a. Will other secured or reasonably secured funding benefits be missed if the project remains unfunded in 2015, 2016 or 2017? Yes No (Include information about other funding benefits.)

Please explain: This project requires local partnership funding from non-ST local sources to complete the funding assumptions for the project, as contained in the ST 2 Plan. This request will contribute to that partnership funding need.



Before an FTA Small Starts grant can be secured to construct the project, all non-5309 funding (ie all non Small Start funding) must be secured.

FTA Small Starts Process http://www.fta.dot.gov/documents/Small_Starts_Development_Process.pdf

COMMITTEE SCORE _____
 (Max. score of 1)

18. Pierce County Regional Growth Centers Hierarchy and Connecting Corridors criteria: Is the project located in (1-3) or serving (4-6) any of the following? (Please check all that apply).

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1. Metropolitan Center (scores 1 point)	X	4. Corridor Supporting one (1) or more Regional Manufacturing/Industrial or Candidate Center (scores 2 point)	X
2. Regional or Candidate Growth Center Manufacturing/Industrial or Candidate Center (scores 2 points)	X	5. Corridor Supporting one (1) or more Centers (scores 1 point)	X
3. Countywide Center or Locally Identified Center (see approved PCRC Map) (scores 1 point)	X	6. Corridor Supporting two (2) or more Centers (scores 1 point)	X

Local city and town centers provide local job, service, cultural, and housing areas for their communities. They serve as focal points where people come together for a variety of activities, including shopping and recreation. These central places must be identified in local comprehensive plans, or should be advancing towards that goal. These areas are to become priority areas for future investments and growth at the local level.

The Tacoma Link Expansion alignment is located in Downtown Tacoma, a Regional Growth Center and Metropolitan Center. The project connects to the Stadium District and MLK/Hilltop District Local Centers. The project also has connections to the Port of Tacoma Manufacturing / Industrial Center. The expansion of the Tacoma Link Maintenance Base (located on E. 25th Street east of the Tacoma Dome Station) is part of the project scope.

The project is supported by the South Downtown Subarea Plan, North Downtown Subarea Plan and MLK / Hilltop Subarea Plan. Major Destinations, within a five-minute walk, from the existing system and Expansion:

- Multicare Tacoma General Hospital
- Multicare Mary Bridge Children’s Hospital
- Franciscan St Joseph’s Hospital
- Group Health
- Community Health Care Center
- The MLK Mixed Use Center
- Bates Technical College
- Peoples Park, Wright Park and Peoples Community Center and Pool
- Stadium High School
- Tacoma School of the Arts
- University of Washington - Tacoma
- Theaters such as the Rialto, Pantages, Temple, and Theater on the Square
- Tacoma Convention Center
- Tacoma Art Museum
- Washington State History Museum
- The International Museum of Glass
- Children’s Museum
- City, county, and state government offices, Union Depot Federal Court Building, the Old City Hall Historic District and the Union Station Warehouse Historic District
- The Tacoma Dome and Tacoma Dome Station
- LeMay – America’s Car Museum

(see attached maps in Appendix Maps for community connections)

COMMITTEE SCORE _____
(Max. score of 8)

19. **Is the project on a transit route? (Transit routes that “intersect” are okay only when the project improves the intersection)**

Guidance: Sound Transit route information is available at <http://www.soundtransit.org/Schedules>

Pierce Transit route information is available at <http://www.piercetransit.org/pierce-transit-routes/>

- Yes, full project length _____ X 2 points
- Yes, partial or intersection _____ 1 point
- No _____ 0 points

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If yes, provide route number(s)

ST Express Bus Routes 590 (Seattle-Tacoma) and 594 (Lakewood-Tacoma-Seattle) make stops in downtown Tacoma and connect with Tacoma Link at Commerce Street, Tacoma Convention Center Station, UW-Tacoma and at the Tacoma Dome Station. Route 590 provides service every 5 minutes (13 trips per hour) in the peak period.

The existing Tacoma Link light rail system (currently 1.6 miles long) is located in Downtown Tacoma, serving Tacoma Dome Station, S 25th Station, Union Station/S 19th Station, Convention Center / S 15th Station, Commerce St / S 11th and Theater District / S 9th. Trains run every 12 minutes (5 per hour) during the day.

Pierce Transit: There is no one bus route that follows the Tacoma Link Expansion alignment exactly. However, several Pierce Transit bus routes operate on parts of the alignment: Route 57 (Runs every 30 min); Route 2: (20 min peak and 30-40 min off peak); Route 28: (Runs every 30 min peak - hour off peak); Route 102 (runs morning in bound - evening out bound 5 trips a day hourly); Route 11 (Runs hourly); Route 13 and 16 (runs hourly)

COMMITTEE SCORE _____
(Max. score of 2)

20. What is the peak number of transit vehicles per hour within the project limits? (Transit routes that “intersect” are okay only when the project improves the intersection)

Guidance: Sound Transit route information is available at <http://www.soundtransit.org/Schedules>
Pierce Transit route information is available at <http://www.piercetransit.org/pierce-transit-routes/>

Peak number of transit vehicles per hour:

- Existing Tacoma Link Light Rail trains run every 12 minutes during the day (or 5 trains per hour). With the Tacoma Link Expansion project, light rail trains will run every 10 minutes (or 6 trains per hour).
- Routes 590 (Seattle-Tacoma) and 594 (Lakewood-Tacoma-Seattle) make stops in downtown Tacoma and connect with Tacoma Link at Commerce Street, Tacoma Convention Center Station, UW-Tacoma and at the Tacoma Dome Station. Route 590 provides service every 5 minutes (13 trips per hour) in the peak period.
- Existing Pierce Transit buses that travel along parts of the project alignment currently run between every 30 minutes during peak to every hour during off-peak between downtown Tacoma and along the MLK area and bus service for these routes varies from 4 hours to 14 hours per day.

4 or more transit vehicles 2 points
1 to 3 transit vehicles 1 point

COMMITTEE SCORE _____
(Max. score of 2)

21. Does this project specifically improve non-motorized access for trips to any of the following (check all that apply). Provide a map showing all checked items.

Transit locations (0-2 trips/day)		Schools	X	Household/Retail	X	Commercial Areas	X
Transit locations (0-5 trips/day)		Grocery Store	X	Parks and Recreation	X	Cultural Facilities (museums, libraries, etc.)	X
Transit locations (0-5+ trips/day)	X	Medical	X	Employment Centers	X	*Other	X

1 point each item

*Please describe: “Other” includes 13 economic development opportunities identified by the City of Tacoma.

The project vicinity currently has existing sidewalks. The new stations built for the Tacoma Link Expansion will include nonmotorized improvements such as providing a new shelter, including wind protection; seating; trash receptacle; lighting and informational signage and area map. Bicycles are welcome on Tacoma Link and each train car

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holds 4 bicycles. The Tacoma Link light rail vehicles have level boarding and riders just roll their bikes on the train.

The Tacoma Link Expansion Stations serve the following:

- Major medical facilities and employers: MultiCare Mary Bridge Children's Hospital & Health Center, MultiCare Tacoma General Hospital, Group Health and Community Health Care clinics, and St. Joseph's Hospital complex.
- Schools: Stadium High School, Bates Technical College, University of Washington-Tacoma; Tacoma School of the Arts; Evergreen State College-Tacoma
- Commercial Areas, Household/Retail, Grocery: The Hilltop Business District includes over 50 businesses, including some of Tacoma's oldest family owned and operated establishments. The Stadium Historic Business District includes more than 70 businesses. The Stadium Thriftway grocery store is adjacent to the alignment.
- Parks and Recreation: Peoples Park, Wright Park and Peoples Community Center and Pool are adjacent to Tacoma Link Expansion.
- Cultural Facilities: Tacoma Link serves Tacoma's Theater District, which includes the Tacoma Convention Center, Tacoma Art Museum, Rialto Theater, Theater on the Square, and the Pantages Theater. Tacoma Link also serves the Washington State History Museum, International Glass Museum and the Lemay – America's Car Museum. Transportation to concerts and other major events at the Tacoma Dome are supported by light rail. Sound Transit provides extended hours of operations for major events at the Tacoma Dome.

COMMITTEE SCORE _____
(Max. score of 12)

22. Does this project provide contiguous gap-closure to a previously funded transportation route?
(Gap closure projects may improve the facility to a standard equal to those sections on either end of the project. Gap closure project may provide a missing link of a facility that leads to a single connected facility. Gap closure projects are not limited to roadway sections and may include pedestrian paths, bicycle paths, trails, bridges, or any other transportation project which completes the system.)

Yes, Final Section	_____ 3 points
Yes, Next Section	<u> X </u> 2 point
No	_____ 0 points

If yes, please name adjacent segments; provide their funding source, and completion date:

The original Tacoma Link system (a 1.6 mile system funded with Sound Transit local funds) was the first segment. The Tacoma Link system opened for service in 2003. Ultimately, Sound Transit's Long Range Plan includes connecting Tacoma Link with the Central Link light rail line. However, **this Tacoma Link Expansion project is the next section of the Tacoma Link system as identified in ST 2 plan.**

The partnership between the city of Tacoma, Sound Transit and Pierce Transit to expand Tacoma Link has been intact since 2003 – when the original 1.6 mile Tacoma Link system began service.

- From 2003-2005, the early stages of ST2 planning generated ideas by cities and citizens for projects Expanding Tacoma Link.
- In 2005, Issue Papers were developed to examine Tacoma Link expansion. The Sound Transit Long-Range Plan was updated to include rail extension through Tacoma.
- In 2007, Tacoma Link Expansion was included on the ST 2 project list as a partnership project. "Funds, in the form of a capital contribution, are also programmed to provide for the expansion of the Tacoma Link light rail system if other public or private entities provide matching funds. Extensions that have been studied and are under consideration are north to the Tacoma General Hospital area or east to Fife."

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- In 2007, the City of Tacoma established a Streetcar Advisory Committee. The Committee examined feasibility, conceptual alignments and costs of establishing a city-wide streetcar system. The Committee considered historical streetcar routes, existing and future land uses and local/regional transit system.
- The City of Tacoma and Sound Transit created a Stakeholders Group in 2010 to develop the alternatives to be considered for the Tacoma Link Expansion.
- In February of 2014, the Sound Transit Board of Directors and Tacoma City Council identified an extension to the existing alignment along Stadium Way and Martin Luther King, Jr. Way to the Hilltop District in downtown Tacoma for the planned expansion of Tacoma Link.

COMMITTEE SCORE _____
(Max. score of 3)

23. Describe how the project has the potential to reduce emissions?

Guidance: The application process will walk project sponsors through specific questions designed to determine the potential emissions reductions of their project. For example, projects involving fuel or vehicle conversions will be asked to provide information on the total number of vehicles affected, the current fuel and vehicle usage conditions, as well as the conditions after the project is implemented. Projects expected to result in an increase in transit usage will be asked to provide information on the current transit ridership and transit routes affected, as well as the specifics of the project – i.e., how will the individual project encourage or promote new transit riders. Projects providing new or more frequent/expanded transit service would be expected to result in a higher level of new transit riders than projects providing improvements in existing transit travel times or enhanced amenities to existing service. Projects resulting in improvements in traffic flow will be asked to provide information on the current travel conditions, amount of idling, number of trucks using the route, etc. As mentioned above, the magnitude of the project and the timing of the anticipated benefits will play a role in the final score, and all projects will be evaluated against each other. Please explain:

Summary: Tacoma Link Expansion can reduce 850,000 to 1.8 million trips per year and 765,000 to 1.62 million VMT per year in a PM 2.5 nonattainment area.

- Tacoma Link light rail ridership is estimated to be about 1 million per year in 2035 without the expansion. With the expansion, Tacoma Link is estimated to have 3.5 million riders per year by 2035 – an increase of 2.5 million riders
- Tacoma Link Expansion would provide service approx. every 10 minutes between 6:30 AM and 8:00 PM and 20-24 minutes from 5:00 to 6:30 AM and 8:00 to 10:00 PM with service provided about 17 hours per day.
- If grant funding is secured, service is scheduled to begin in December 2020.

Sound Transit, with assistance from the Puget Sound Clean Air Agency, has developed a range of trip reduction estimates using methodologies below.

Trip Reduction Methodology #1: Use mode share information from PSRC's Regional Growth Centers Report so that only SOV trips are counted for potential trip reduction. The Tacoma Downtown Mode Share is 71% SOV. Source: [Regional Centers Monitoring Report](#), Ch 2, Pg 103

- The Tacoma Link Expansion will increase ridership by 2.5 million annually
- The SOV Work Trip Mode Share for Downtown Tacoma is 71%
- Calculation: 2.5 million additional riders x 71% SOV mode share = 1.775 million SOV trips reduced per year

Trip Reduction Methodology #2: Use the mode shift factor from the APTA "Quantifying and Reporting Transit Sustainability Metrics Report" ([APTA SUDS-CC-RP-003-12, June 2012](#))

- The Tacoma Link Expansion will increase ridership by 2.5 million annually
- Per APTA report, the mode shift factor for large urban areas is 47% and small areas 34%
- Calculation: 2.5 million additional riders x 47% mode shift = 1.175 million SOV trips reduced per year

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Summary of Tacoma Link Expansion Trip Reduction Estimates

Ridership Increase for Tacoma Link Expansion	SOV Work Trip Mode Share for Downtown Tacoma is 71%	APTA mode shift factor for a large service area is 47%	APTA mode shift factor for a small service area is 34%
2.5 million increase in ridership (annual)	2.5 million additional riders x 71% SOV mode share = 1.775 million SOV trips reduced per year	2.5 million additional riders x 47% mode shift = 1.175 million SOV trips reduced per year	2.5 million additional riders x 34% mode shift = 850,000 SOV trips reduced per year

Note: The APTA method is a national default and does not provide information on the local mode split.

VMT Reduction Calculation:

- Currently, the average trip length for Tacoma Link is .9 miles (per National Transit Database Report). Note: the current Tacoma Link light rail system is only 1.6 miles. With the Tacoma Link Expansion, the Tacoma Link light rail system will be a total of 4 miles long. A .9 mile average trip length should be conservative.
- Calculations: 850,000 - 1.8 million trips reduced x .9 mile average trip length is 765,000 - 1.62 million VMT reduced annually

High: A project will rate high if:

- It will substantially reduce emissions of greenhouse gases and other air pollutants, or will substantially reduce fine particulates from diesel exhaust; and
- The air quality benefits will occur by 2020.

Medium: A project will rate medium if:

- It will moderately reduce emissions of greenhouse gases and other air pollutants, or will moderately reduce fine particulates from diesel exhaust (for example, a project that reduces VMT by shortening a vehicle trip, rather than eliminating a vehicle trip); and
- The air quality benefits will occur by 2025.

Low: A project will rate low if:

- It results in a low amount of emissions reductions; and
- The air quality benefits will occur after 2025.

High = _____ 5 points
 Medium = _____ 3 points
 Low = _____ 2 points
 0 = _____ 0 points

COMMITTEE SCORE _____
 (Max. score of 5)

TRANSIT APPLICATIONS

64. Will this project reduce transit operating costs or improve efficiencies?

Yes 4 points
 No _____ 0 points

If yes, explain: The project will improve efficiencies in 1) travel time 2) reliability and 3) cost per boarding.

- **Travel time:** The project is expected to save 10-15 minutes per trip over the existing transit service.
- **Reliability:** Tacoma Link has an on-time performance of 99%. Fixed route bus service is 85% on time.
- **Cost per Boarding:** Current average weekday ridership is nearly 3,500 boardings, and on some days ridership surpassed 4,000 boardings. According to the 2014 Service Implementation Plan (SIP), the Cost per Boarding for Tacoma Link is significantly lower than all 26 of the ST Express bus routes, except one (the Seattle to Bellevue route).

COMMITTEE SCORE _____
 (Max. score of 4)

Project Title: Tacoma Link Expansion (Vehicles)

Agency: Sound Transit

65. Does this project provide direct benefit to transit riders? Yes.

If yes, explain:

- This project will more than double Tacoma's existing light rail system – from 1.6 miles to 4 miles.
- The project is expected to increase ridership from 1 million to 3.5 million per year.
- Light rail service is planned 17 hours per day, with 10 minute headways in the peak period
- The project is expected to save 10-15 minutes per trip over the existing transit service.
- The project serves Tacoma General Hospital, Mary Bridge Children's Hospital, Group Health Medical Center, Community Health Care Medical Center and St. Joseph's Hospital. There are 29,918 jobs (2010) served by the Tacoma Link Expansion with 44,552 jobs forecasted by 2030.
- The project serves over 16,200 students at University of Washington-Tacoma, Stadium High School, Bates Technical College and Evergreen State College-Tacoma.
- Within a quarter mile of the alignment, the population is 40% minority, 25% low income and 30% of households have no vehicle. Significantly improving transit in this area improves overall access to jobs, education and health care facilities.
- The project is a catalyst for transit-oriented economic development. Within a quarter mile of the alignment, 33% of parcels are underutilized and 14% are vacant. The City of Tacoma identified 13 economic development opportunities within a 5 minute walk of the corridor. The estimated value of the economic development is \$321 million.

BUILD / NO BUILD COMPARISON

	Existing System* (No Build)	With Tacoma Link Expansion ("Build" option)	Difference
Length of System	1.6 miles	4 miles of light rail	2.4 miles (double-tracked)
Annual Ridership	1 million	3.5 million	2.5 million more riders
Travel Time Benefit	No improvement	10-15 minutes faster	10-15 minutes faster
Reliability	@ 85% on time	99% on time	at least 10% better
Peak Service	every 30 minutes	every 10 minutes	Significantly more frequent
Environmental Justice Populations Served		40% minority; 25% low income 30% households with no vehicle	
Employment Served	29,918 existing jobs; 44,552 jobs by 2030	29,918 existing jobs; 44,552 jobs by 2030	
Economic Development		\$321 million	\$321 million
Students Served	3,662 (UW-Tacoma only)	Over 16,200 students	12,538 more students

*There is no bus route that follows the Tacoma Link Expansion route exactly. This info is for bus routes that serve MLK Way. 85% on time bus service is a performance target

COMMITTEE SCORE _____
(Max. score of 7)

66. Does the project improve transit users safety, security, or access to essential services? (Check all that apply) Guidance: Essential services may include hospitals or other emergency services. If yes, explain:

Access to Essential Services: Hospitals and Medical Centers Served By Tacoma Link Expansion:

- Multicare Tacoma General Hospital
- Multicare Mary Bridge Children's Hospital
- Franciscan St Joseph's Hospital
- Group Health
- Community Health Care Center

Safety and Security: The Tacoma Link Expansion system and facilities will be designed to withstand an Operating Design Earthquake (ODE) event of 150 years and a Maximum Design Earthquake of a 2500 year return rate. The Tacoma Link stations will incorporate safety features including platform lighting, passenger assistance intercom for emergency situations on the train, illuminated message signs, tactile warning at platform edge.

Project Title: Tacoma Link Expansion (Vehicles)
Agency: Sound Transit

Safety, Security and Critical Infrastructure Protection:

- The city of Tacoma’s Police and Fire Departments are involved throughout design to minimize impacts from the project on response time and accidents requiring fire and emergency medical vehicles. The city and Sound Transit have implemented systems for monitoring and improving communication and coordination between local law enforcement agencies.
- Regular safety drills conducted with personnel from the Sound Transit Police and city of Tacoma police and fire departments test the coordination of emergency responders.
- Sound Transit’s Safety and Security Management Plan, involves the continual development and reevaluation of safety and security procedures.
- Sound Transit manages its own Safety Division and 30-member transit police force.
- Sound Transit applies principles of Crime Prevention through Environmental Design (CPTED), uses specific hardware and equipment, and employs security personnel to reduce the potential for criminal activities.
- ST provides safety outreach through construction and operations, to English and non-English communities and to persons with disabilities. Sound Transit provides safety information in 12 languages. Sound Transit also has phone translation services that provide interpretation in 150 languages, 24 hours, seven days a week.

Yes, security improvements X 2 points
 Yes, safety improvements X 2 points
 Yes, access to essential services X 2 points
 No 0 points

COMMITTEE SCORE _____
 (Max. score of 6)

67. Describe how the project maintains or improves safe and convenient access to, and/or, within the regional or local center.

Guidance: Applicants should demonstrate the magnitude of the benefits provided by the project and describe how it might improve system continuity and access to centers.

Tacoma Link Expansion serves downtown Tacoma (a regional growth center), Stadium District, the Medical Mile and Hilltop District. Major Destinations, within a five-minute walk, from the existing system and Expansion:

- Multicare Tacoma General Hospital
- Multicare Mary Bridge Children’s Hospital
- Franciscan St Joseph’s Hospital
- Group Health
- Community Health Care Center
- The MLK Mixed Use Center
- Bates Technical College
- Peoples Park, Wright Park and Peoples Community Center and Pool
- Stadium High School
- Tacoma School of the Arts
- University of Washington - Tacoma
- Theaters such as the Rialto, Pantages, Temple, and Theater on the Square
- Tacoma Convention Center
- Tacoma Art Museum
- Washington State History Museum
- The International Museum of Glass
- Children’s Museum
- City, county, and state government offices, Union Depot Federal Court Building, the Old City Hall Historic District and the Union Station Warehouse Historic District
- The Tacoma Dome and Tacoma Dome Station
- LeMay – America’s Car Museum

Project Title: Tacoma Link Expansion (Vehicles)
Agency: Sound Transit

This project will more than double Tacoma's existing light rail system – from 1.6 miles to 4 miles (a 2.4 mile expansion). The project is expected to increase ridership from 1 million to 3.5 million per year.

Tacoma Link Expansion will provide service every 10 minutes between 6:30 AM and 8:00 PM and 20 to 24 minutes from 5:00 to 6:30 AM and 8:00 to 10:00 PM with service provided about 17 hours per day.
 The project is expected to save 10-15 minutes per trip over the existing transit service.

Access to Jobs: The project serves Tacoma General Hospital, Mary Bridge Children’s Hospital, Group Health Medical Center, Community Health Care Medical Center and St. Joseph’s Hospital. There are 29,918 jobs (2010) served by the Tacoma Link Expansion with 44,552 jobs forecasted by 2030.

Access to Education: The project serves over 16,200 students at University of Washington-Tacoma, Stadium High School, Bates Technical College and Evergreen State College-Tacoma.

Tacoma Link Expansion helps the center meet its development goals. The Tacoma Link Expansion Stakeholder Group Final Report (Feb 2011) identified the following objectives for the Tacoma Link Expansion project:

- Meet the rapidly growing connectivity needs of the corridor and the region’s future residents.
- Link downtown with other growth centers in the City and encourage economic development
- Serve increasing commute trips to the downtown core via transit.
- Serve underserved communities and neighborhoods within the city of Tacoma
- Support the land use planning goals of the *South Downtown Subarea Plan*, the *Hilltop Subarea Plan* (April 2014 draft), the *North Downtown Subarea Plan* (in progress), and the other Growth and Employment centers.
- Reduce greenhouse gas emissions within the city of Tacoma.
- Support Goals & Objectives of Sound Transit’s Regional Transit Long Range Plan (2005)

The following goals and criteria were used to evaluate the Tacoma Link Expansion corridor:

Goal	Criteria for Meeting the Goal	How the Project meets the Goal
Goal 1: Improve Mobility & Access for Residents and Visitors	-Travel time to Tacoma Dome (savings over existing transit) -Travel time to Downtown Tacoma (savings over existing transit) -Number of regional centers served	- Tacoma Link Expansion is expected to save 10-15 minutes per trip over the existing service. - The project serves the Downtown Tacoma Regional Growth Center.
Goal 2: Increase Transit Ridership	-Amount of riders likely to be attracted -Number of connections to major bicycle and pedestrian facilities -Travel time reliability (% improvement compared to existing bus reliability)	- Transit trips increase from 1 million per year to 3.5 million per year; - The number of connections to major bicycle and pedestrian facilities is high; - Reliability will be at least 10% better than existing bus service
Goal 3: Serve Underserved Neighborhoods and Communities	-Serve areas that have historically received proportionally fewer infrastructure investments -Serve areas that are ethnically and economically diverse	- Within a quarter mile of the alignment, the population is 40% minority, 25% low income and 30% of households have no vehicle.
Goal 4: Use Transit to Spur Economic Development and Other Types of Investments	-Amount of vacant land that could potentially be developed -Ratio of building value to land value to determine “underutilized” parcels** (% of parcels within corridor where ratio is below 150%) -Presence of TOD supportive zoning -% of parcels zoned for commercial -Directness of connection to downtown and mixed use centers -Assessed value of land	- 14% of vacant land within the corridor could potentially be developed - 33% of parcels within the corridor are “underutilized” - Current zoning supports TOD - 14% of parcels are zoned for commercial within the corridor - High levels of direct connections to downtown and mixed use centers - The corridor was ranked “high” for redevelopment potential

Project Title: Tacoma Link Expansion (Vehicles)

Agency: Sound Transit

	-Redevelopment potential	
Goal 5: Ensure that the project is environmentally sensitive and sustainable	-Consistency with Sound Transit's Sustainability Plan	The project is located in a PM2.5 nonattainment area. Tacoma Link Expansion can help improve air quality and reduce greenhouse gas emissions. Ridership is expected to increase by 2.5 million over the existing light rail system.

Tacoma Link Expansion as a Catalyst for Development and Investment

Economic development was a primary criterion for identifying the Tacoma Link Expansion corridor. Tacoma's Economic Development Strategy lists the existing Tacoma Link system as a key asset within downtown Tacoma. In the Tacoma Link Expansion Corridor Evaluation, economic development potential was measured in two ways: connection to economic development opportunities and number of likely re-developable parcels adjacent to the alignment. The City of Tacoma has identified major economic development opportunities within the five minute walk distance (a quarter mile) of the alignment. Within a quarter mile of the Tacoma Link Expansion alignment, 33% of parcels are underutilized and 14% are vacant. The City of Tacoma identified 13 specific economic development opportunities within a 5 minute walk of the Tacoma Link expansion. The economic development of these sites totals \$321m.

**Economic Development Opportunities Based on the 2.4 mile Tacoma Link Expansion
Estimated Value of \$321 million**

	Project Name	Description of Project (list as of 4/18/14)	Projected Dev Cost
1	6 th & St. Helens Property	1.6 th & St. Helens Property (300 units)	\$60m
2	Infill Mixed-Use Development on Parking Lot at Stadium Thriftway	~1.11 acres - Infill Mixed-Use Development on Parking Lot at Stadium Thriftway (150 units)	\$35m
3	11 th & MLK WA State Dept Commerce Property	11 th & MLK WA State Dept Commerce Property (Mixed-Use & 100 units)	\$30m
4	James Walton Mixed-Income & Mixed-Use Dev	James Walton Mixed-Income & Mixed-Use Dev (50 units)	\$20m
5	Mc Menamin's Hotel & Restaurant (Elks Lodge)	A 1915 building on the National Register of Historic Places that McMenamins' will develop to include 45 guestrooms.	\$18m
6	Grand on Broadway	143 residential units and 3,000 square feet of retail space on currently vacant 0.7 acre site	\$35m
7	Old City Hall	Old City Hall Conversion to Residential Use (80 units) (Change of Use requires substantial upgrades)	\$24m
8	Stadium Thriftway Adaptive Reuse	Stadium Thriftway Adaptive Reuse (conversion from auto to retail uses)	\$5m
9	Multicare Tacoma General Hospital Expansion	The 6-story, 105,929-square-foot Rainier Pavilion is part of a \$192m project to expand services for women, newborns and children at Tacoma General Hospital & Mary Bridge Children's Hospital.	N/A – Recent expansions completed
10	Former Rite Aid Property	Former Rite Aid Property (Rite Aide still paying lease for 7 more years – possibility of a charter school lease or purchase)	\$2m
11	Franciscan St Joseph's Hospital Expansion	Renovation that centralized and expanded outpatient services, and freed up space within the existing hospital building to allow for improvements to inpatient services.	N/A –major renovations completed
12	Vahalla Hall on MLK (Adaptive Reuse of Bldg)	Vahalla Hall on MLK (Adaptive Reuse of Bldg) (8-12 units plus ground floor commercial)	\$2m
13	Allen AME Mixed-Use Dev	Allen AME Mixed-Use Dev (redevelop could include up to 400 units and ground floor retail)	\$90m (phased)
TOTAL PROJECTED COSTS			\$321m

Source: City of Tacoma Community and Economic Development Department

Project Title: Tacoma Link Expansion (Vehicles)

Agency: Sound Transit

Tacoma Link Expansion directly connects with multiple modes, providing transportation choices

- **Light Rail:** Tacoma Link light rail service is 7 days a week, with 10 minute peak headways.
- **Local Bus Connections:** Tacoma Link stations include connections to Pierce Transit. The Commerce Street Transit Center (located between S 9th and 11th Streets) is served by light rail and provides a point of connection for Pierce Transit and ST Express bus routes serving downtown Tacoma.
- **ST Express Bus Routes 590 (Seattle-Tacoma) and 594 (Lakewood-Tacoma-Seattle)** make stops in downtown Tacoma and connect with Tacoma Link at Commerce Street, Tacoma Convention Center Station, UW-Tacoma and at the Tacoma Dome Station.
- **Pedestrian:** Stations will include shelters with wind/rain protection, seating, trash receptacles, lighting and informational signage, including area map. The project connects to the Thea Foss Waterway / Esplanade, Spanish Steps and the Prairie Line Trail and other local and regional pedestrian and bicycle connections.
- **Bicycle:** New Tacoma Link light rail vehicles to be procured for the expansion will hold 4 bicycles per train car. Within the project limits, Tacoma's Mobility Master Plan identifies Broadway, Market, J St, N Yakima Ave and Court D as bicycle boulevards and lists St. Helens for a bike lane. The Mobility Master Plan also identifies an off-street trail (the "Bayside Trails") to the east of Stadium Way in this area. Stadium Way and N 1st Street have bike lanes.
- **Park & Ride:** Tacoma Link includes connections to the Tacoma Dome Station, which has 2,283 parking stalls. Multimodal connections at the Tacoma Dome Station include:
 - 14 local and express bus routes serve the Tacoma Dome. Bus service at the Tacoma Dome Station includes seven ST Express bus routes, including express service to Sea-Tac Airport and the University of Washington in Seattle; seven local Pierce Transit bus routes serving Tacoma; Intercity Transit bus routes to the city of Olympia; Greyhound and Northwestern Trailways inter-city bus service across the Pacific Northwest.
 - Sounder Commuter Rail: Currently 20 commuter rail trains operate each weekday, increasing to 26 trains by 2017.
 - Amtrak Cascades: Currently eight (8) Amtrak Cascades trains serve Tacoma each weekday, increasing to ten (10) trains by 2017.
 - Amtrak Coast Starlight: Long distance trains (Seattle to LA) serve the Tacoma Station daily.

High: A high scoring project would demonstrate the following characteristics:

- Provides clear benefit to a center or centers by expanding the person and goods carrying capacity of routes leading towards the center(s).
- Demonstrates that it helps a center(s) meet its development goals (and can reference these goals).
- Improves access to the center(s) for multiple modes, including nonmotorized and transit.

Medium: A medium scoring project would demonstrate the following characteristics:

- Primarily benefits the development along the corridor rather than a center.
- Benefits to a center's development goals are not described in a comprehensive plan.
- Improves access to a center, but only for a few modes.

Low: A low scoring project would demonstrate the following characteristics:

- Has very limited benefits to a center, with the benefits not described in a comprehensive plan.
- Limited access improvements for only one mode.

COMMITTEE SCORE _____
(Max. score of 4)

- 68. Describe the user groups that will benefit from the project, including commuters, residents, commercial users, and those groups identified in the President's Order for Environmental Justice and/or areas experiencing high levels of unemployment or chronic underemployment.**

Guidance: Applicants should demonstrate the magnitude of the benefits provided by the project and describe how it might improve system continuity and access to centers.

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Agency: Sound Transit

Tacoma Link Expansion benefits many user groups:

- Residents --light rail service will be provided up to 17 hours per day, not just commute hours.
- Commuters will benefit from light rail service every 10 minutes (6:30AM - 8PM). Tacoma Link Expansion serves downtown and four major hospitals/medical facilities with about 30,000 employees.
- Students -- Tacoma Link serves over 16,000 students at University of Washington-Tacoma, Bates Technical College, Stadium High School and Evergreen State College-Tacoma.
- Shoppers - shoppers will benefit from the service to downtown Tacoma, the Stadium and Hilltop shopping districts.
- Local and Express bus riders -- bus riders will benefit from the ST Express, Pierce Transit and Intercity Transit. Each light rail station has connections to buses.
- Pedestrians and Bicyclists – Tacoma Link connects with multiple bicycle boulevards, the Prairie Line Trail, Thea Foss Esplanade. Bicycles are welcome on Tacoma Link. Each train car holds up to 4 bicycles.
- Arts and Culture– Tacoma Link serves Tacoma’s Theater District, which includes the Tacoma Convention Center, Tacoma Art Museum, Rialto Theater, Theater on the Square, and the Pantages Theater. Tacoma Link also serves the Washington State History Museum, International Glass Museum and the Lemay – America’s Car Museum.
- Transportation to concerts and other major events at the Tacoma Dome are supported by light rail. Major events at the Tacoma Dome can attract 23,000 patrons and hundreds of staff. Sound Transit provides extended hours of operations for major events at the Tacoma Dome.

Environmental Justice: One of the objectives of the Tacoma Link Expansion is to “serve underserved communities.” Within one-quarter mile of the alignment, the population is 40% minority, 25% low income and 30% of households have no vehicle. Significantly improving transit in this area improves overall access to jobs and health care facilities.

Access to Education: Several large schools are served by Tacoma Link Expansion:

- Stadium High School (1,641 students; 80 faculty)
- Bates Technical College (10,545 students)
- University of Washington-Tacoma (4,000 students and more than 350 faculty/staff);
- Tacoma School of the Arts (500 students)
- Evergreen State College-Tacoma

Adjacent to dense, mixed-use areas that are likely to generate significant use of the project.

The area around the Tacoma Link Expansion project is zoned “Downtown Commercial Core” and “Downtown Residential.” Along the alignment outside of the downtown core, it is zoned “Neighborhood Commercial Mixed-Use District” and “Residential Commercial Mixed-Use District.” Neighborhood Commercial Mixed-Use District zoning includes a Height Bonus program that provides a mechanism to allow for additional height (up to 85’) if the development provides affordable housing, pedestrian oriented environment, TOD, sustainability and/or quality of life improvements. The minimum density is 30 units/acre, or 40 units/acre on designated pedestrian streets. MLK Jr. Way is a designated core pedestrian street.

Tacoma’s “Mixed-Use Centers Complete Streets Design Guidelines” provides specific guidance for adopting Complete Street policies and practices for mixed-use Centers within the city of Tacoma (including the MLK Mixed Use Center). Tacoma defines a “Complete Street” as a street that safely and comfortably accommodates all users and travel modes, fosters livability, neighborhood identity and character and incorporates features that reduce environmental impacts.

The Tacoma City Council passed Resolution No. 37830 - Local Revitalization Financing Program - to encourage development with residential Multi Family Housing Tax Incentives. Tacoma Link is extremely important to the overall objective of achieving and maintaining density and this project is part of the City's strategy for economic development.

High: A high scoring project would demonstrate the following characteristics:

- Serves multiple user groups, including those without full-time access to cars, those identified in the President’s Order for Environmental Justice, and/or areas experiencing high levels of unemployment or chronic underemployment.
- Adjacent to dense, mixed-use areas that are likely to generate significant use of the project.

Medium: A medium scoring project would demonstrate the following characteristics:

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Agency: Sound Transit

- Serves a moderate number and variety of users.
- Adjacent land uses are low-density, and therefore, likely to generate limited use.

Low: A low scoring project would demonstrate the following characteristics:

- Serves a limited number and variety of users.

COMMITTEE SCORE _____
(Max. score of 4)

69. Describe how the project improves intermodal connections (e.g., between autos, ferries, commuter rail, high capacity transit, buses, carpools, bicycles, etc.) or facilitates connections between separate operators of a single mode (e.g., two transit operators).

Guidance: Applicants should demonstrate the magnitude of the benefits provided by the project and describe how it might improve system continuity and access to centers.

Tacoma Link Expansion improves connectivity between multiple modes:

- **Local/Express Bus:** Tacoma Link Expansion stations include connections to PT and ST Express buses.
- **Light Rail:** Tacoma Link Expansion connects with the existing Tacoma Link system (Theater District to Tacoma Dome).
- **Pedestrian:** The project will include amenities for pedestrians including station shelters, seating, trash receptacle, lighting, variable message sign, and informational signage / area map.
- **Bicycle:** New Tacoma Link Expansion vehicles can hold 4 bikes per train car
- **Park & Ride:** Tacoma Link includes connections to the Tacoma Dome Station, which has 2,283 parking stalls. As mentioned earlier, multimodal connections at the Tacoma Dome Station include: Amtrak Cascades (Portland-Tacoma-Seattle-Vancouver); Amtrak Coast Starlight (Seattle to LA); Sounder commuter rail (Lakewood-Tacoma-Seattle-Everett); Tacoma Link light rail; Pierce Transit, Intercity Transit and Sound Transit Buses; Greyhound and Northwestern Trailways inter-city buses.

Sound Transit and Pierce Transit service is coordinated. (Pierce Transit operates the ST Express bus routes serving Pierce County). The Transit Integration Group (TIG) works on coordination issues such as ease of use for customers, policy coordination/cooperation and coordinated system performance. Pierce Transit and Sound Transit work closely for carrying out rider communications (e.g., rider alert messages, schedule publication) associated with the service changes. One to two weeks prior to a major service change, staff generally “street-team” on-location to notify customers face-to-face about upcoming changes. Immediately after service changes are implemented, Sound Transit staff works closely with Pierce Transit and other operating partners to resolve any unanticipated operational issues. In addition, street teams continue into the first week of the service change to assist customers in locating their service.

Tacoma Link Expansion makes improvements to the corridor in Logical Segments: The first segment of Tacoma Link light rail (1.6 miles) opened in 2003. This Tacoma Link Expansion project is the next section of the Tacoma Link system as identified in ST 2 plan. The Expansion will extend light rail another 2.4 miles (for a total length of approximately 4 miles) and will more than double Tacoma's existing light rail system. This project will ultimately provide more options for people traveling in and around downtown Tacoma and surrounding destinations.

Tacoma Link Expansion provides a new Intermodal Connection providing systemwide performance benefits.

- The project is expected to increase ridership from 1 million to 3.5 million per year.
- Light rail service is planned 17 hours per day, with 10 minute headways in the peak period.
- The project is expected to save 10-15 minutes per trip over the existing transit service.

The project addresses barriers in the corridor, creating greater efficiency and reliability.

Within a quarter mile of the alignment, 30% of households have no vehicle, which is a major barrier to employment. Tacoma Link Expansion significantly improves mobility and overall access to jobs, education and health care facilities.

Steep hills are also a barrier and limit accessibility in and out of downtown Tacoma. The street grades between downtown Tacoma and the Hilltop District range from 10% to 15%. The steep hills are a barrier for walking and biking. The Tacoma Link Expansion route is engineered for the maximum grade of 8%. Tacoma Link Expansion stations are planned to be located in street locations with maximum 2% grade.

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Agency: Sound Transit

Efficiency and Reliability: Current Tacoma Link service is 99% on time and the Tacoma Link Expansion is expected to offer similar reliability. The cost per boarding for Tacoma Link is more efficient than almost all ST Express bus routes. Tacoma Link is powered by electricity - saving on fuel costs. Sound Transit light rail services operate on clean electricity sourced from more than 85% non-carbon generating sources.

Long Term Solution to meet travel demand: Tacoma Link Expansion is a long term strategy to improve accessibility to jobs and essential facilities such as hospitals and health care facilities. The Tacoma Link Expansion project is designed for growth and ridership levels beyond 2035.

Tacoma Link Expansion is also designed to be a resilient system. The Tacoma Link Expansion system and facilities will be designed to withstand an Operating Design Earthquake (ODE) event of 150 years and a Maximum Design Earthquake of a 2500 year return rate.

High: A high scoring project would demonstrate the following characteristics:

- Improves a corridor in logical segments, preventing the creation of missing links or gaps, thereby improving access to a center or centers.
- Creates a new intermodal connection that provides significant system-wide performance benefits.
- Address critical gaps or barriers in the development of a corridor, creating greater efficiency or reliability in accessing a center.
- Removes a bottleneck that improves the overall system performance and creates improved access to a center.
- Provides a long-term solution for meeting projected travel demand for people and/or goods to a center, considering environmental issues, land-use strategies, transportation efficiency, and health impacts.

Medium: A medium scoring project would demonstrate the following characteristics:

- Improves a corridor in logical segments, but provides limited improvement in accessing a center.
- Creates a new intermodal connection that provides moderate system-wide performance benefits.
- Addresses important, but not critical, gaps or barriers in the development of a corridor and has limited improvements in efficiency or reliability in accessing a center.
- Provides limited relief to a bottleneck with limited improvement to overall system performance.
- Provides a short-term solution for meeting projected travel demand for people and/or goods, considering environmental issues, land-use strategies, transportation efficiency, and health impacts.

Low: A low scoring project would demonstrate the following characteristics:

- Does not improve a corridor in logical segments and does not provide for improved access to a center.
- Does not create new intermodal connections.
- Addresses marginal gaps or barriers in the development of a corridor and has very limited improvements in efficiency or reliability in accessing a center.
- Has no perceptible improvement to a bottleneck or to overall system performance.
- Does not address long-term projected travel demand.
- Serves areas outside the Urban Growth Area.

COMMITTEE SCORE _____
(Max. score of 4)

70. If applicable, describe how the project provides an improvement in travel time and/or reliability for transit users traveling to and/or within centers.

Improvement in Travel Time and Reliability

The Tacoma Link Expansion project is anticipated to increase ridership from 1 million per year to 3.5 million per year by 2035. Travel time savings are expected to be 10-15 minutes per trip over existing bus service.

Currently, there is no existing bus service provided along the same exact corridor that will be served by Tacoma Link Expansion. However, there are three local Pierce Transit bus routes that serve MLK Way between Division and S. 19th. Existing buses run about every hour between downtown and the MLK area and bus service for these routes varies from

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4 hours to 14 hours per day. Buses can be delayed by traffic congestion, traffic accidents, road conditions, etc which can affect the level of service. Current Tacoma Link service is 99.8% on time and the Tacoma Link Expansion is expected to offer similar reliability.

Service Levels	Tacoma Link Expansion	Current Bus Service*
Reliability / On-Time Performance	99%	85% **
Peak Headways	every 10 minutes	every 30 minutes
Hours of Operation	17 hours per day	4 hours to 14 hours per day

*There is no bus route that follows the Tacoma Link Expansion route exactly. This info is for bus routes that serve MLK Way. 85% on time bus service is a performance target

See previous responses on how the project improves the corridor in logical segments; provides systemwide performance benefits; addresses barriers in the corridor and creates greater efficiency and reliability.

High: A high scoring project would demonstrate the following characteristics:

- Improves a corridor in logical segments, preventing the creation of missing links or gaps, thereby improving access to a center or centers.
- Creates a new intermodal connection that provides significant system-wide performance benefits.
- Address critical gaps or barriers in the development of a corridor, creating greater efficiency or reliability in accessing a center.
- Removes a bottleneck that improves the overall system performance and creates improved access to a center.
- Provides a long-term solution for meeting projected travel demand for people and/or goods to a center, considering environmental issues, land-use strategies, transportation efficiency, and health impacts.

Medium: A medium scoring project would demonstrate the following characteristics:

- Improves a corridor in logical segments, but provides limited improvement in accessing a center.
- Creates a new intermodal connection that provides moderate system-wide performance benefits.
- Addresses important, but not critical, gaps or barriers in the development of a corridor and has limited improvements in efficiency or reliability in accessing a center.
- Provides limited relief to a bottleneck with limited improvement to overall system performance.
- Provides a short-term solution for meeting projected travel demand for people and/or goods, considering environmental issues, land-use strategies, transportation efficiency, and health impacts.

Low: A low scoring project would demonstrate the following characteristics:

- Does not improve a corridor in logical segments and does not provide for improved access to a center.
- Does not create new intermodal connections.
- Addresses marginal gaps or barriers in the development of a corridor and has very limited improvements in efficiency or reliability in accessing a center.
- Has no perceptible improvement to a bottleneck or to overall system performance.
- Does not address long-term projected travel demand.
- Serves areas outside the Urban Growth Area.

COMMITTEE SCORE _____
 (Max. score of 4)

71. How does the project maximize the efficiency of the corridor? Describe the problem and how this project will remedy it.

Guidance: Applicants should demonstrate the magnitude of the benefits provided by the project and describe how it might improve system continuity and access to centers.

Project Title: Tacoma Link Expansion (Vehicles)

Agency: Sound Transit

The purpose of the Tacoma Link Expansion is to improve mobility and access to the regional transit system for Tacoma residents, employees, and visitors. The project will serve traditionally underserved populations and neighborhoods in Tacoma while providing economic benefit to the City as a whole with a cost effective and environmentally sensitive investment.

Maximize Efficiency of the Corridor: The Tacoma Link Expansion project is a major improvement in transit service. On time performance, peak headways, and hours of operations are all significantly improved over existing service. The project is also expected to spur economic development in the corridor.

Tacoma Link Expansion serviced is planned to be every 10 minutes between 6:30 AM and 8:00 PM and 20 to 24 minutes from 5:00 to 6:30 AM and 8:00 to 10:00 PM with service provided about 17 hours per day.

- Transit trips increase from 1 million per year to 3.5 million per year;
- Tacoma Link Expansion is expected to save 10-15 minutes per trip over the existing service.
- Reliability will be at least 10% better than existing bus service
- Within a quarter mile of the alignment, the population is 40% minority, 25% low income and 30% of households have no vehicle.
- The corridor was ranked “high” for redevelopment potential. Over \$320 million of economic development has been identified in the corridor. Current zoning supports TOD
- 14% of vacant land within the corridor could potentially be developed
- 33% of parcels within the corridor are “underutilized”
- High levels of direct connections to downtown and mixed use centers

Tacoma Link Expansion is a long term strategy to improve accessibility to jobs, education and health care facilities. Tacoma Link Expansion facilities are designed for growth and ridership levels beyond 2035. Tacoma Link Expansion project provides system continuity by expanding the existing Tacoma Link system. The Expansion will add 2.4 miles of additional light rail in Tacoma.

See previous responses on how the project improves the corridor in logical segments; provides systemwide performance benefits; addresses barriers in the corridor and creates greater efficiency and reliability.

High: A high scoring project would demonstrate the following characteristics:

- Improves a corridor in logical segments, preventing the creation of missing links or gaps, thereby improving access to a center or centers.
- Creates a new intermodal connection that provides significant system-wide performance benefits.
- Address critical gaps or barriers in the development of a corridor, creating greater efficiency or reliability in accessing a center.
- Removes a bottleneck that improves the overall system performance and creates improved access to a center.
- Provides a long-term solution for meeting projected travel demand for people and/or goods to a center, considering environmental issues, land-use strategies, transportation efficiency, and health impacts.

Medium: A medium scoring project would demonstrate the following characteristics:

- Improves a corridor in logical segments, but provides limited improvement in accessing a center.
- Creates a new intermodal connection that provides moderate system-wide performance benefits.
- Addresses important, but not critical, gaps or barriers in the development of a corridor and has limited improvements in efficiency or reliability in accessing a center.
- Provides limited relief to a bottleneck with limited improvement to overall system performance.
- Provides a short-term solution for meeting projected travel demand for people and/or goods, considering environmental issues, land-use strategies, transportation efficiency, and health impacts.

Low: A low scoring project would demonstrate the following characteristics:

- Does not improve a corridor in logical segments and does not provide for improved access to a center.

Project Title: Tacoma Link Expansion (Vehicles)

Agency: Sound Transit

- Does not create new intermodal connections.
- Addresses marginal gaps or barriers in the development of a corridor and has very limited improvements in efficiency or reliability in accessing a center.
- Has no perceptible improvement to a bottleneck or to overall system performance.
- Does not address long-term projected travel demand.
- Serves areas outside the Urban Growth Area.

COMMITTEE SCORE _____

(Max. score of 4)

72. Will this project extend the useful life of an asset or will it replace an asset that is beyond the useful life?

The entire project will extend the useful life of an asset or replace an asset beyond its useful life. (3 points)

Part of the project will extend the useful life of an asset or replace an asset beyond its useful life. (2 points)

No, this project will not extend the useful life of an asset or replace an asset beyond its useful life. (0 points)

Explain:

The Tacoma Link Expansion is mainly an improvement to the regional transportation system. However, there are some elements of the project, especially work on the existing Operations and Maintenance Facility, that will extend the useful life of an asset.

- The existing Tacoma Link Operations and Maintenance (O&M) Facility will be rehabilitated and expanded as part of this project.
- Storage facilities for spare parts will be replaced. Existing light rail vehicles will receive mid-life overhaul.
- An Asset Management Plan covers the management and maintenance of all Sound Transit assets. The Sound Transit financial plan assumes that all the Tacoma Link project assets will be replaced at the end of their useful life. The financial plan already incorporates asset replacement costs. Assets are appropriately capitalized up front and always maintained to maximize safety and useful life. An Enterprise Asset Management System is used for the current Tacoma Link system.

COMMITTEE SCORE _____

(Max. score of 3)

TOTAL SCORE FOR ALL SECTIONS _____

JURISDICTION APPROVAL.

I, the undersigned, affirm to the best of my knowledge:

LW (initial) The project information contained within this application is accurate.

LW (initial) The project is programmed and matching funds are available.

LW (initial) Agency acknowledges it must apply for listing in Regional TIP before June 1 of the selected obligation year.

BY: 
Approving Authority

TITLE: Grant Director Manager

DATE: April 30 2014

Growth Strategy and Development Concept Element – City of Tacoma Comprehensive Plan

be designated as a Regional Manufacturing/Industrial Center, and as such will become a priority location for future manufacturing and industrial development. Other industrial areas will continue to be viable and will undergo some expansion and redevelopment. The rate of employment growth for manufacturing will be less than for other sectors of the economy, such as retail, service industries, government, transportation, trade and education.

Transportation

The automobile will continue to be the primary means of transportation for most people. However, other methods of transportation including transit, bicycling, and walking will be more prevalent. The movement of people and goods rather than vehicles will be emphasized in determining transportation improvements. The past dispersal of housing and employment will continue to impact travel patterns that will affect transit ridership and the ability to resolve traffic congestion in some areas. Increases in the use of public transportation will occur for daily travel between home and work as well as for travel between activity centers within the city, to other communities in Pierce County and to other cities in the region. Support of the high-capacity transit system, including light rail and commuter rail, will be a top priority of the City. Energy concerns, higher transportation-related costs, transportation demand management controls and concerns for improved air quality will curtail the use of the private automobile. New transportation facilities will be compatible with planned land use and will be developed concurrently with new growth or within six years. Since transportation problems do not respect jurisdictional boundaries, more intergovernmental coordination as well as public-private cooperation will be needed to address transportation issues in a consistent, integrated and cost-effective manner.

Open Space/Shorelines

The City's more than 45 miles of shorelines and its many natural features are essential to defining the city's character. As development increases and certain areas within the city become denser, accessible open space will be of even greater importance. Demand for open

space and land for recreational needs, such as parks and other outdoor recreational areas, will continue to increase, as will the need for urban public spaces such as plazas and courtyards. Protection and preservation of shorelines and other natural features of the environment will be necessary to maintain the present quality of life and to protect the function and values of critical areas. Public acquisition of open space and shoreline areas will continue to be important. The identification and protection of corridors that link open spaces will be essential to ensure their continual viability. Corridors of regional significance will require multi-jurisdictional planning and protection. Environmentally sensitive lands such as geologically hazardous and steep slope areas, wetlands and stream corridors will require protection from urbanization, growth and development demands. Provision of opportunities for appropriate water-dependent or water-related development along the City's shorelines will continue. It is anticipated that pressures for development of privately owned shoreline property with non-water dependent uses will increase.

Environment

Air, noise and water pollution will continue to be of special concern to the region. Maintaining the quality of the air we breathe, the quiet of our residential neighborhoods, and the quality of the water we drink, live around and use for recreation is essential for assuring the health and welfare of the region. The region's economic development is dependent upon water-related commerce and trade. Maintaining pollution-free waters is vital to present and future economic interests. Ensuring that the region's water resources remain relatively pollution free is paramount to its survival and continual growth and development.

Measures to control suspended particulates (dust, smoke, fumes and other liquid or solid matter) will continue to be needed to maintain air quality in the region. Reduction of the level of transportation related emissions will continue to be important in addressing air pollution problems. Transportation plans and policies concerned with traffic congestion and related air and noise pollution will focus on a multi-modal transportation system and the curtailment of single-occupancy vehicle use.

2.3G PLAN FOR THE GROWTH OF PUBLIC TRANSIT

Concurrent to policies and actions listed in 2.3F, the City of Tacoma can best optimize its existing transportation network through a re-organization of City streets to serve a hierarchy of functions, and better balance street use between vehicular mobility options and transit alternatives.

Working with Pierce Transit and Sound Transit as partners, the City should develop a long term transportation strategy that will better service downtown's growing neighborhoods in a manner more appropriate to the scale of the downtown grid. Well traveled trunk or spine routes can provide the heart of a successful transit system that can then grow with additional feeder and circulator routes. This system, begun with LINK Light Rail, can expand incrementally.

GOAL

Transit shall provide efficient, high quality service connecting jobs, housing, schools, shopping and recreational facilities throughout the downtown and region.

POLICY

- 2.3G.A In collaboration with Pierce Transit and Sound Transit design transit stops and inter-modal connections integrated with the public realm, providing gathering spaces and an improved end-to-end transit experience.
- 2.3G.B Work with Pierce Transit and other transit providers to ensure ride quality on public transit. New vehicles should be of modern design, clean, and universally accessible.
- 2.3G.C Transportation planning should be coordinated with land use decisions, with transit supportive land uses located near to major transit hubs.

2.3G ACTIONS

NEAR TERM (1-3 YEARS)

2.3G.1 In collaboration with Pierce Transit and Sound Transit undertake a 'Downtown Mobility Plan' to further develop transportation solutions that will build robust and stable ridership, and make the case for regionally cooperative, large scale transportation investment.

i. The Plan should identify a series of 'Strategic Transit Corridors' that will provide high capacity transit, and will best serve the downtown's employment and residential needs.

ii. Study the potential for high frequency routes to service between strategic corridors, destinations and nearby neighborhoods.

iii. To fully coordinate routes and service between Pierce Transit and Sound Transit study the impact of relocating the regional transportation hub from the Commerce Street Station.

iv. Recommend street upgrades to maintain mobility for vehicular traffic, such as 21st Street.

MID-TERM (4-7 YEARS)

2.3G.2 Develop a set of performance measures to ensure that transit stops contribute to, rather than detract from, livability.

2012). Shared-use paths provide additional width over a standard sidewalk and, when constructed next to the road, shared-use paths must have some type of vertical (e.g., curb or barrier) or horizontal (e.g., landscaped strip) buffer separating the path area from adjacent vehicle travel lanes.

Transit

Throughout this document, the term transit refers to all existing and proposed transit vehicles and types provided by Pierce Transit and Sound Transit. Existing transit service is provided by bus, the Sounder commuter rail and the LINK light rail. Future transit service may also include streetcars.

Streetcars

Streetcars operate on rails on city roadways and often share a travel lane with automobiles. Streetcars were a basic mode of travel in Tacoma from 1888 to 1938 and helped spur the development of many of Tacoma's commercial districts. The streetcar network linked neighborhoods and business districts to downtown and other noteworthy destinations including Pt. Defiance Park. The network also included a cable car system that looped up and down the steep slopes of downtown on South 11th and South 13th Streets so people could avoid the strenuous hill climb on foot. By 1912 Tacoma had developed a comprehensive streetcar line with 125 miles of track in the city and additional electric rail connecting Tacoma to Seattle. But as automobiles began to dominate the streets, streetcars became less financially feasible and the streetcar line closed in 1938.

Tacoma hopes to regain some of the efficiency of its historic rail system with a new streetcar line. Tacoma's 1.6 mile LINK light rail opened in 2003 and connects the Tacoma Dome area to the downtown theater district. **The City is currently planning for expansion of the LINK with streetcars.** Tacoma envisions an efficient and sustainable streetcar network that will serve to enhance both the non-motorized and motorized transportation systems. As the streetcar line is developed and designed, access for pedestrians and bicycles will be evaluated and planned simultaneously so users have many mode options for arriving at the station and their destination. Streetcars will be pivotal in creating a more fully integrated multimodal transportation system for Tacoma's future.



Tacoma LINK Light Rail



Pierce Transit SHUTTLE



Bikes and Transit Coexist

Social Equity & Opportunity, Support for Centers, and Travel. The prioritization will inform the 2014 update to Transportation 2040, PSRC's regional transportation plan, and will inform future project funding allocations. The Brewery District Complete Streets project ranked 8th out of 126 key arterial projects regionwide.

RECOMMENDATION M-15: Continue to pursue PSRC prioritization and funding of the Brewery District Complete Streets Project.

Transit Projects

Market Street Transit-Priority Street

As South Downtown grows and the UWT expands, there will be an increasing need for transit service running parallel to Pacific Avenue. To meet this need, Market Street would be a logical choice for a transit corridor, with a continuation to the south on Jefferson Avenue. This potential is recognized in the 2008 UWT *Campus Master Plan Update*, which proposes transforming Market Street into a transit-priority street. Pierce Transit, however, has not approved this concept, and the project would require extensive planning in coordination with that agency. If there is consensus that Market Street is an important future transit corridor, then it will be important to formalize that commitment such that all future street improvements are designed accordingly. Market Street has also been identified as potential bicycle corridor, and careful design would be necessary to avoid creating conflicts between bicycle routes and bus service.

RECOMMENDATION M-16: Engage Pierce Transit and the University of Washington to develop a long-range plan for transforming Market Street into a transit-priority street.

LINK Light Rail Extension

Urban light rail not only provides high-quality transit service, but also can be a powerful catalyst for economic development. On May 23, 2013 the Sound Transit Board approved the North Downtown Central Corridor, known as "E1," as the alignment to move ahead with further environmental review for a potential expansion of the Tacoma Link light rail system.

The E1 alignment will connect South Downtown to the Stadium District and Martin Luther King Jr. mixed use center. It continues the existing LINK line north on Commerce Street, to South Stadium Way, to North East Street, left onto North 1st Street, to Division Avenue, and south on Martin Luther King Jr. Way, terminating at South 19th Street. The 2.3-mile route will undergo further evaluation, and once environmental review is complete, the Sound Transit Board will take final action on the project route, station locations and project funding. With the exception of "E2," the other alternatives that were under consideration would have had less positive impact on South Downtown.

RECOMMENDATION M-17: Support the selection of the North Downtown Central Corridor (E1) alternative for the LINK light rail extension.

Amtrak Station Relocation

WSDOT is currently planning to shift the Amtrak route to the Point Defiance bypass route currently being used by Sounder.⁵ WSDOT's proposed project will involve moving the Amtrak Station from its current location at Puyallup Avenue and East J Street to Freighthouse Square, the current location of the Sounder station. A new Amtrak station in the heart of the Dome District would serve as a valuable neighborhood asset, and the station can be expected catalyze the rejuvenation of the Freighthouse Square building, tenant businesses, and the surrounding area. However, the Dome District community has raised concerns about parked trains

⁵ WSDOT (2012). Point Defiance Bypass Project Environmental Assessment.

Pierce County subarea

SUMMARY OF ESTIMATED ST2 PROGRAM COSTS AND REVENUES

(Millions of year-of-expenditure dollars)*

Projects

SOUNDER COMMUTER RAIL

- Expanded service and fleet
- Sumner Station access project
- Puyallup Station access project
- Tacoma Dome Station access project
- South Tacoma Station access project
- Lakewood Station access project
- Track and structure upgrades in Tacoma
- 8-car platform extensions
- Yard and shops facility contribution

	CAPITAL	O&M	TOTAL
Total costs	887	202	1,089

ST EXPRESS BUS

- Approximately 15,000 additional ongoing annual service hours
- Operating savings from service reinvestment in response to rail operation
- Contribution to bus fleet expansion
- Contribution to bus maintenance capacity expansion

	CAPITAL	O&M	TOTAL
Total costs	58	45	103

LINK LIGHT RAIL AND OTHER

- Environmental review and preliminary engineering from Redondo/Star Lake to Tacoma Dome
- Right-of-way preservation
- **Contribution to Tacoma Link expansion**
- Contribution to system maintenance capacity, fleet and annual operation

	CAPITAL	O&M	TOTAL
Total costs	265	0	265

Sources and uses of funds

SOURCES

Sound Move surplus	387
ST2 taxes	1,278
Federal grants	74
Bonds	234
Fares and other operating revenues	80
Total sources	2,053

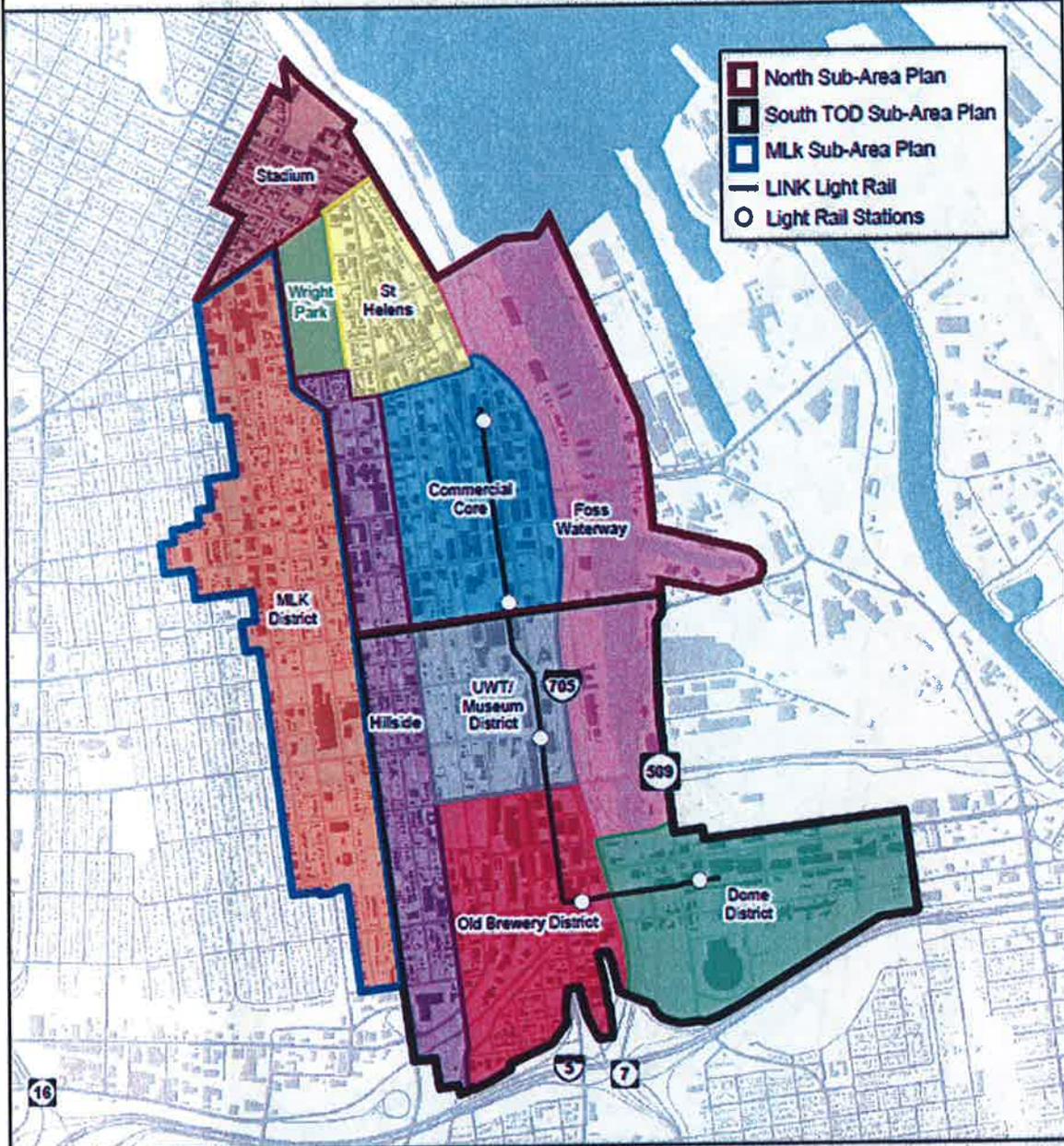
USES

Sounder commuter rail capital	887
ST Express bus capital	58
Link light rail capital	265
Sounder commuter rail O&M	202
ST Express bus O&M	45
Link light rail O&M	
Debt service	366
Contribution to reserves	40
Contribution to system-wide	190
Total uses	2,053

*2009-2023, includes inflation.

Note: Columns/rows may not add exactly due to rounding.

Tacoma Downtown Districts (in Color) and Three Sub-Area Planning Areas



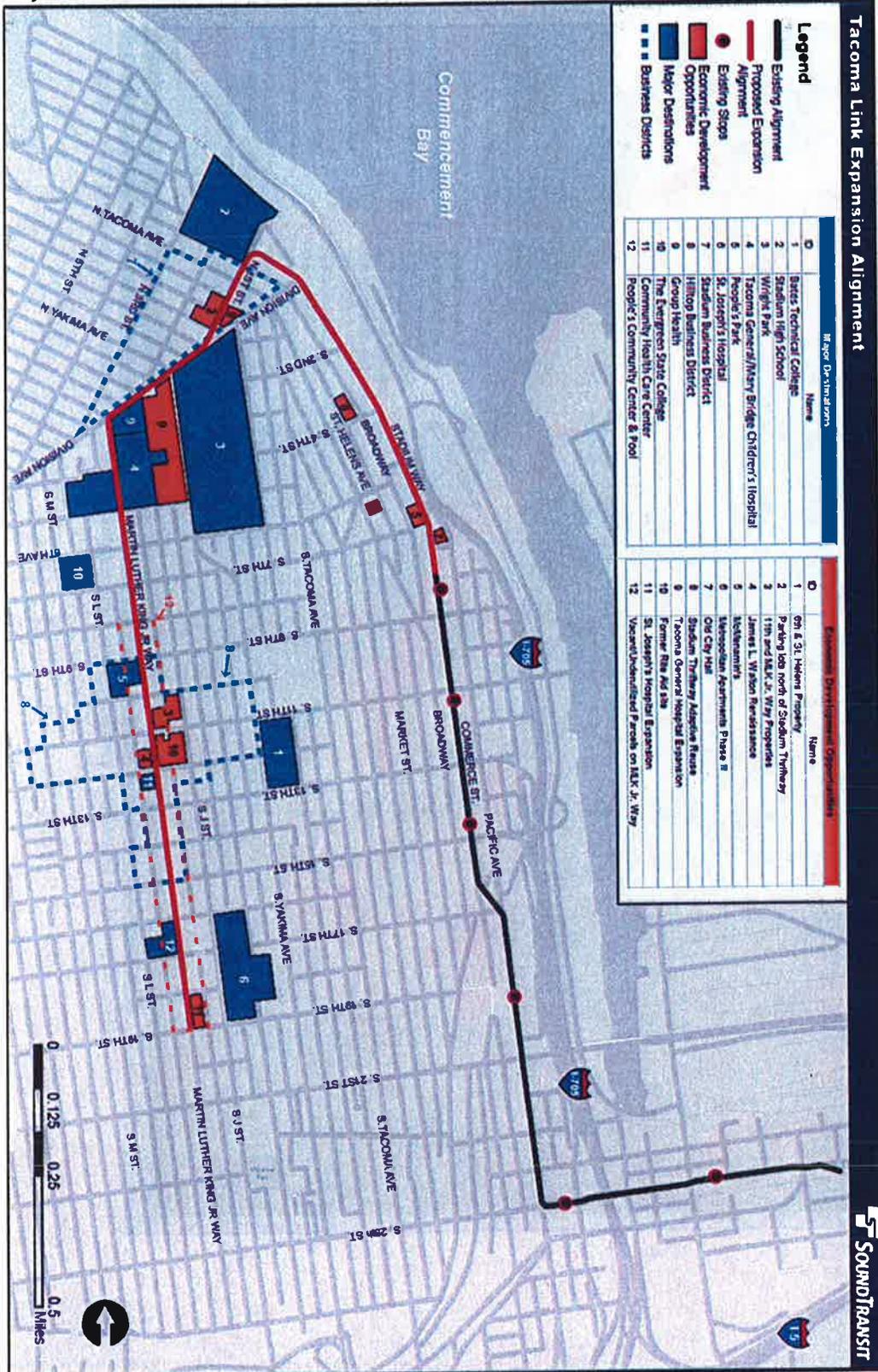
- North Sub-Area Plan
- South TOD Sub-Area Plan
- MLK Sub-Area Plan
- LINK Light Rail
- Light Rail Stations



Miles

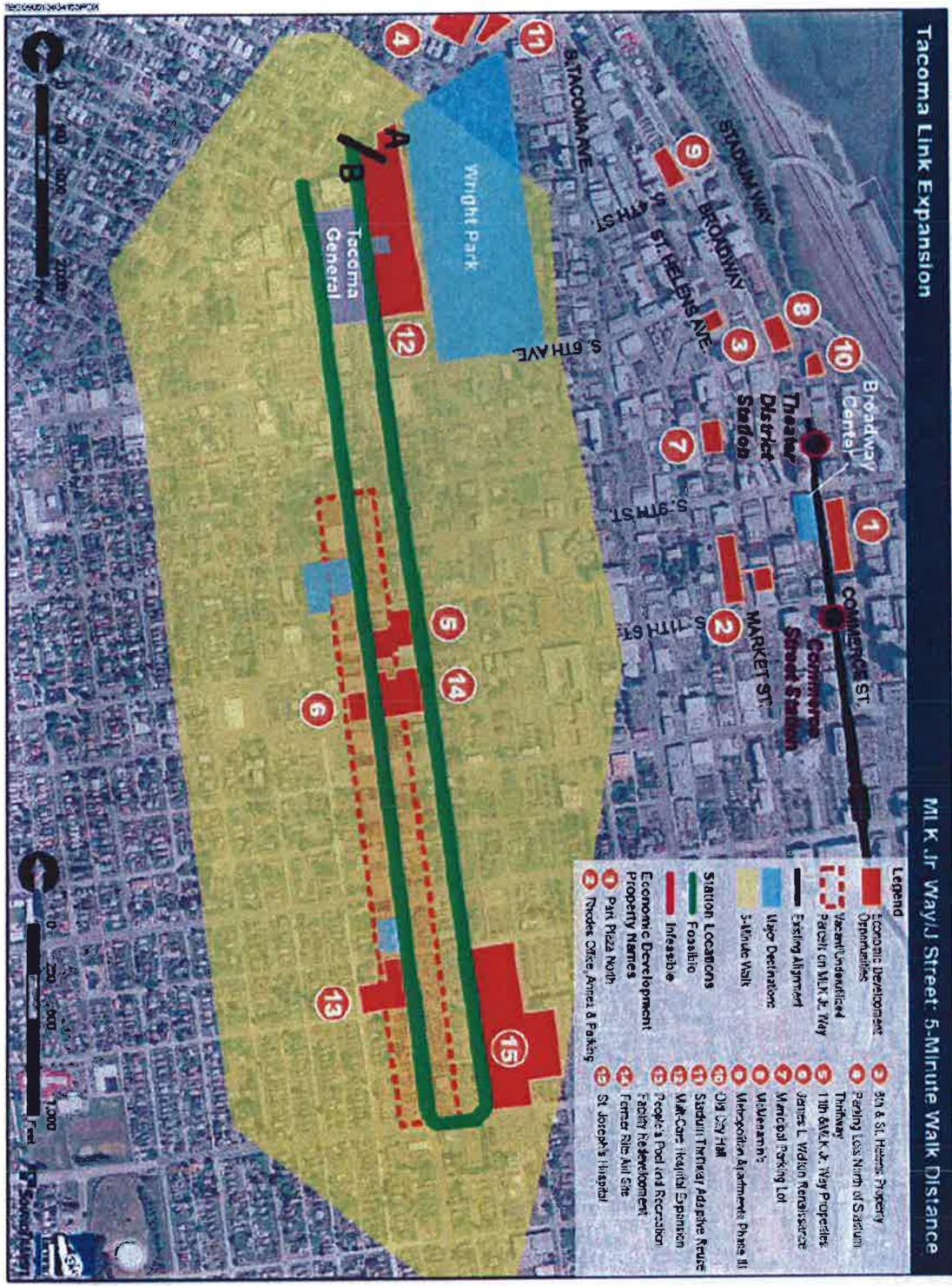
Map is for reference only.

Major Destinations and Economic Development Opportunities

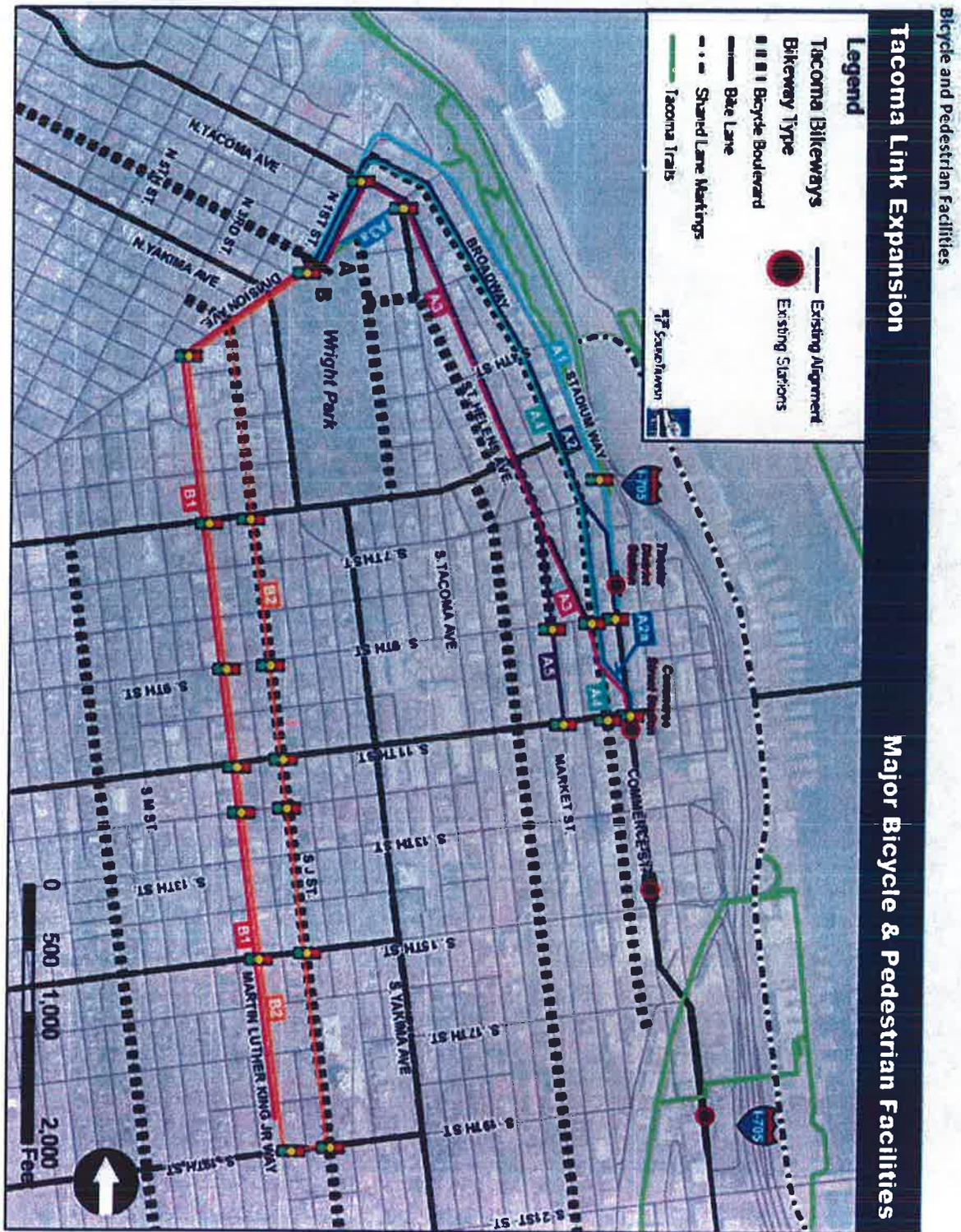


Major Destinations, Economic Development Opportunities and 5-Minute Walk Distance (MLK Way)

Major Destinations, Economic Development Opportunities, and 5-minute Walk Distance for Alignments B1 and B2



Bicycle and Pedestrian Connections



Tacoma Link route and stations

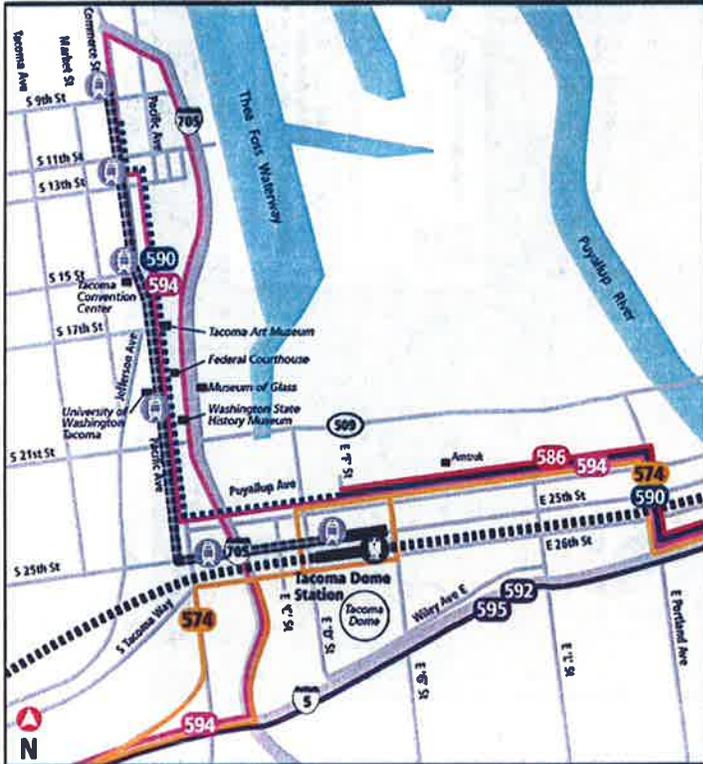


Current Tacoma Link system

- 1.6 miles long
- 1 million riders per year

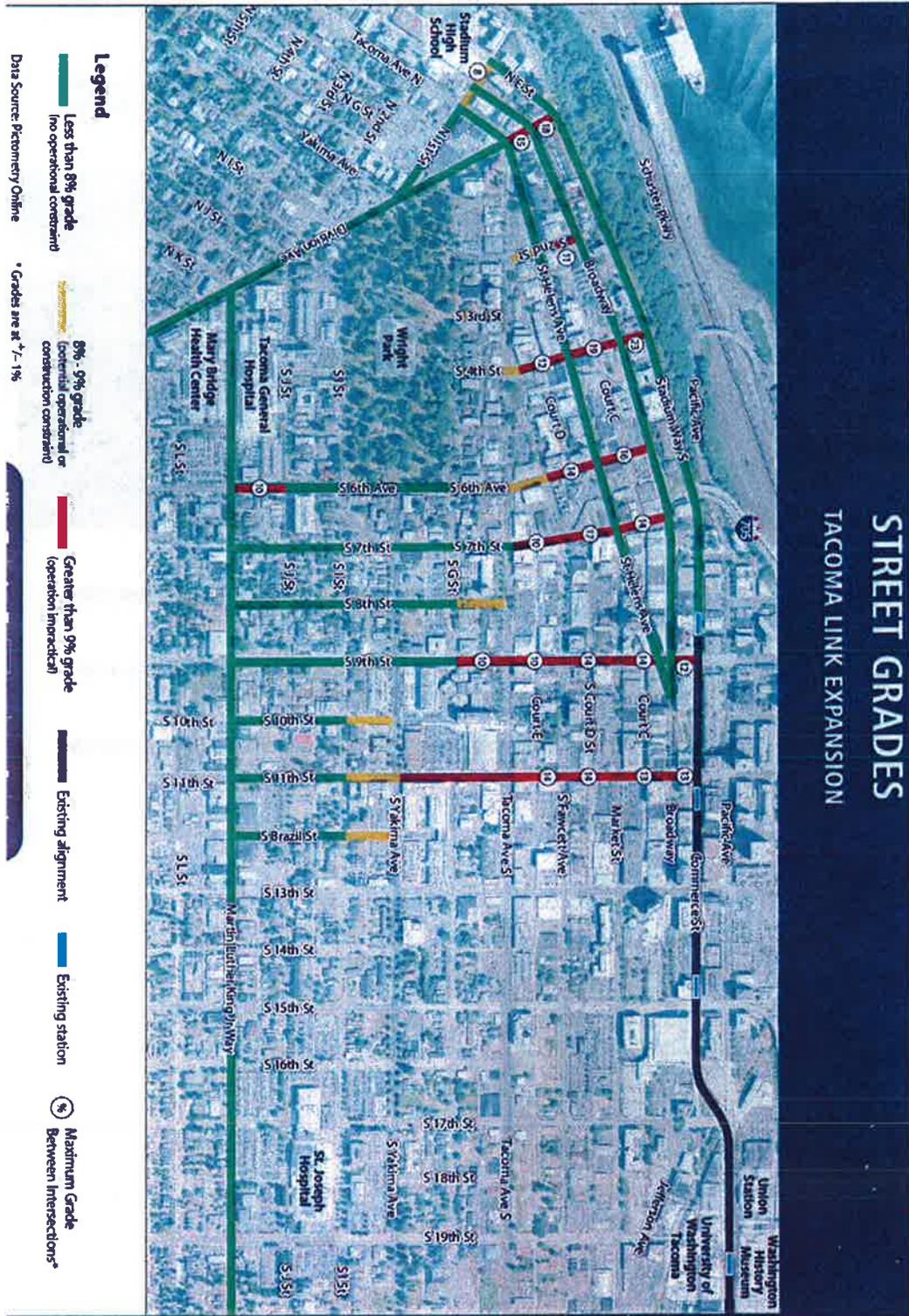
With Tacoma Link Expansion...

- 4 miles long
- 3.5 million riders per year



Current Sound Transit service in Downtown Tacoma, including Tacoma Link light rail, ST Express bus service and Sounder commuter rail.

**Street Grades are Barrier to Accessibility:
Grades are Greater than 9% from Downtown Tacoma to the Hilltop District**



Photos of the Original Tacoma Link Vehicles Being Delivered in 2002

Currently, there are three Tacoma Link light rail vehicles operating on the existing Tacoma Link system (which is 1.6 miles long). The original three Tacoma Link cars were manufactured in the Czech Republic by Škoda in 2001-2002. The Tacoma Link cars were delivered to Sound Transit in September 2002, prior to the 2003 opening of Tacoma Link.

This grant request is to procure approximately six (6) additional vehicles for the expansion of the Tacoma Link system. The Tacoma Link Expansion project will extend the system another 2.4 miles. After the expansion, the system will be approximately 4 miles long.



Tacoma Link vehicles are 66 feet long, 8 feet wide, and have two articulations in the middle.

The cars have a total capacity for 157 people, with 30 seated and 127 standing.

The cars draw their power from 750-volt overhead wires.



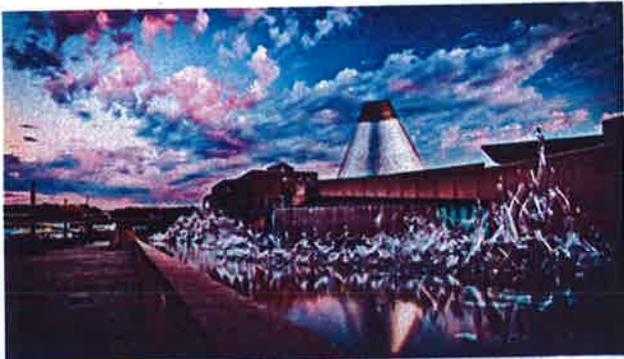
Major Destinations Served by Tacoma Link Expansion



UW-Tacoma



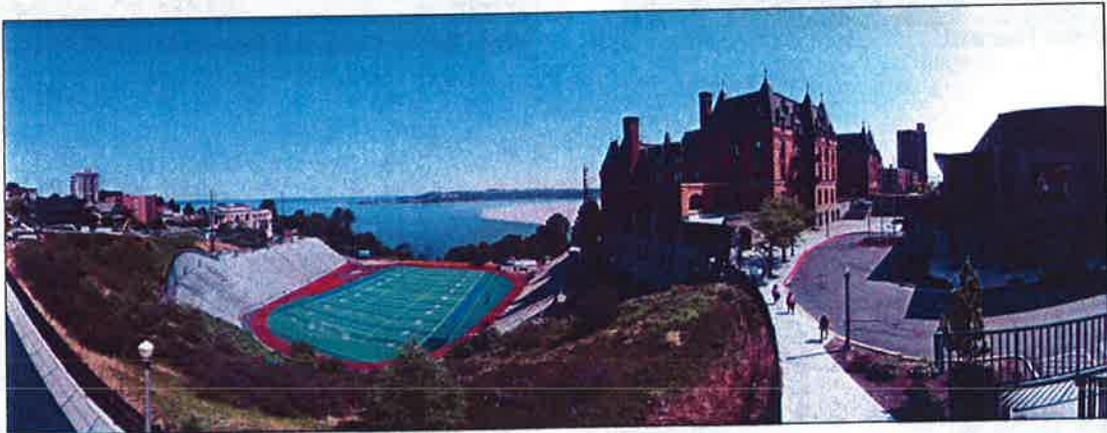
Washington History Museum



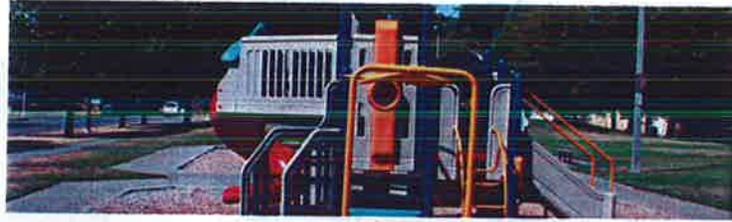
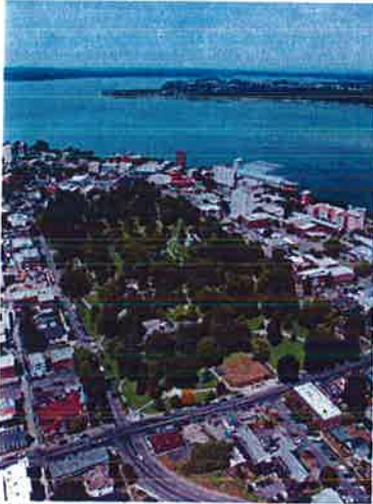
Museum of Glass



Pantages Theater



Stadium High School



Wright Park, People's Park and People's Community Center and Pool



Tacoma General Hospital



Mary Bridge Children's Hospital



St Joseph's Hospital



Hilltop Business District

Description and Timeline of the Procurement Process for Light Rail / Streetcar Vehicles

During the FTA presentations, PSRC staff requested information on why Sound Transit needs to secure grant funding and start work now in order to procure Tacoma Link Expansion vehicles needed for service in 2020. In sum, work on the vehicle procurement should begin in 2014/2015 for the vehicles to be manufactured starting in 2017 and start testing in 2019.

Buying streetcars using an FTA procurement process (in compliance with Buy America requirements) and putting those vehicles in service takes years. Some main factors involved in procuring vehicles include:

- 1) Additional schedule is required to comply with FTA's procurement requirements, including the Buy America requirement. Procurements using an existing option on a contract can be done relatively quickly. However, brand new FTA-approved procurements take longer. On March 8, 2013, FTA issued a Dear Colleague letter stating that FTA permits the assignment of unneeded contract rights to another transit agency (aka "piggybacking") only when a recipient has unintentionally acquired more goods than it needs. In sum, most transit agencies must develop brand new procurements to comply with FTA requirements. Completing a brand new procurement instead of using an existing option takes longer. FTA's requirements regarding piggybacking are in FTA Circular 4220.1F.
- 2) Additional schedule is also required for potential delays by the manufacturer (ie "schedule float"). To comply with FTA's Buy America requirements, vehicles must be made in the US, which limits the number of manufacturers available. Currently, Siemens, Kinkisharyo, Ikekon and United Streetcar are the only companies capable of manufacturing streetcars that complies with FTA's Buy America requirements. United Streetcar, formed in December 2005, is a relatively new manufacturer. Recent vehicle procurements done by other agencies have experienced delays. (For example, Portland's streetcars manufactured by United Streetcar experienced delays of one year.) The schedule for Tacoma Link Expansion includes schedule float for the possibility of delays in receiving the vehicles.
- 3) Testing and Start-up: An agency cannot just buy a vehicle and put it on the track and into service. Each vehicle must undergo detailed testing for safety and functionality (i.e. make sure the vehicle works with the overhead catenary wires.)

Tasks and Timeline for Procuring Tacoma Link Expansion Light Rail Vehicles

Task	Description of Task	Year	Duration
Write Technical Specifications and Request for Proposal (RFP)	Detailed description of what is to be built. APTA's Vehicle RFP Procurement Guideline /template is over 400 pages	2014	12 months
Prepare Request for Proposal	Involves assembly of commercial provisions, general and special conditions, warranty requirements, milestone payments and acceptance and final acceptance requirements	2015	8 months
Issue Request for Proposal		2016	6 months
RFP Review		2016	2 months
Carbuilder Interviews		2016	1 month
Prepare Best and Final Offer		2016	2 months
BAFO Review		2016	2 months
Select Most Qualified Builder		2017	1 month

Protest Period		2017	2 months
Pre Award Audit		2017	1 month
ST Board Approval	ST Board approval process typically takes 4 weeks	2017	1 month
Notice to Proceed (NTP)	Work begins on building the vehicles.	2017	
First Streetcar Arrives	It can take 24 months for the first streetcar to be designed and built.	2019	24 months from NTP
Qualification Testing	Each car undergoes a 500-mile "burn in" period, which is designed to test the LRV's safety and functionality. The manufacturer has an on-site inspection and testing process for each LRV witnessed by Sound Transit.	2019	6 months
Second through the sixth Streetcar arrives	The 2nd through 6th new LRVs will arrive over a 12 month period.	2020	12 months
Pre-revenue service	Provide training for operators, supervisors and have the public become familiar with streetcars in operation	2020	2 months
Revenue Service	Overall, LRV lifespan is at least two-million miles or 25 years.	2021-2051	25 years

Note: The vehicles for the South Lake Union and First Hill Streetcars and the original Tacoma Link light rail system were built by SKODA of the Czech Republic. These procurements were not done using FTA funding and do not comply with Buy America. The Tacoma Link Expansion vehicles will use an FTA procurement process and comply with Buy America.