



FRED HUTCHINSON CANCER RESEARCH CENTER

A LIFE OF SCIENCE

SKYBRIDGE PETITION

OCTOBER 28, 2011

Seattle City Council
600 Fourth Avenue, 2nd Floor
Seattle, WA 98104

ZGF ARCHITECTS, LLP
925 4th Avenue, Suite 2400
Seattle, WA 98104

Seattle Department of Transportation
700 Fifth Avenue, Ste 3900
Seattle, WA 98124

ZGF

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FRED HUTCHINSON
CANCER RESEARCH CENTER

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October 28, 2011

Seattle City Council
c/o Monica Martinez Simmons, City Clerk
600 – 4th Avenue, Floor 3
Seattle, WA 98124-4728

RE: FRED HUTCHINSON CANCER RESEARCH CENTER
1100 EASTLAKE SKYBRIDGE PETITION
SMC CHAPTER 15.64

Honorable Members of the Seattle City Council:

As you are aware, Fred Hutchinson Cancer Research Center (the "Center") is a world-renowned research facility with its main campus in South Lake Union. The Center acquired the 1100 Eastlake Building in December 2011 and is in the process of transforming it into laboratory facilities for its Vaccine and Infectious Diseases Division.

The Center has worked hard over many years to generate a creative and collaborative environment for research and to provide corresponding facilities that further that endeavor. A central tenet of our research process is the ability to readily interact with fellow researchers, share ideas, learn about other successes and failures, and provide a stimulating and safe environment for our staff. We have found that an important part of this process is to provide many points of interaction throughout the campus. This is apparent from the many pathways and skybridges that currently connect the campus buildings.

To foster the desired level of interaction and to provide consistency with the existing connections between other buildings, the Center originally hoped to establish three connections between 1100 Eastlake and its campus: a crosswalk, a tunnel and a skybridge. With regard to the crosswalk, Eastlake Avenue E separates 1100 Eastlake from the main campus. After review, SDOT determined that an unsignalized crosswalk would not be safe given the high vehicle speeds and limited sight lines around the building. In addition, a subsequent Pedestrian Crossing Analysis by Heffron Transportation found that a traffic signal is not warranted at this location. A copy of SDOT's determination is at Tab 7. A copy of Heffron's crossing analysis is in Appendix B of the SEPA Checklist at Tab 5.

As for the tunnel, we are currently seeking approval of a service tunnel to connect 1100 Eastlake to the mechanical level in the Weintraub Building directly across the street. The primary use for this connection is to transport waste, dirty glassware and laundry, etc. from 1100 Eastlake to the shared services below grade in the Weintraub Building. As will be discussed in this package, mixing both service and research activities inside the tunnel would provide neither a safe nor practicable connection for researchers.

As the enclosed materials show, we have designed the structure to be transparent and unobtrusive, yet also consistent with the Center's widely praised architectural design themes.. In addition, given the location below I-5, there will be no impairment of views.

At Tab 8, we present our thoughts on public benefits that could be provided in connection with this application.

We urge you to review the enclosed materials closely, and to approve our petition for this skybridge. Approval of this structure will enhance the interactive, collaborative environment that is key to the success of the Center's mission to prevent, diagnose and treat cancer. The Center thanks you for your consideration of this application.

Sincerely,

FRED HUTCHINSON CANCER RESEARCH CENTER

Scott Rusch
Vice President, Facilities and Operations

Enclosure: Skybridge Petition Package

TAB TABLE OF CONTENTS

1

CONCEPTUAL DRAWINGS OF SKYBRIDGE

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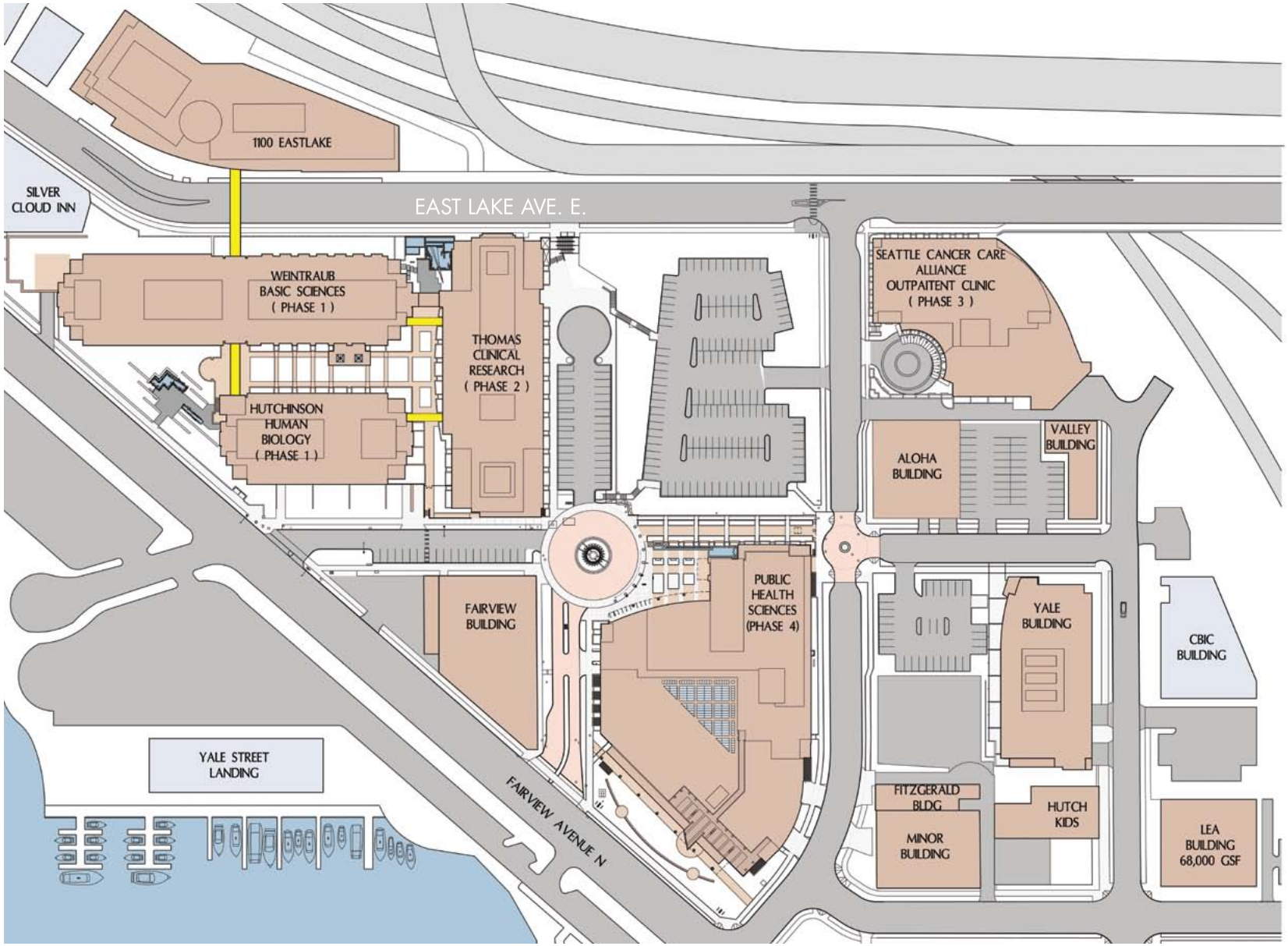

CAMPUS PLAN - 2011

N

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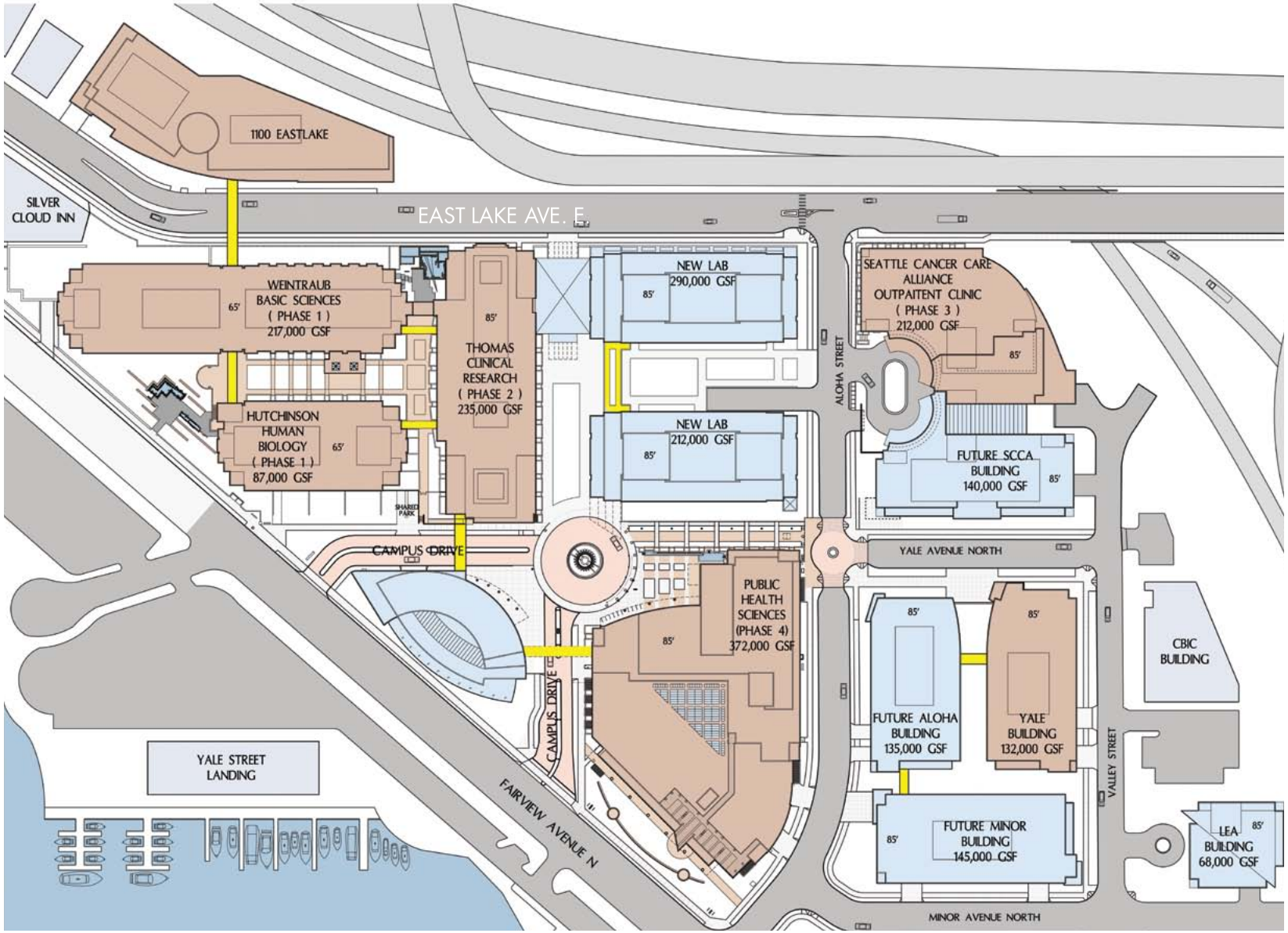
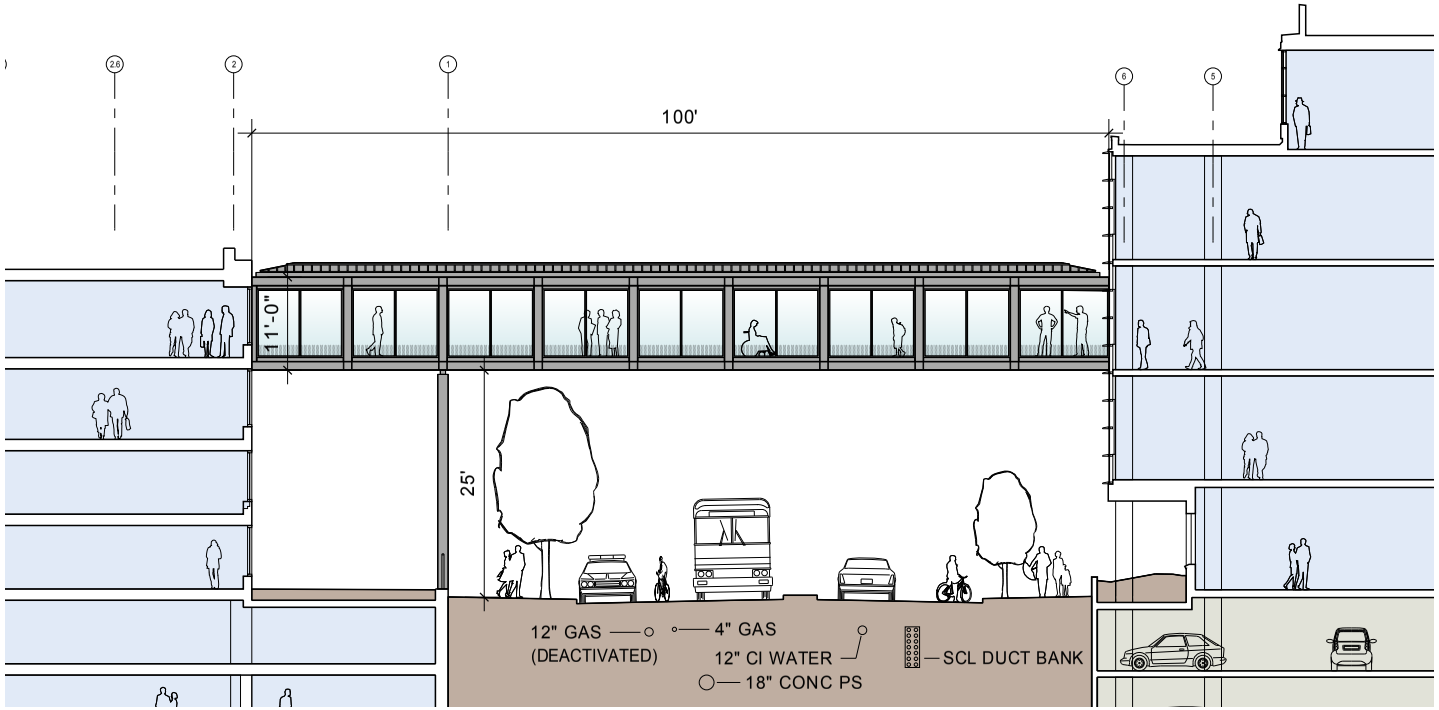


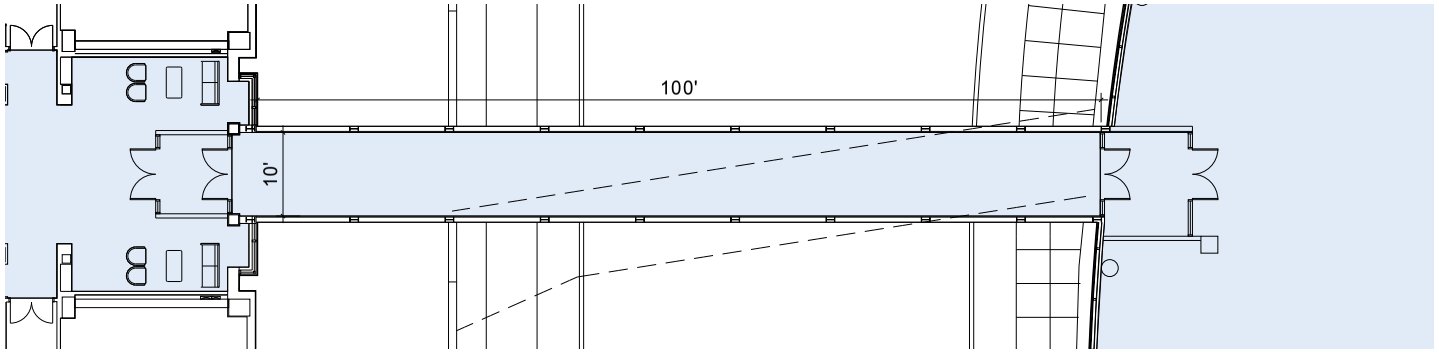
MASTER PLAN - FUTURE

N



SKYBRIDGE ELEVATION FACING NORTH

0' 2' 4' 8' 16'



SKYBRIDGE PLAN

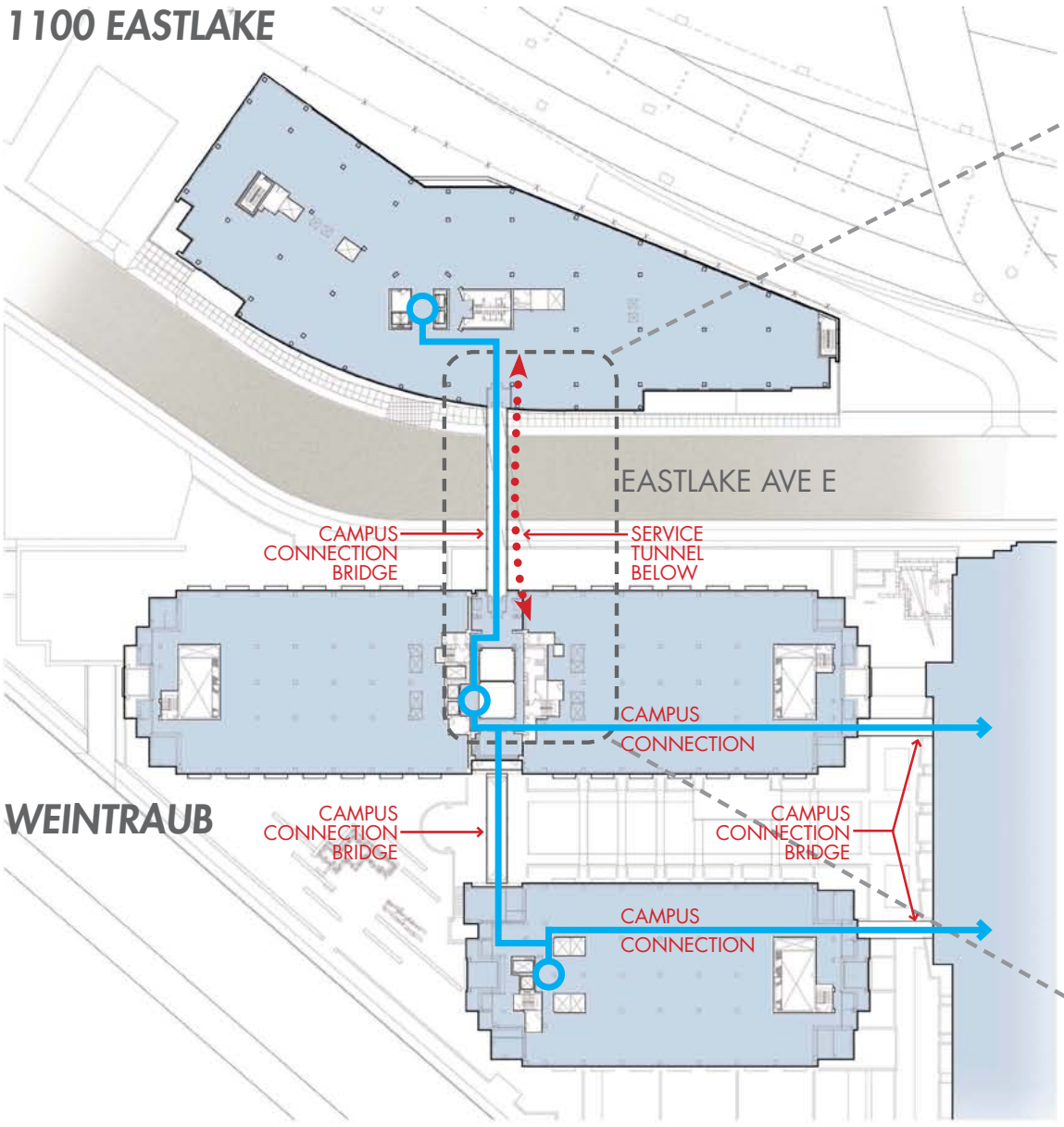
0' 2' 4' 8' 16'

N

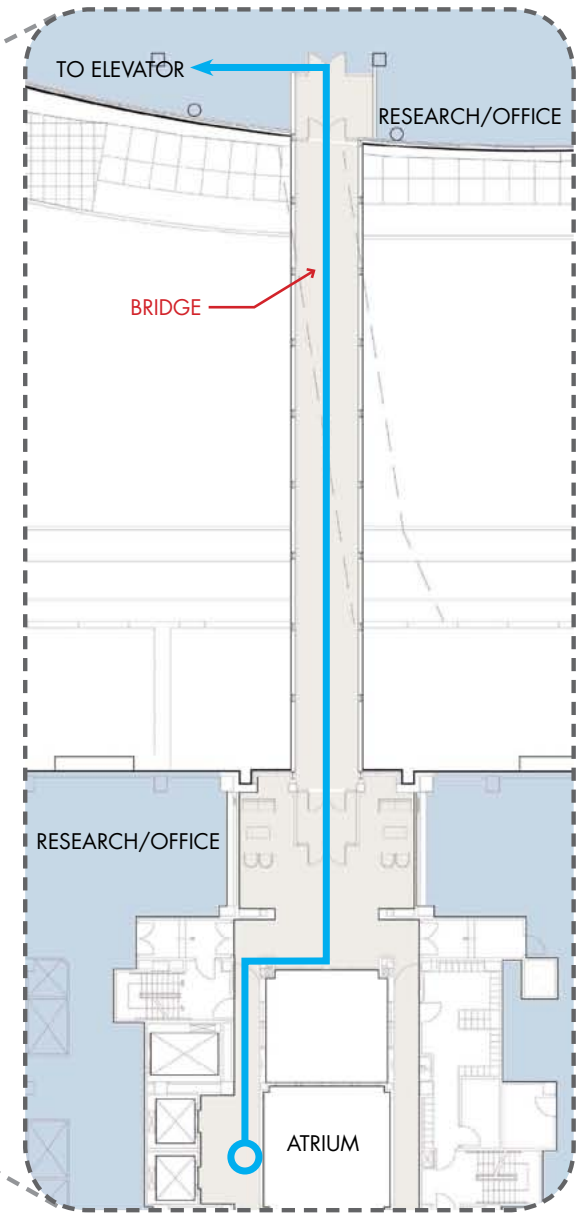
FHCRC

SKYBRIDGE SECTION AND PLAN

1100 EASTLAKE



SITE PLAN



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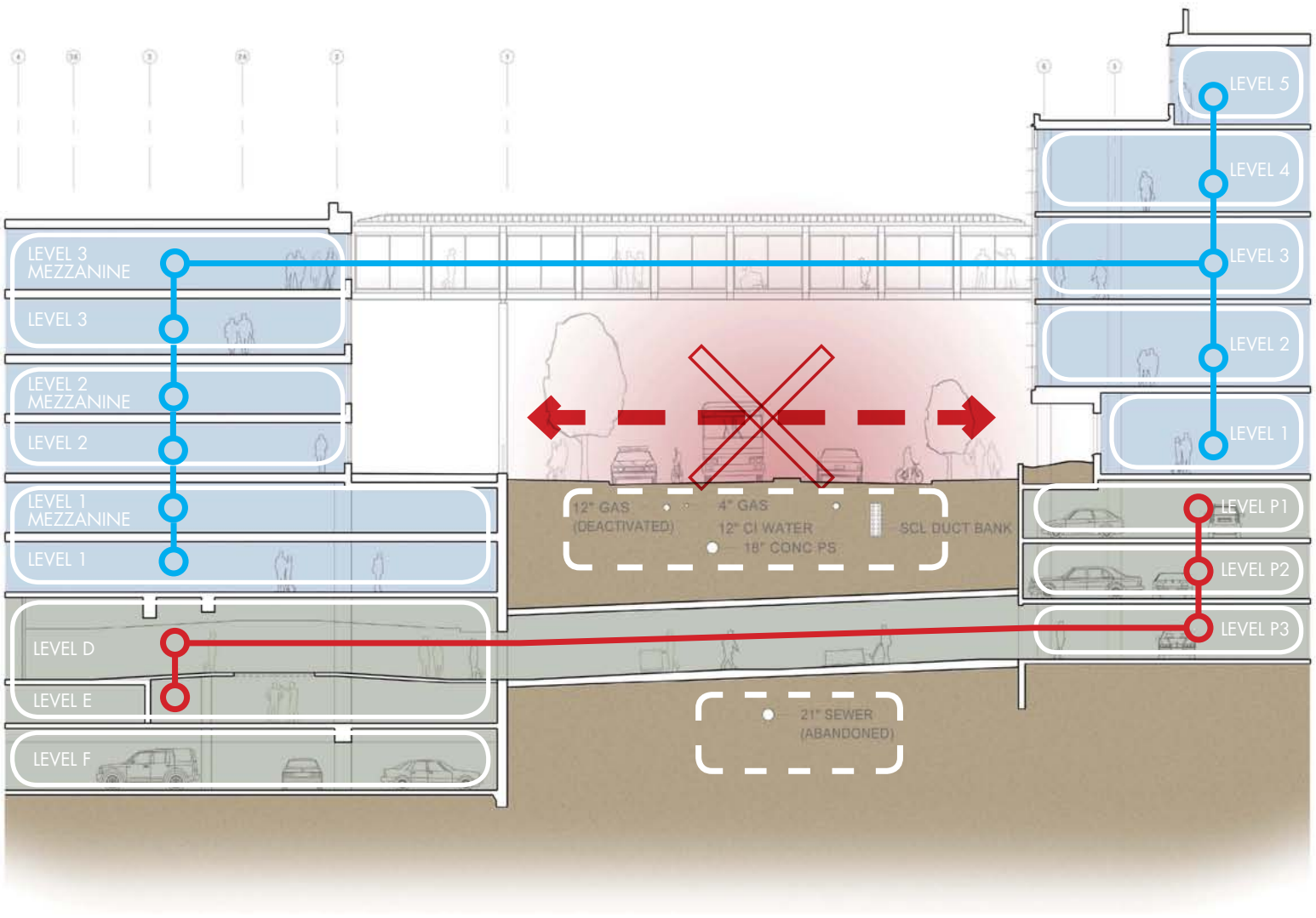

RESEARCHER CIRCULATION

SERVICE CIRCULATION

PROPOSED

CAMPUS CONNECTION

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2

CONCEPTUAL DRAWINGS OF ALTERNATIVES TO SKYBRIDGE

OPTIONS		Safety: Street Crossing	Safety: Mixing Uses	Cost	Ease of Access	No Program Loss	ADA compliance	No Cut & Cover Required	Consistency with Campus Planning	Comments
Proposed	Skybridge	●	●	$$	●	●	●	●	●	
1	New Pedestrian Crosswalk	●	●	$	◒	●	●	●	○	Denied by SDOT
2	Shared Tunnel For Service and Research	◒	○	$	○	●	●	●	○	
3	Separate Service + Research Tunnels - North of Stair	◒	◒	$$$	○	○	◒	○	○	
4	Separate Service + Research Tunnels - South of Stair	◒	◒	$$$	○	○	●	○	○	
5	Separate Tunnels - Research Connection at South Weintraub	◒	●	$$$	○	○	●	●	○	
6	Separate Tunnels - Research Tunnel Above	◒	●	$$$	◒	○	●	○	○	
7	Separate Tunnels - Research Tunnel Above With Slope	◒	●	$$$	◒	○	◒	○	○	
8	Separate Tunnels - Research Tunnel Above With Escalator	◒	●	$$$$	◒	○	◒	○	○	

OVERVIEW:

In evaluating the feasibility of the various alternatives, the Center identified eight criteria by which to evaluate their practicality. The following matrix identifies the criterion and the extent to which the proposal and each alternative satisfies or does not satisfy that criterion.

LEGEND

● YES

○ NO

◒ SOMEWHAT

CRITERIA MATRIX

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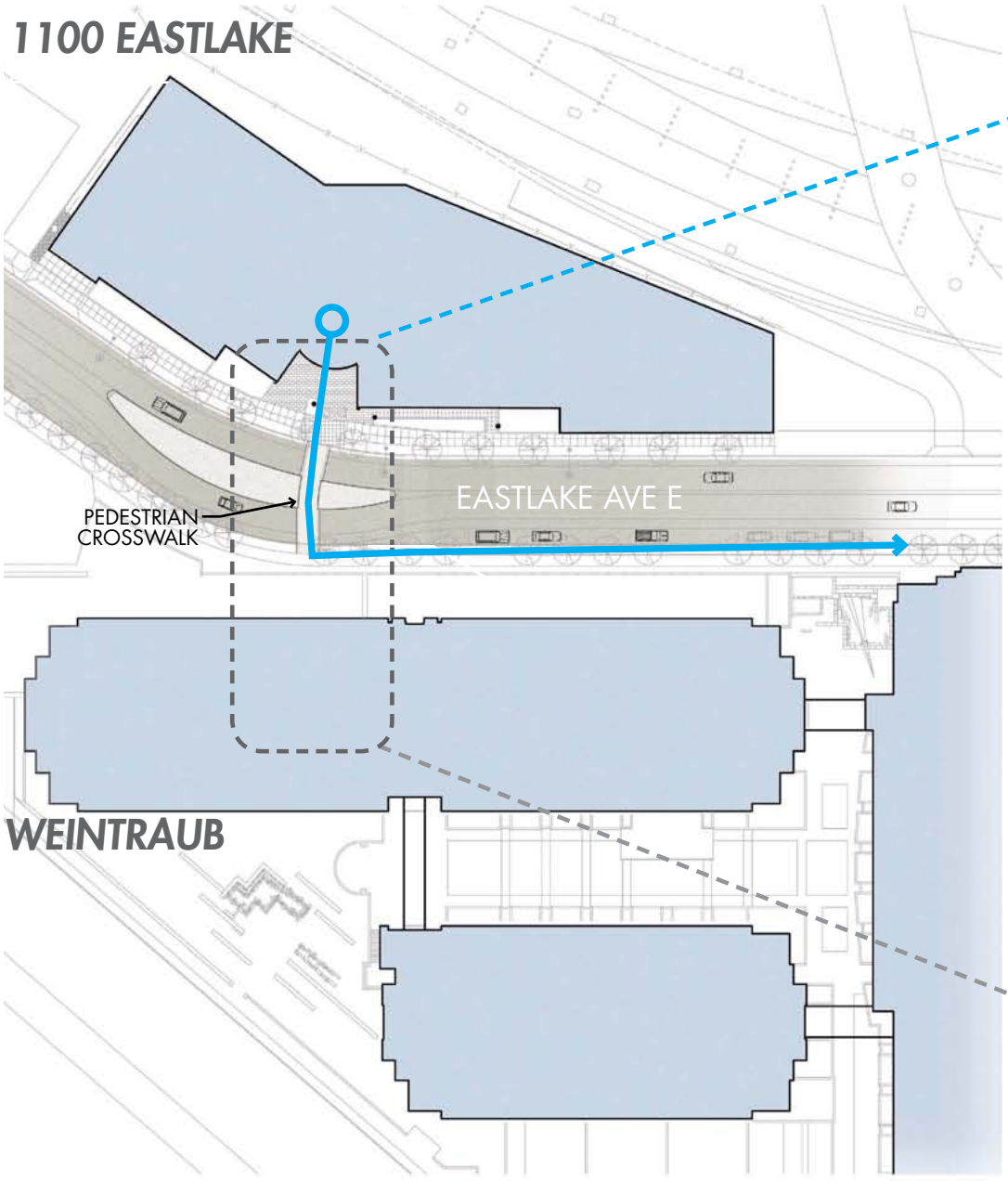
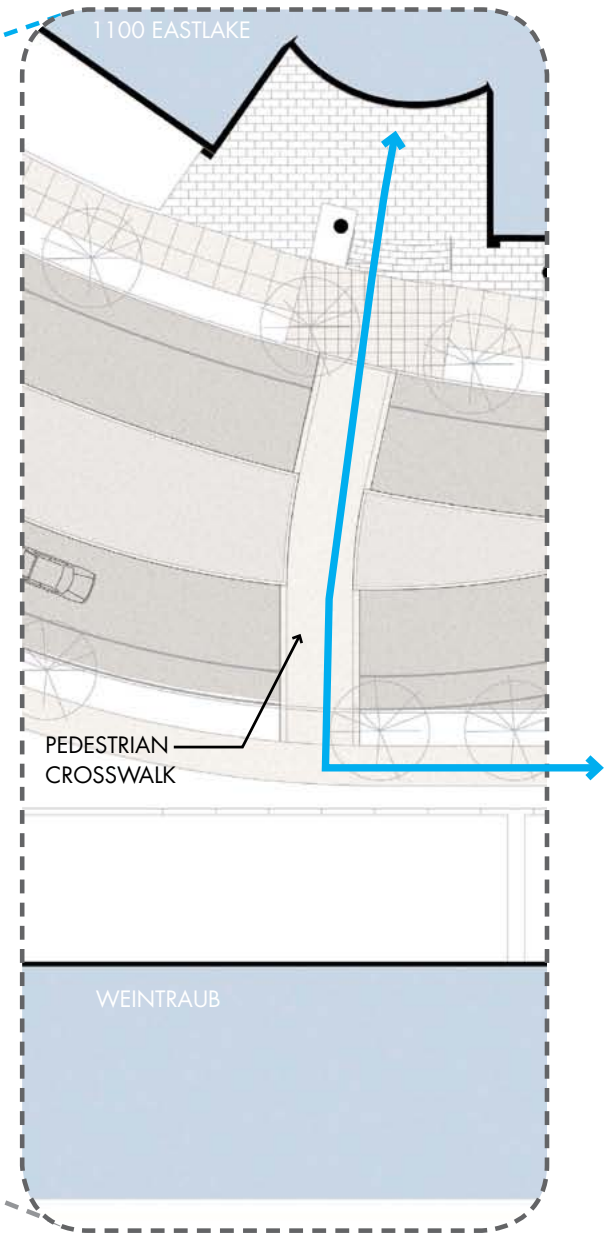


SITE PLAN



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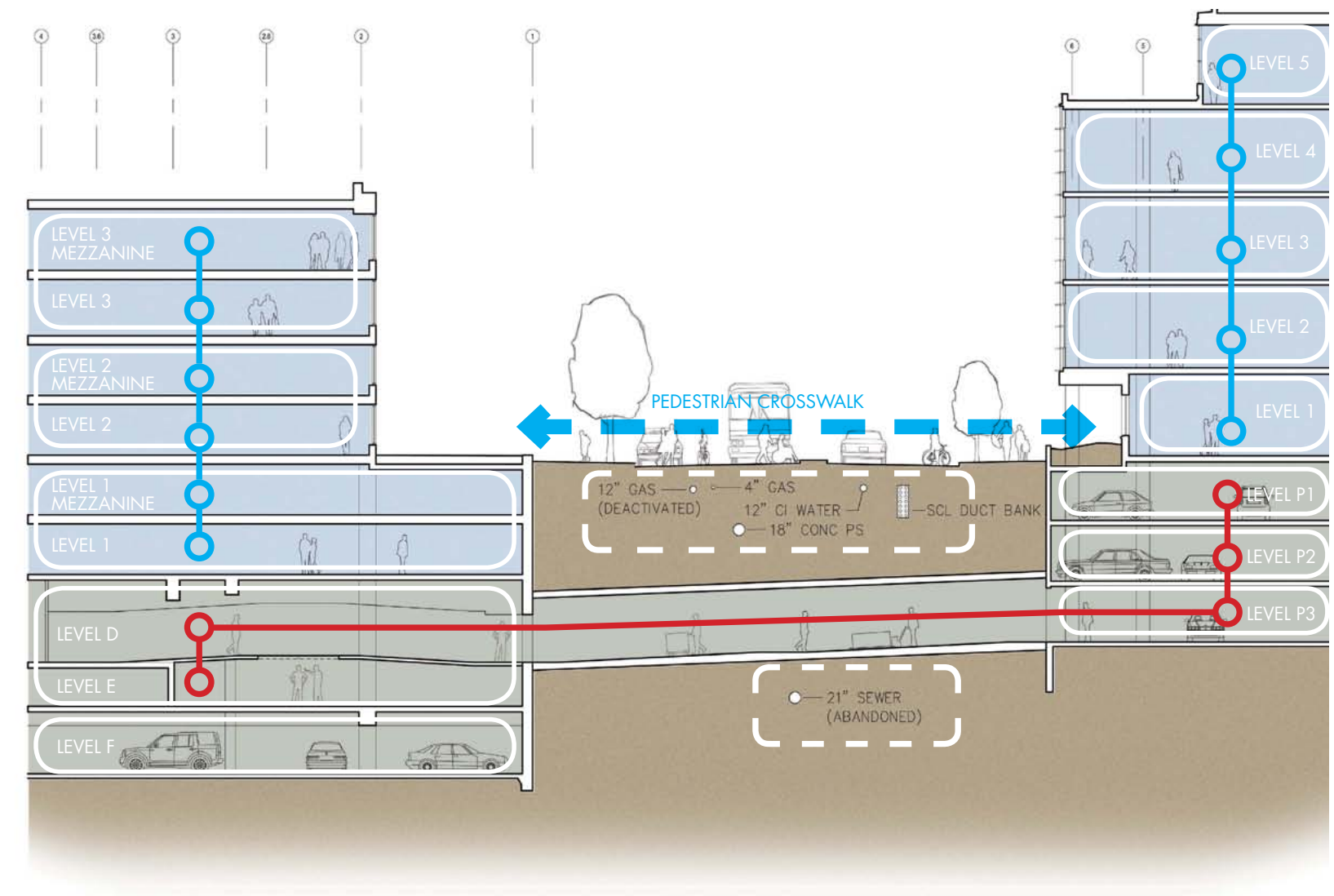

RESEARCHER CIRCULATION

SERVICE CIRCULATION

CAMPUS CONNECTION

ALTERNATE 1

NEW PEDESTRIAN CROSSWALK

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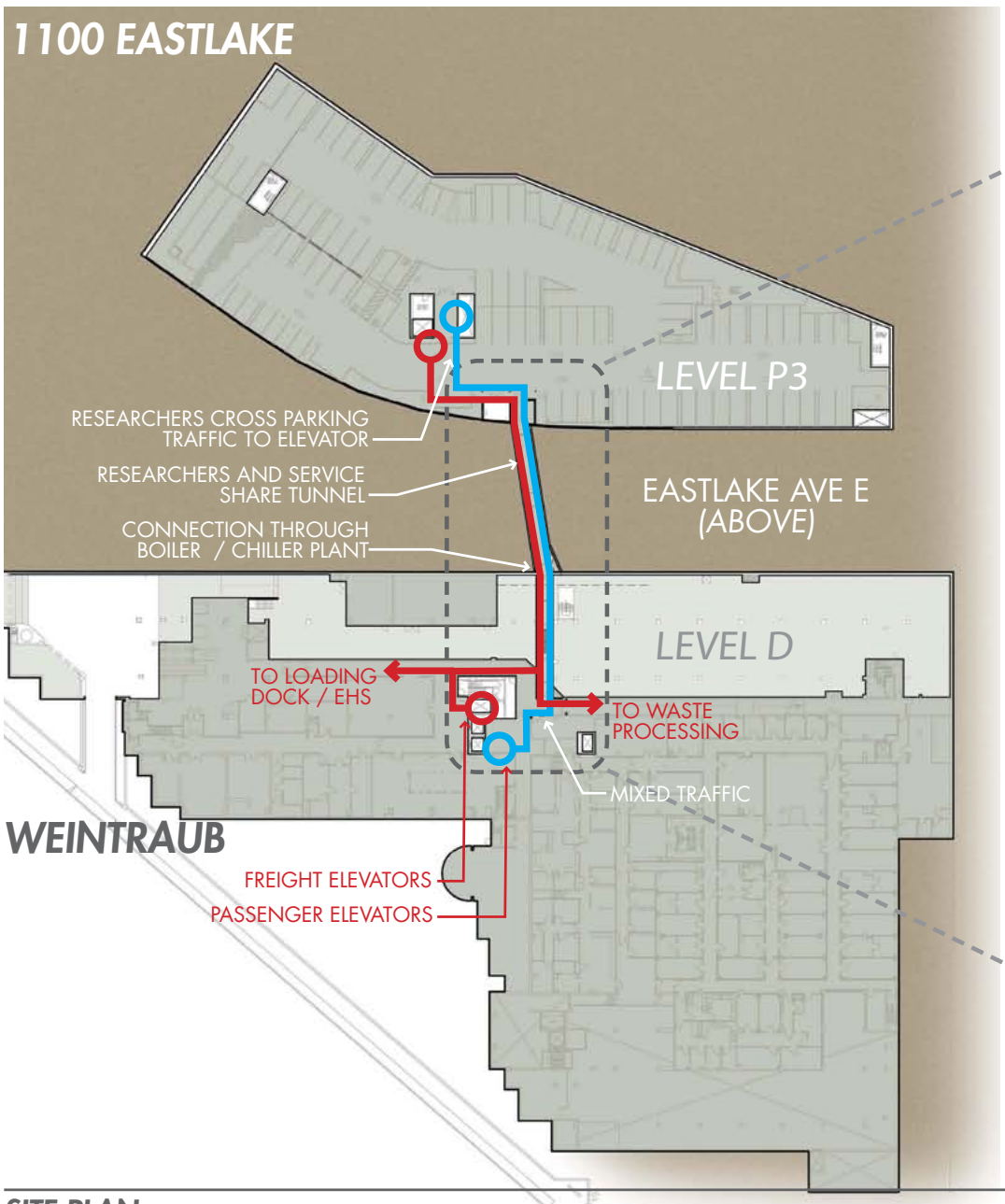

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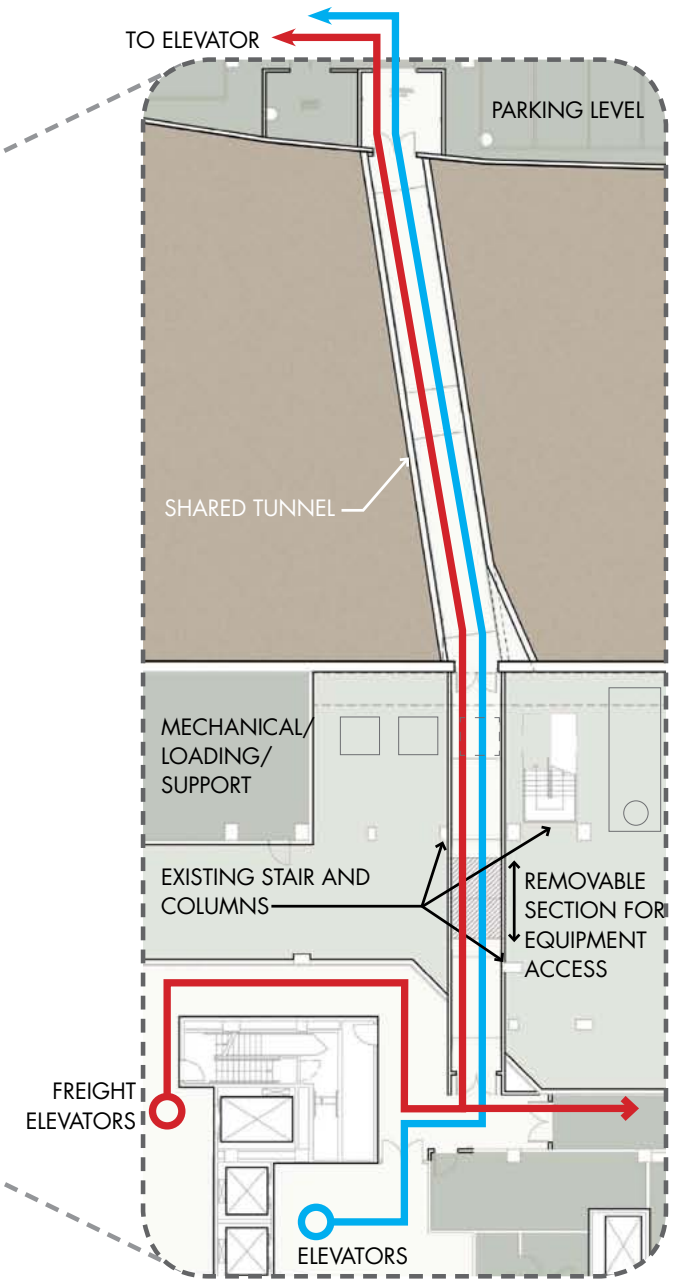

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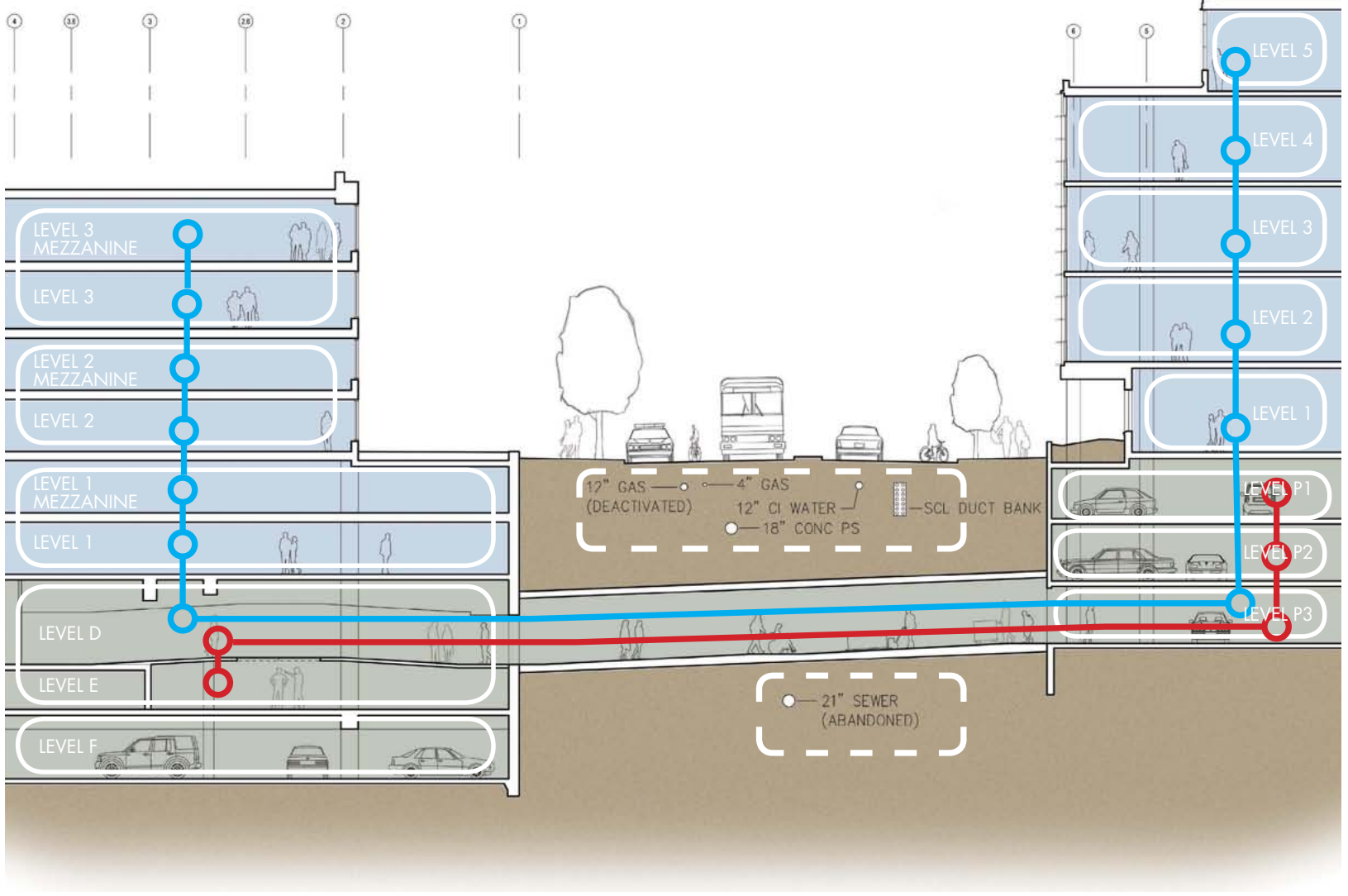

RESEARCHER CIRCULATION

SERVICE CIRCULATION

CAMPUS CONNECTION

ALTERNATE 2

SHARED TUNNEL FOR SERVICE AND RESEARCH

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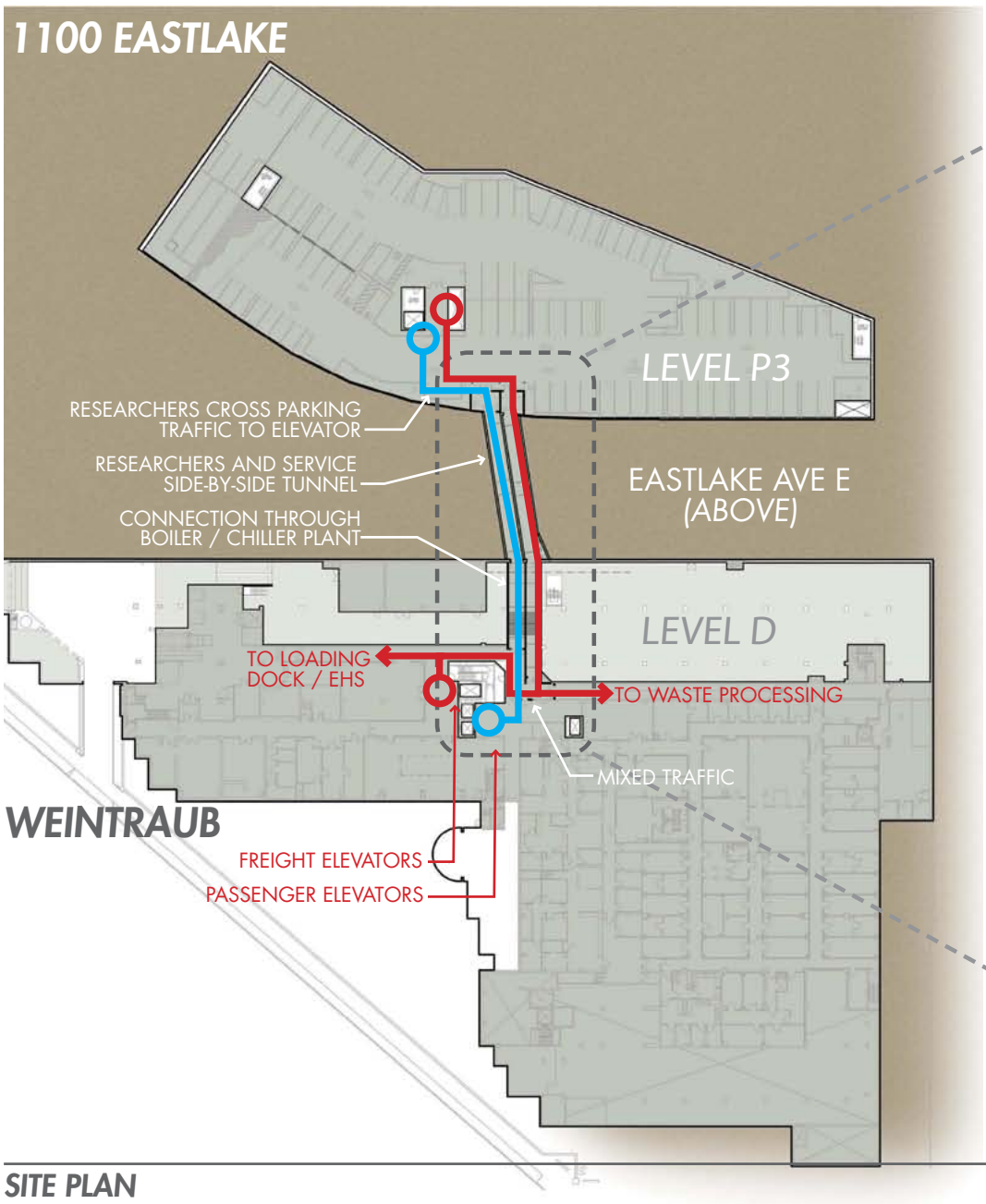

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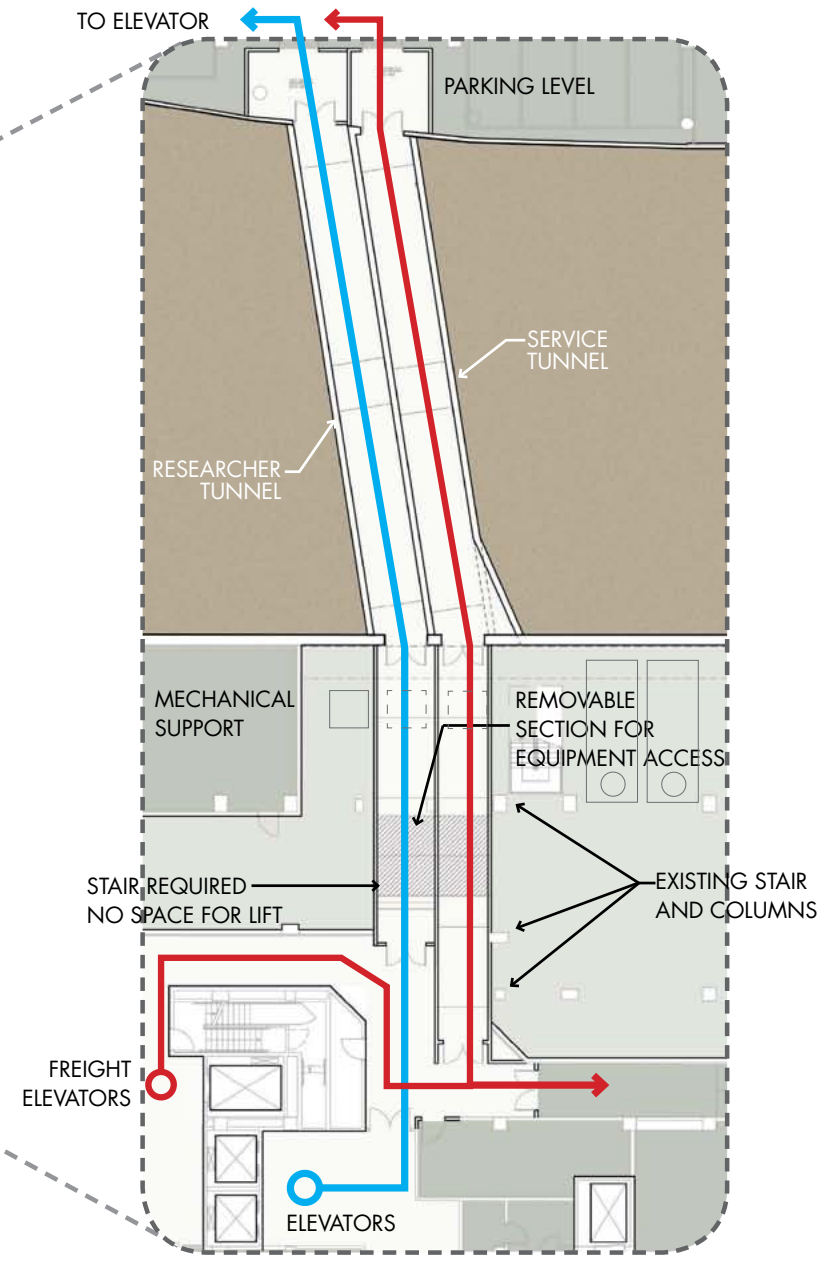

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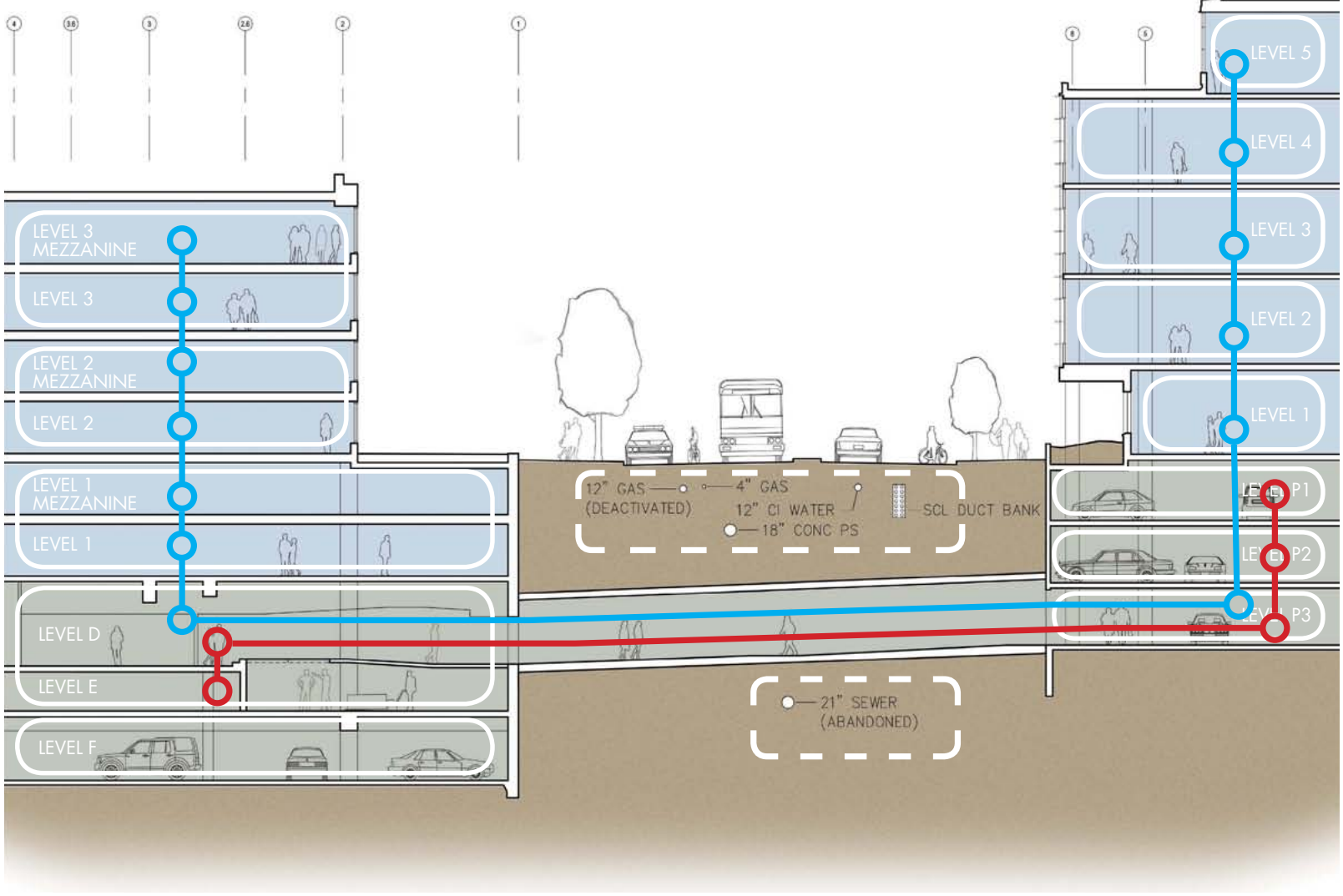

RESEARCHER CIRCULATION

SERVICE CIRCULATION

CAMPUS CONNECTION

ALTERNATE 3

SEPARATE SERVICE + RESEARCH TUNNELS - NORTH OF STAIR

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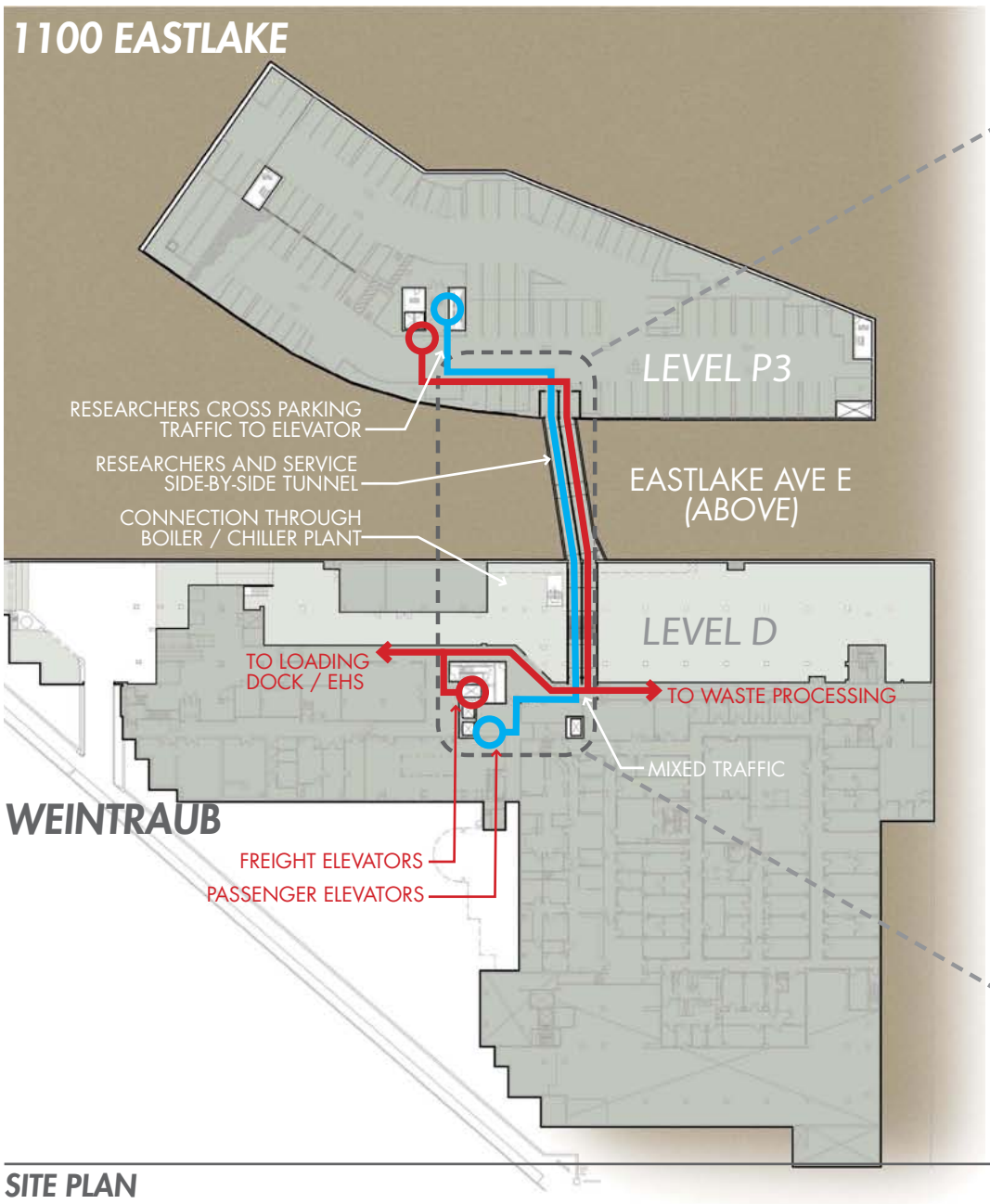

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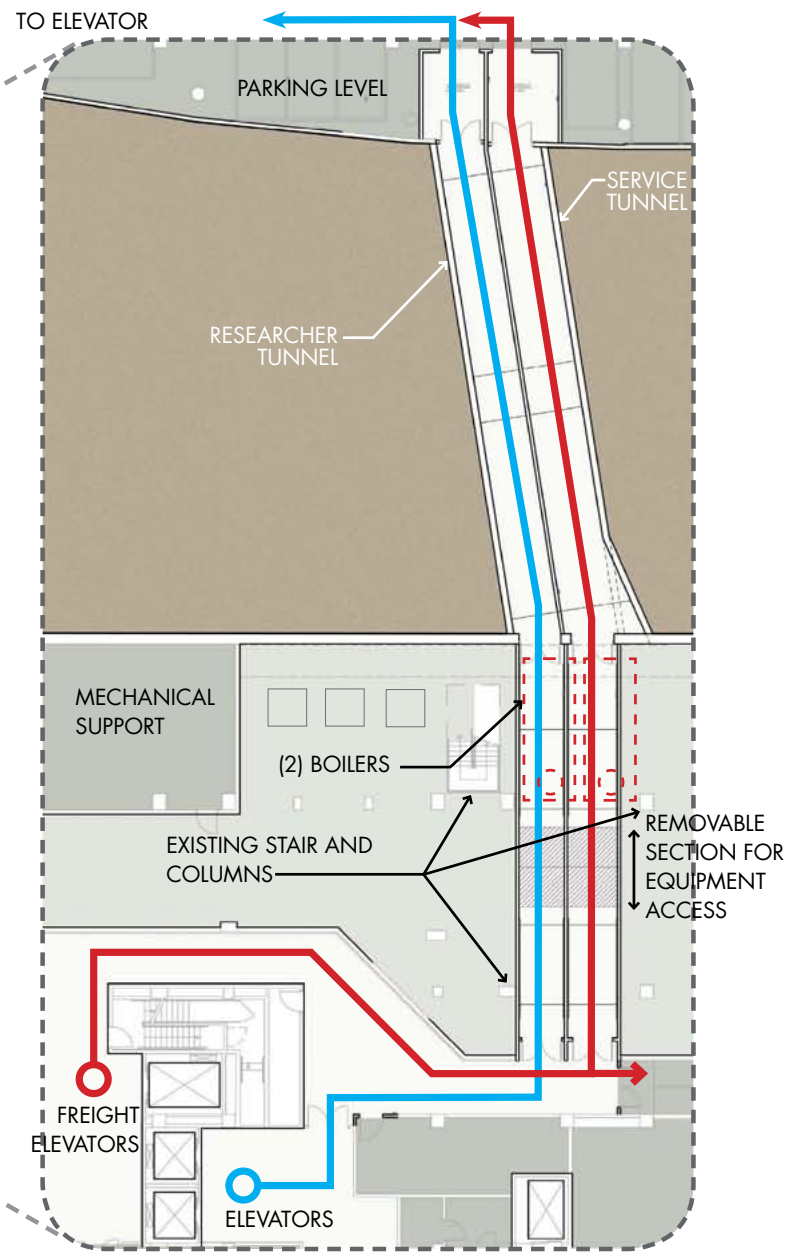

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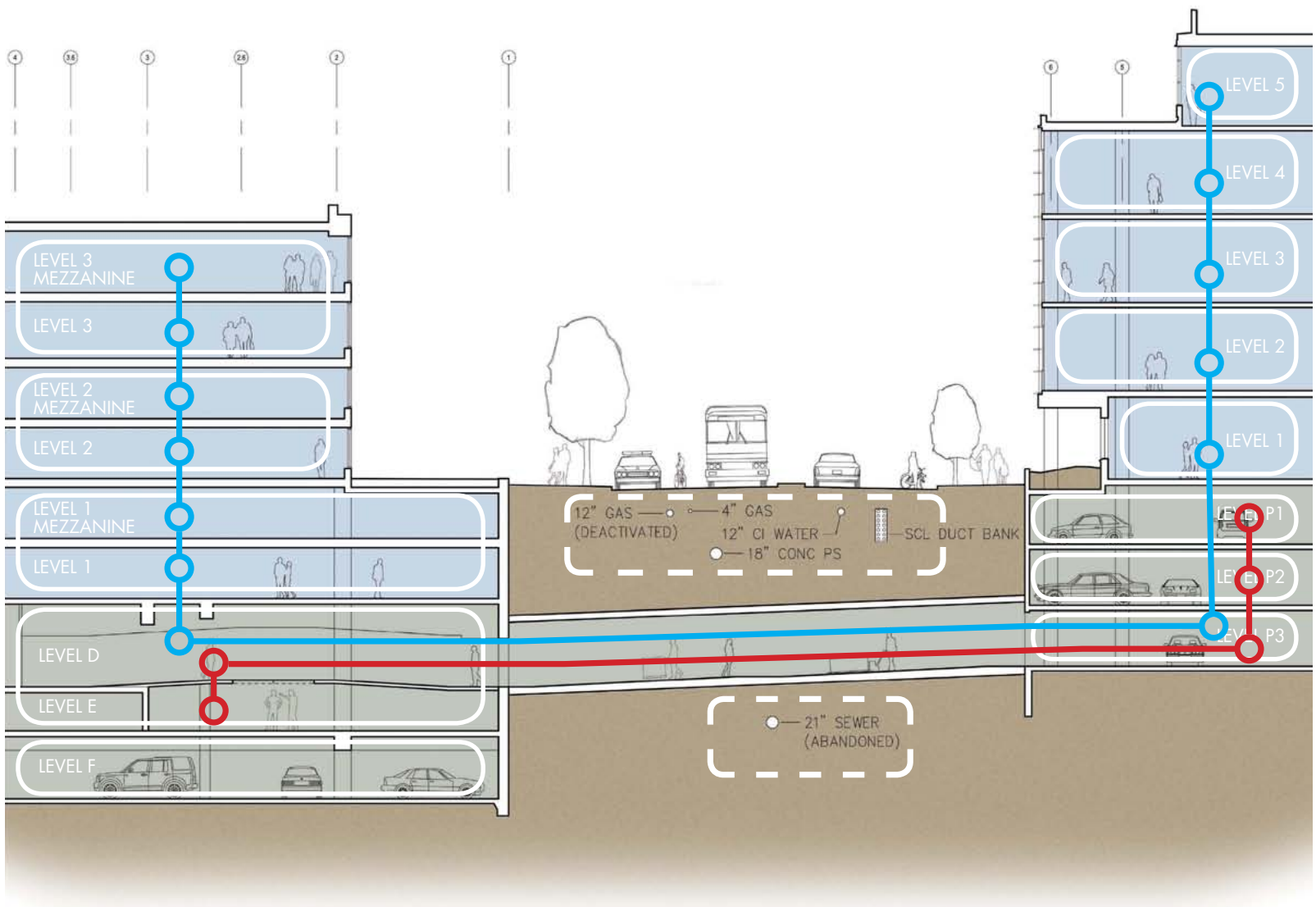

RESEARCHER CIRCULATION

SERVICE CIRCULATION

CAMPUS CONNECTION

ALTERNATE 4

SEPARATE SERVICE + RESEARCH TUNNELS - SOUTH OF STAIR

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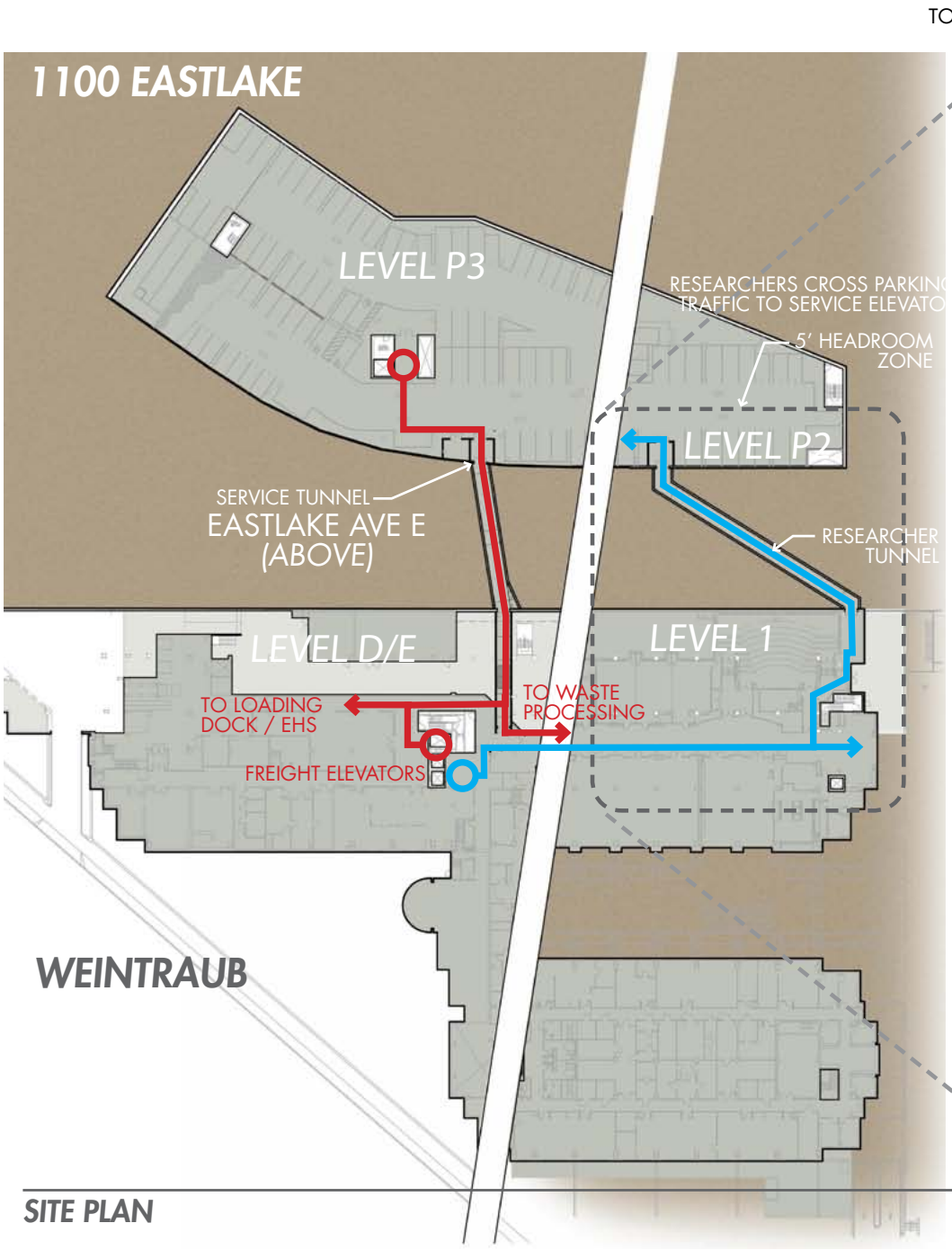

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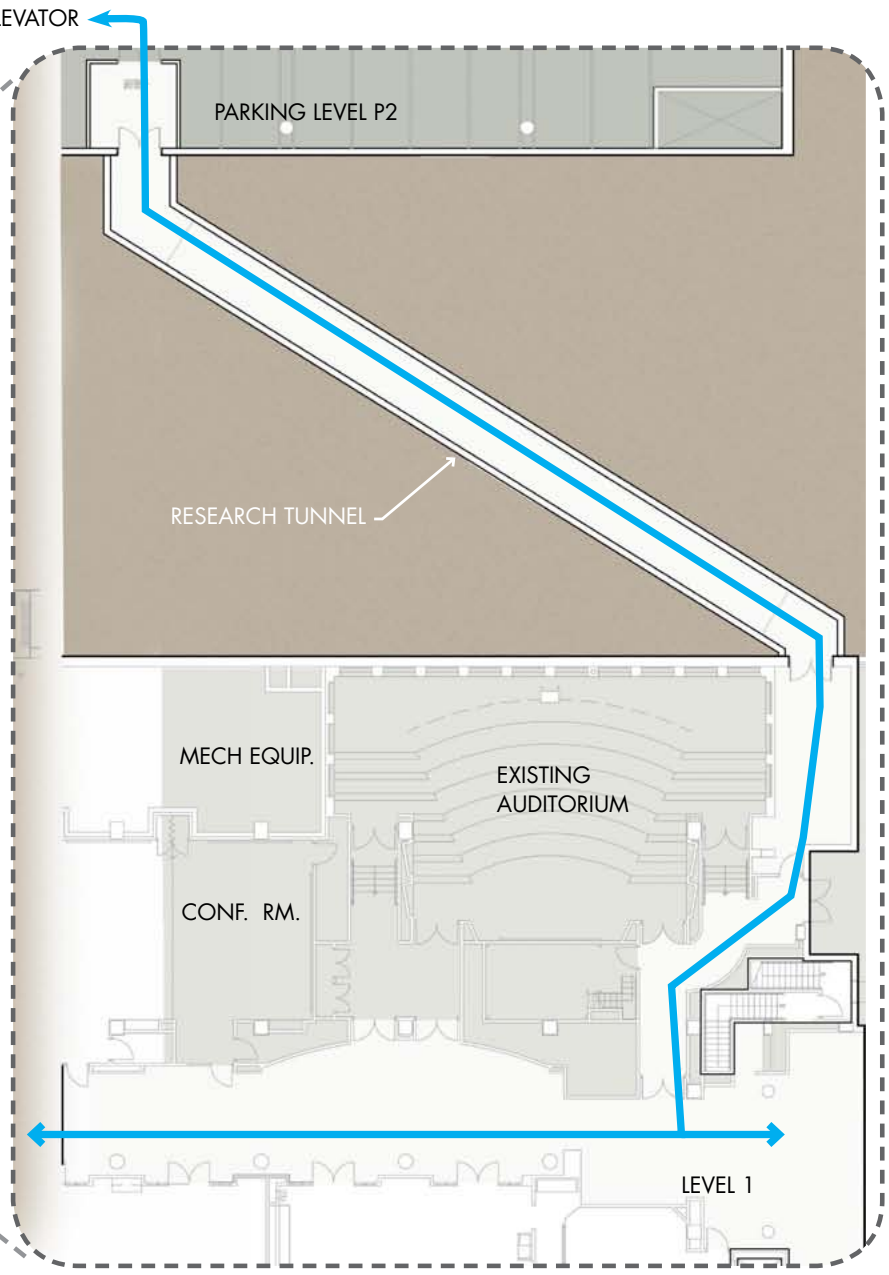

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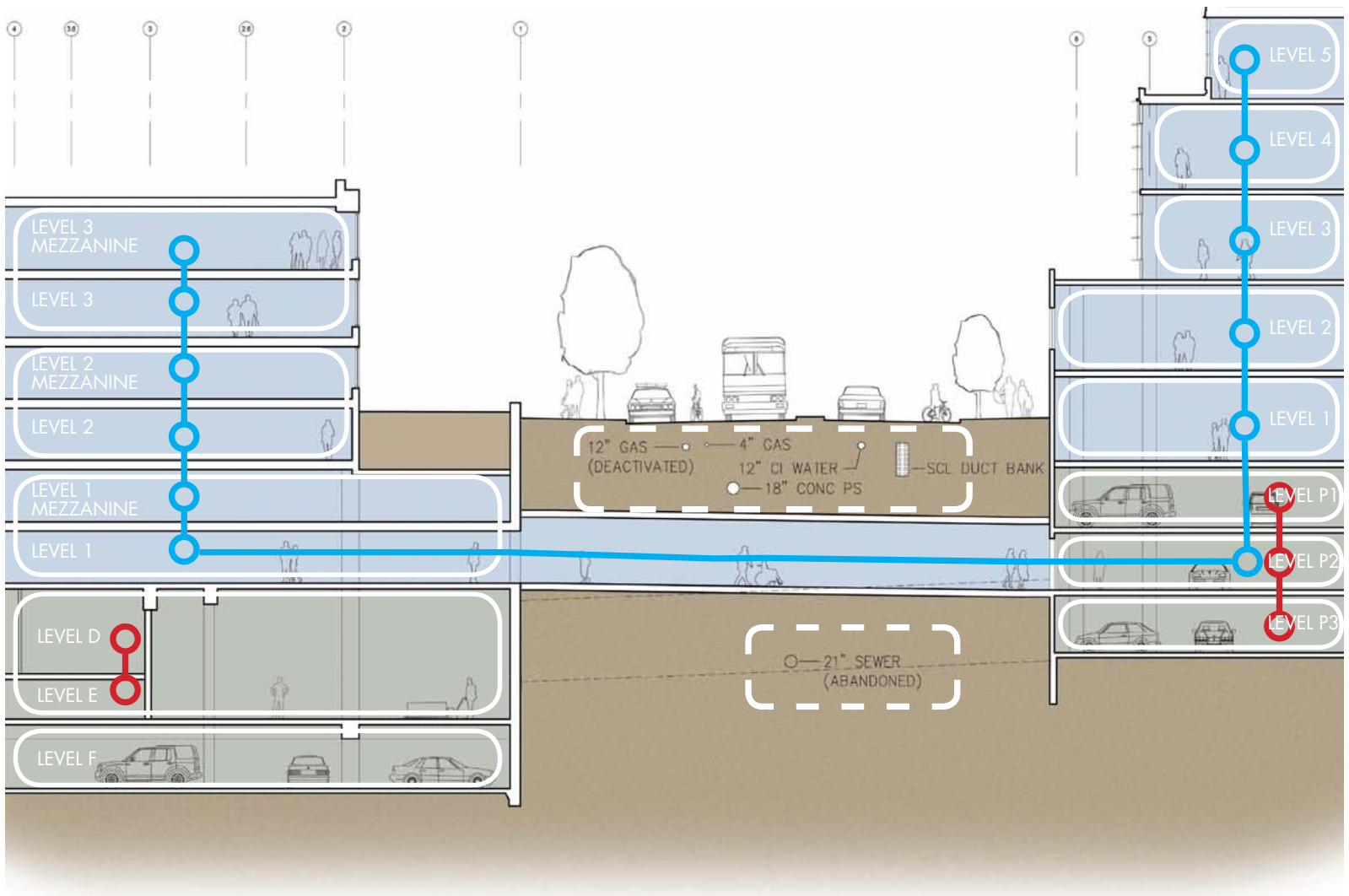

RESEARCHER CIRCULATION

SERVICE CIRCULATION

CAMPUS CONNECTION

ALTERNATE 5

SEPARATE TUNNELS - RESEARCH CONNECTION AT SOUTH WEINTRAUB

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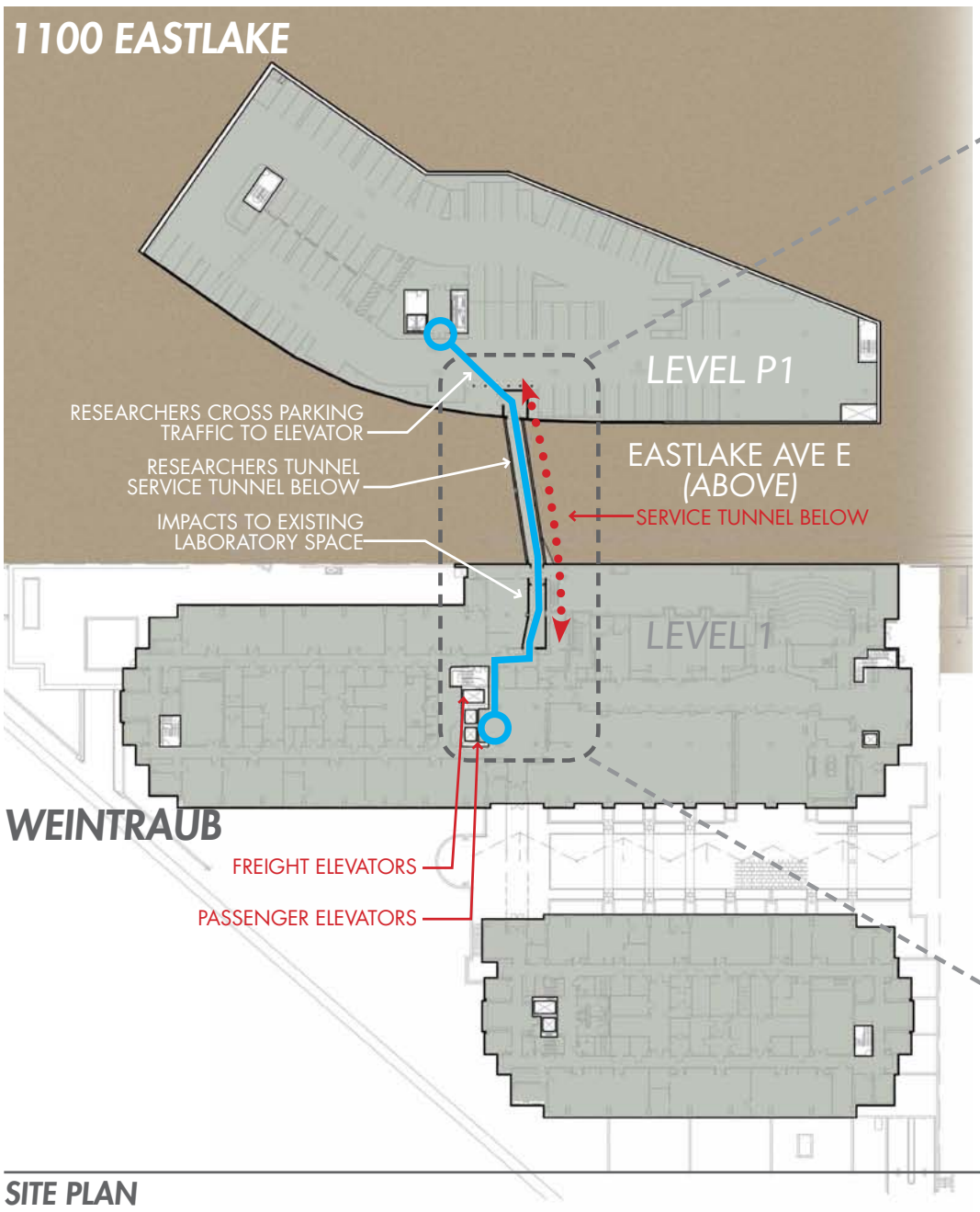

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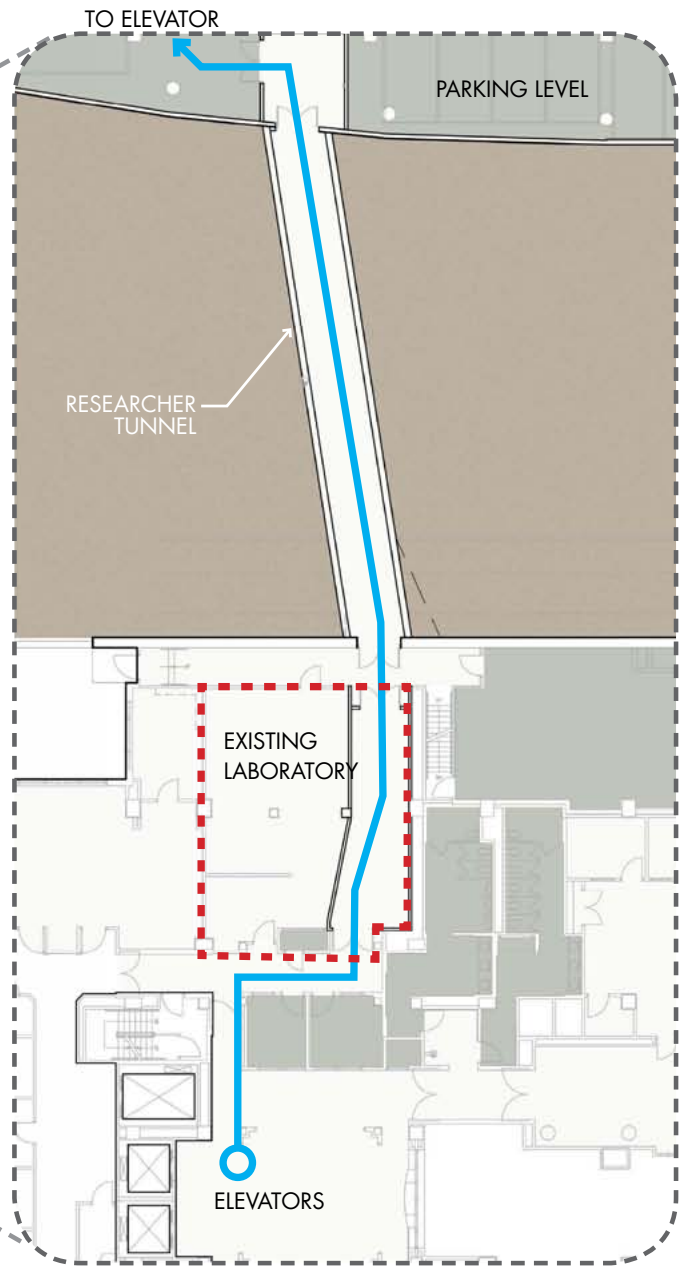

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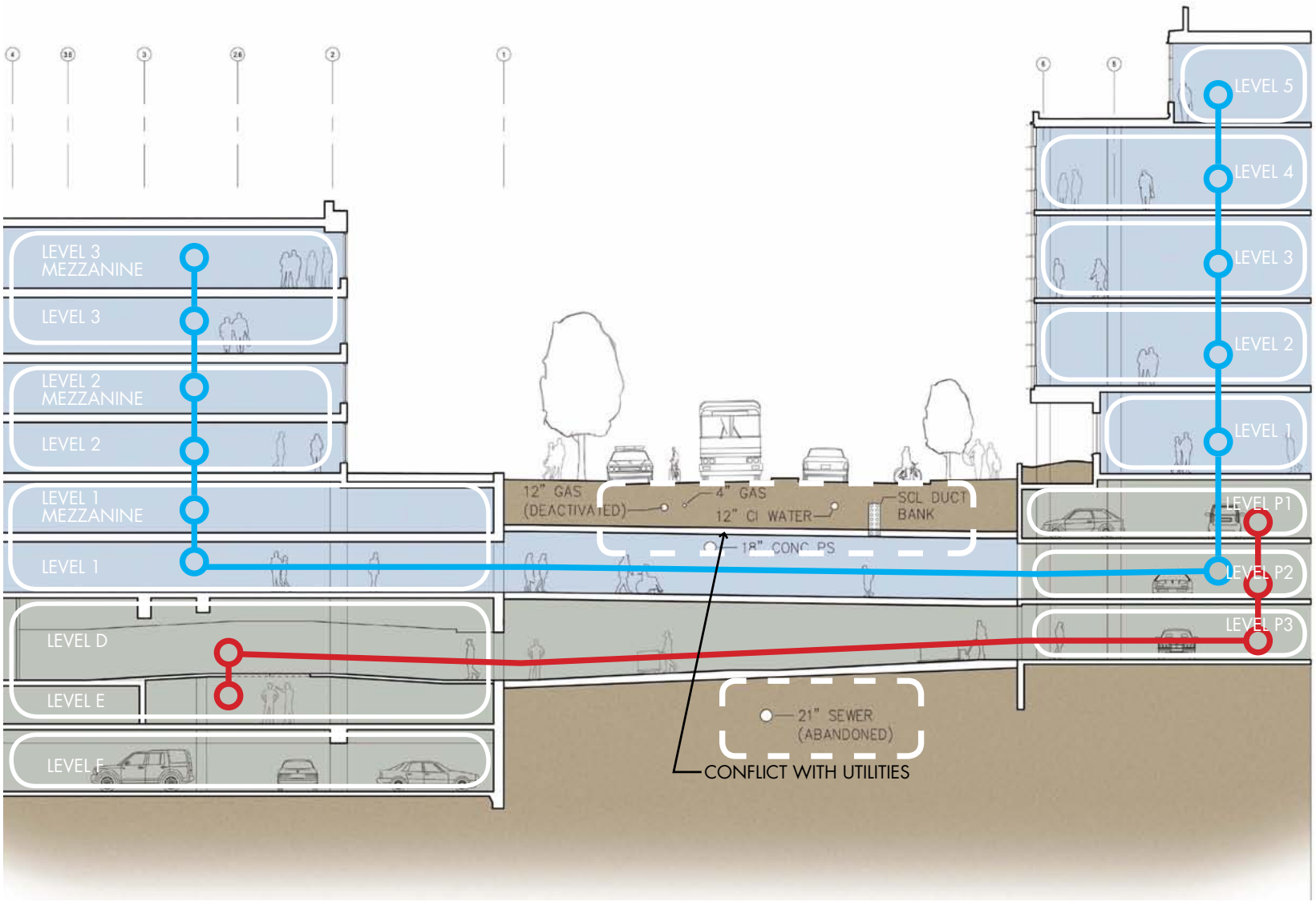

RESEARCHER CIRCULATION

SERVICE CIRCULATION

CAMPUS CONNECTION

ALTERNATE 6

SEPARATE TUNNELS - RESEARCH TUNNEL ABOVE

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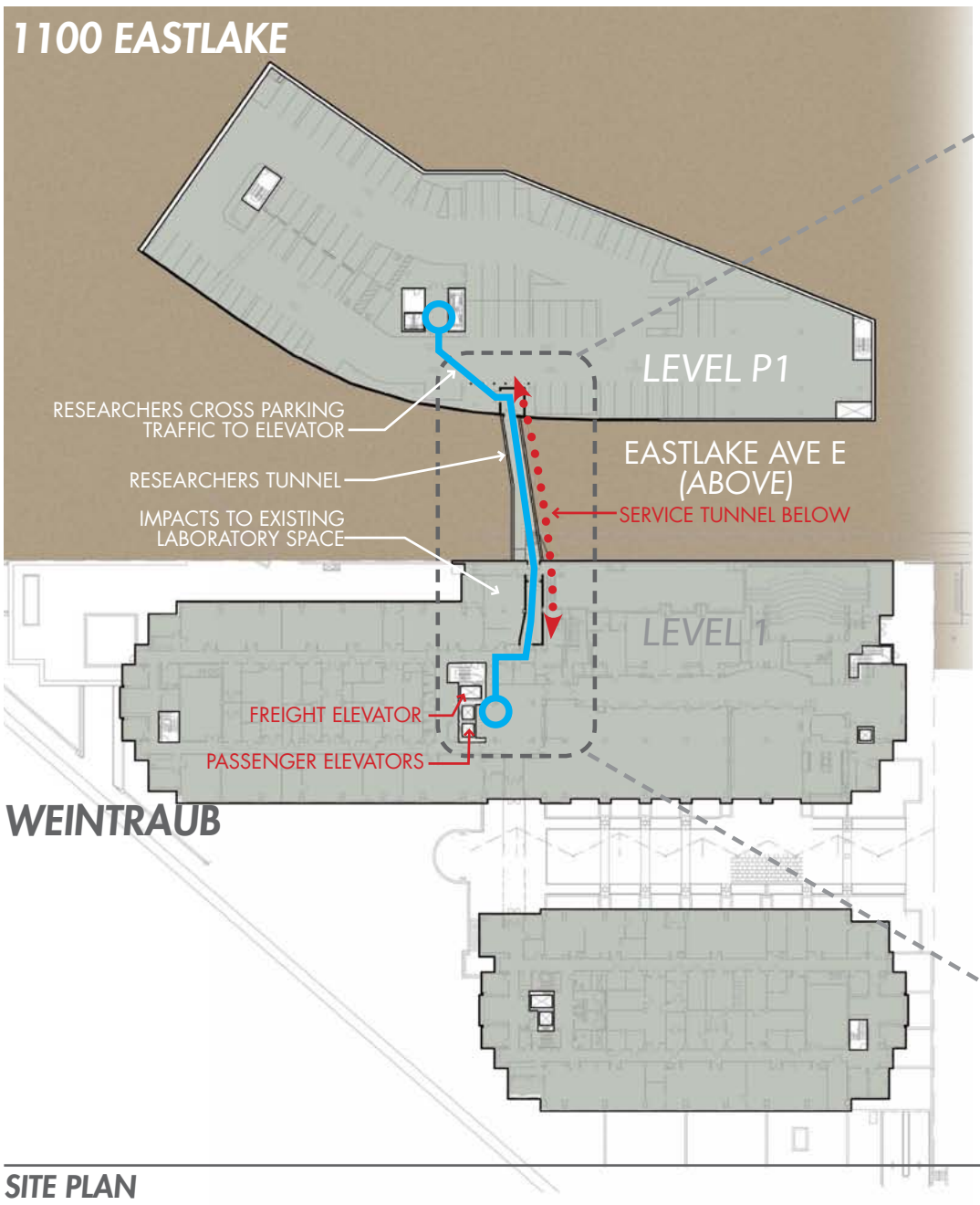

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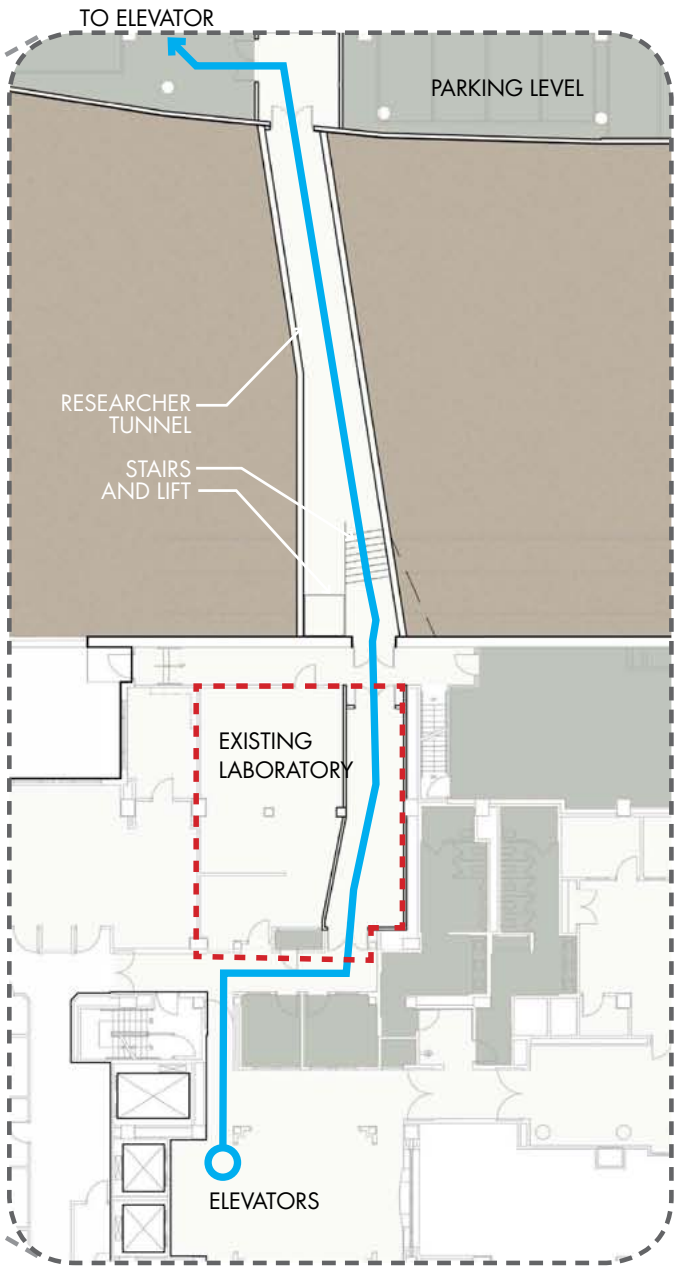

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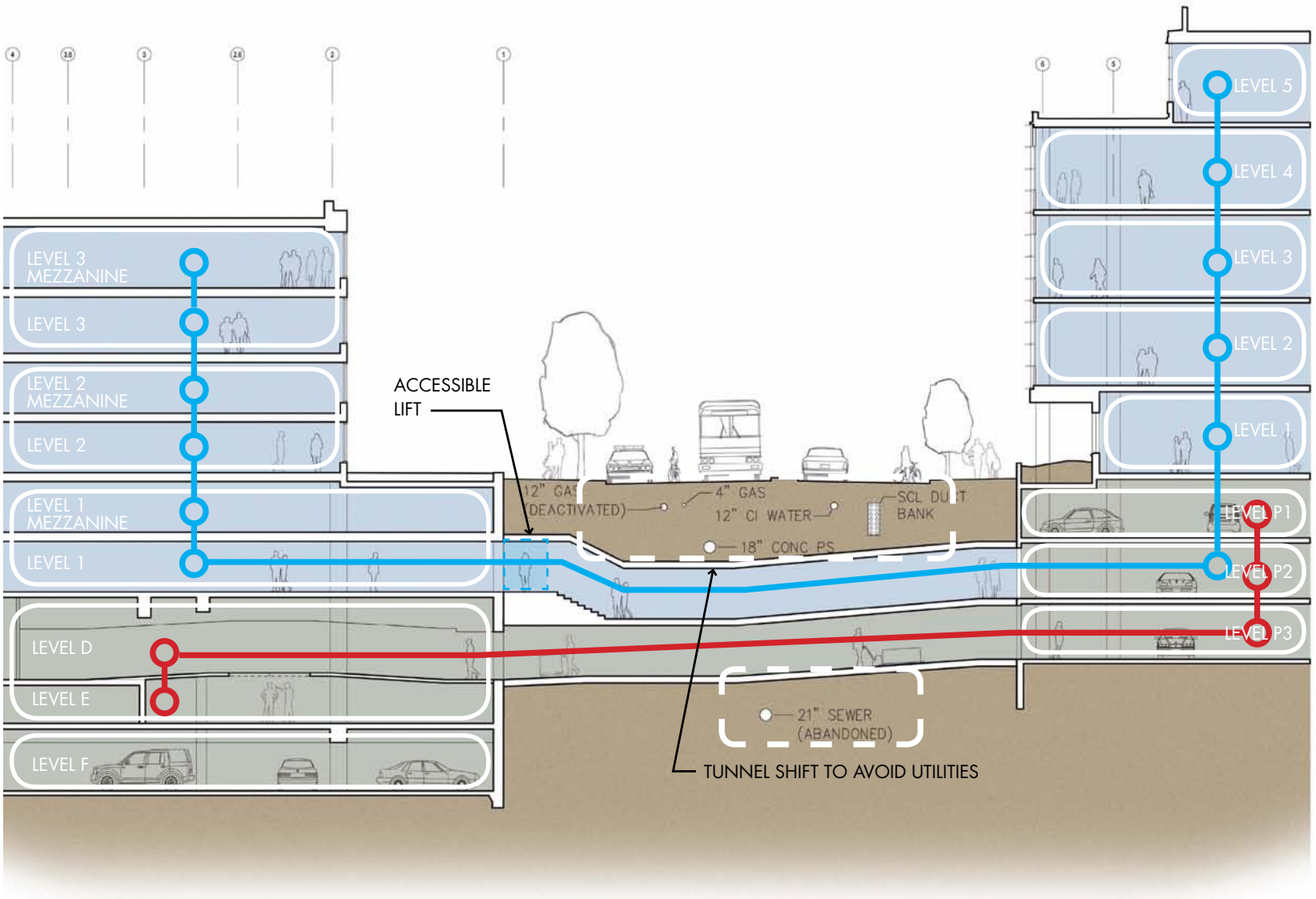

RESEARCHER CIRCULATION

SERVICE CIRCULATION

CAMPUS CONNECTION

ALTERNATE 7

SEPARATE TUNNELS - RESEARCH TUNNEL ABOVE WITH SLOPE

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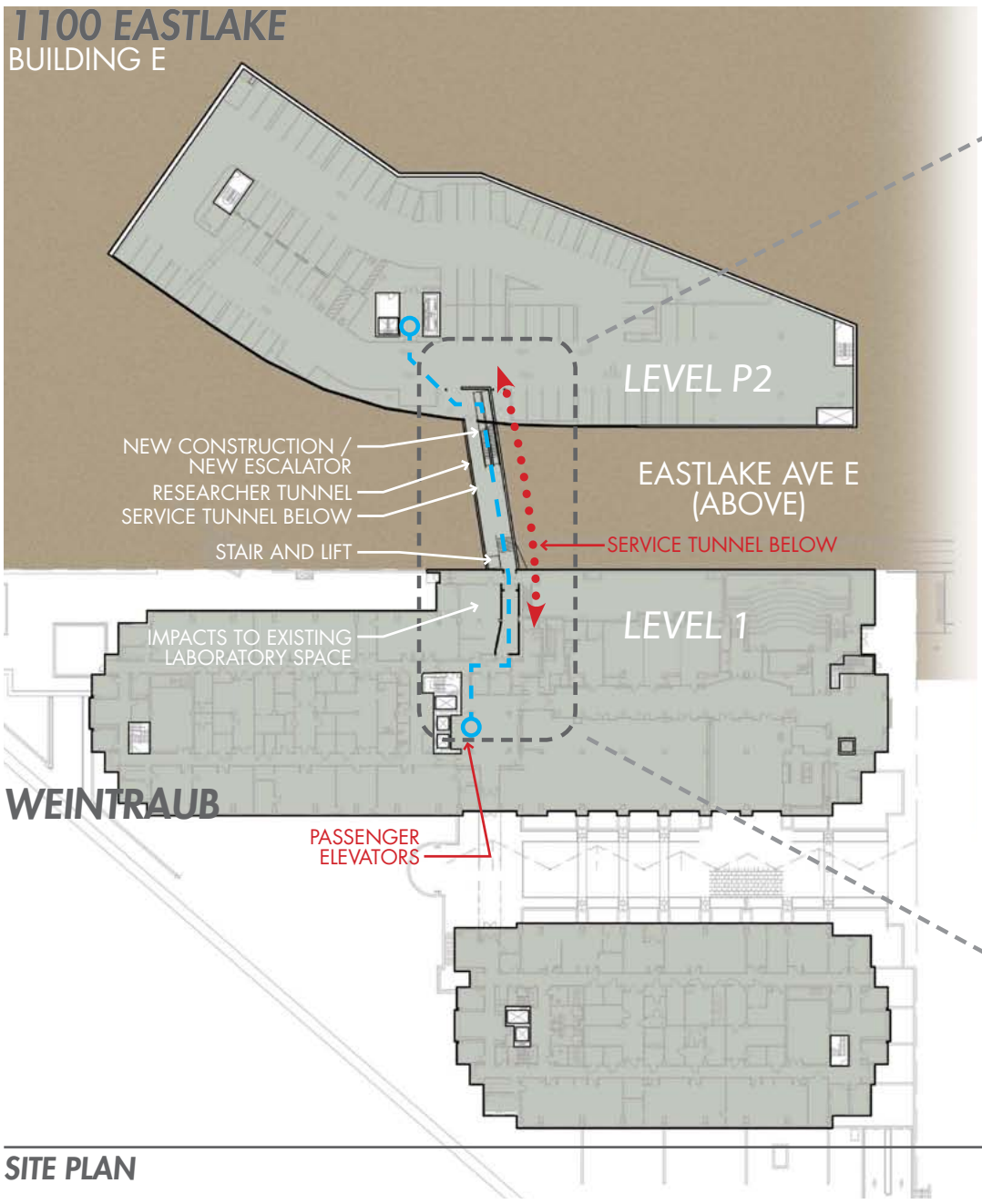

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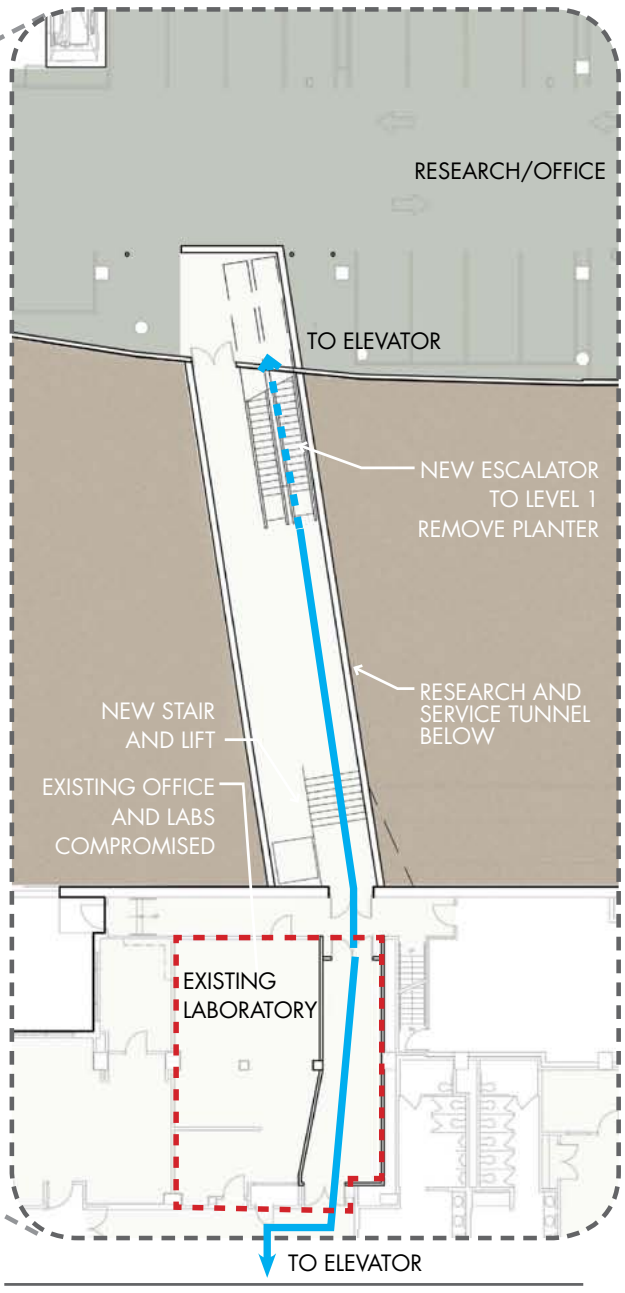

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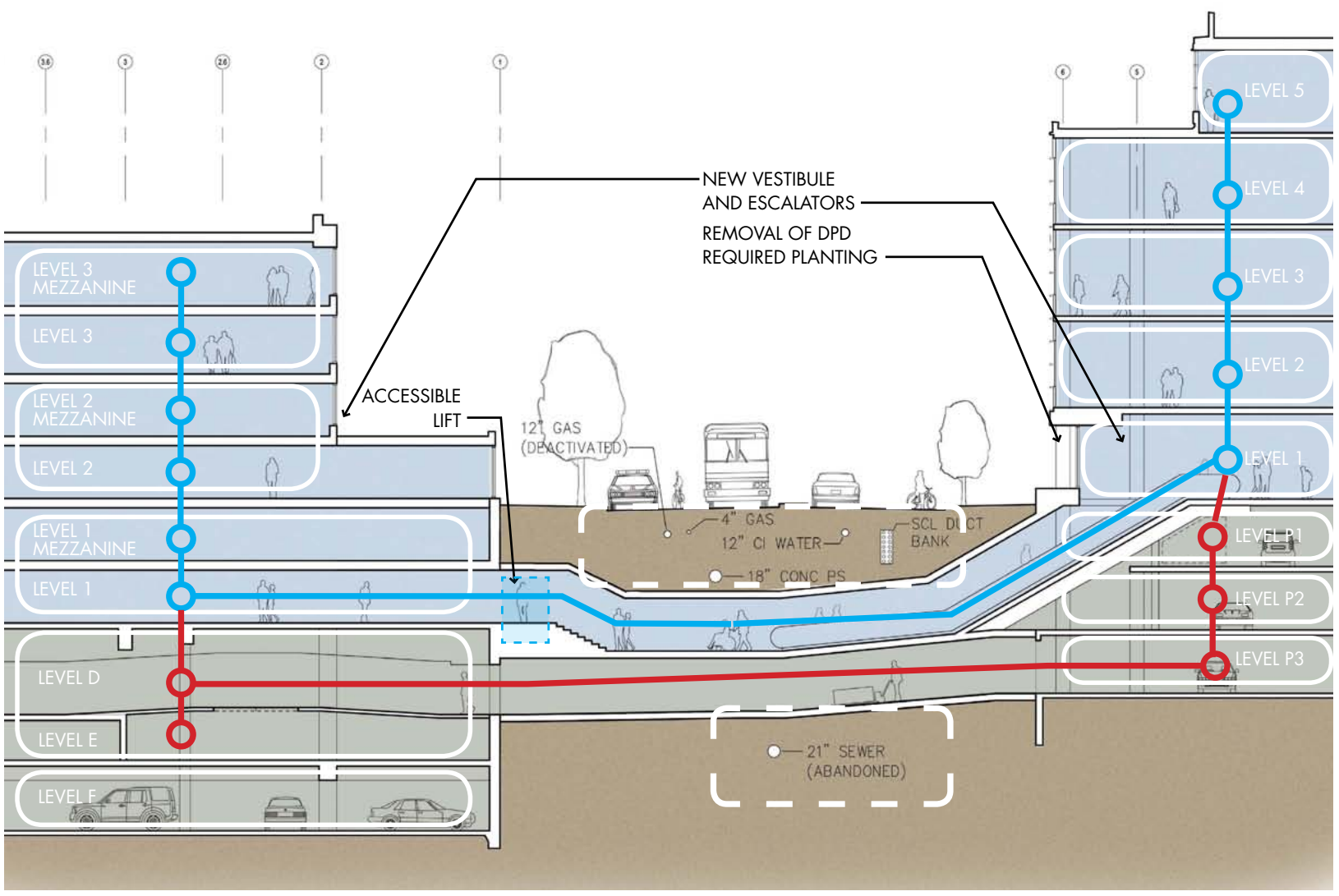

RESEARCHER CIRCULATION

SERVICE CIRCULATION

CAMPUS CONNECTION

ALTERNATE 8

SEPARATE TUNNELS - RESEARCH TUNNEL ABOVE WITH ESCALATOR

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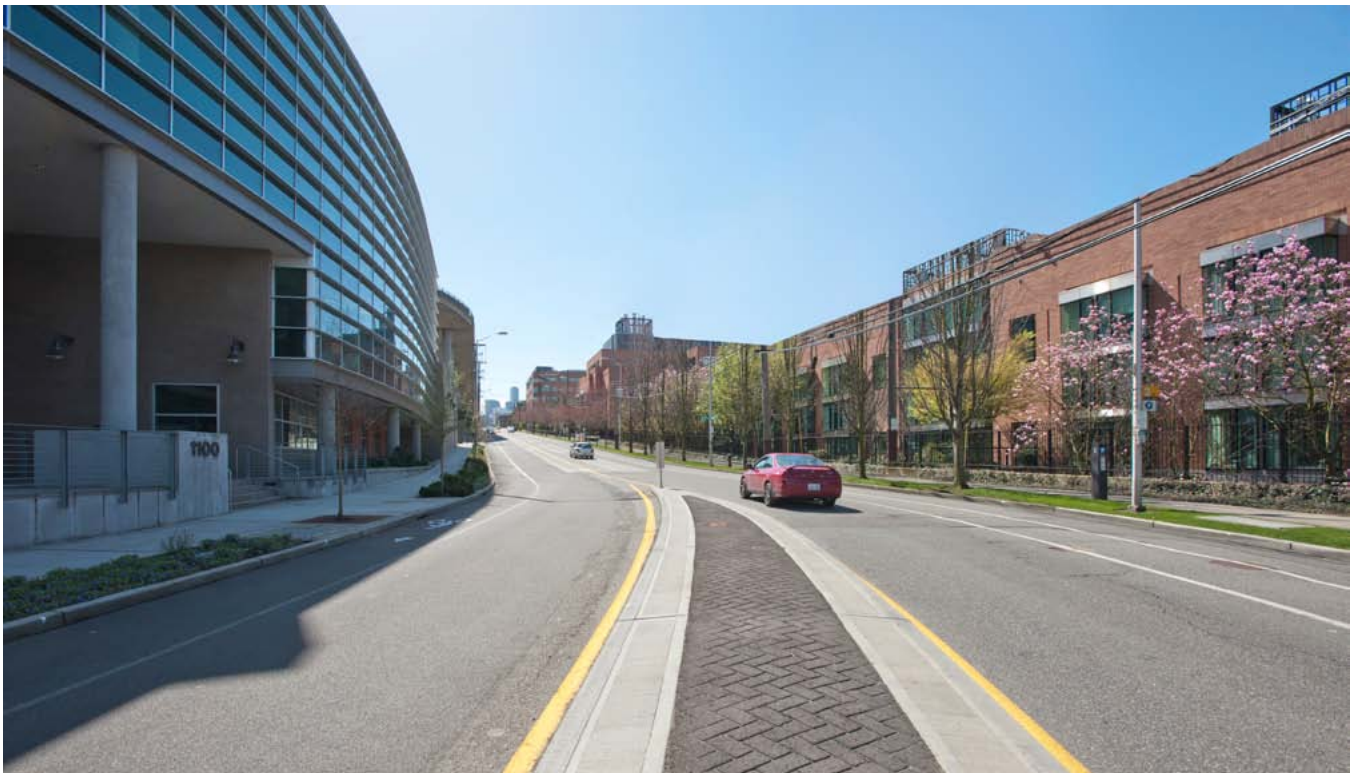
3

DRAWINGS OF SKYBRIDGE SHOWING VISUAL APPEARANCE



EXISTING CONDITION - VIEW LOOKING SOUTH

PROPOSED CONCEPT - SKYBRIDGE, VIEW LOOKING SOUTH

VISUALIZATION

SKYBRIDGE

EXISTING CONDITION - VIEW LOOKING NORTH

PROPOSED CONCEPT - SKYBRIDGE, VIEW LOOKING NORTH

VISUALIZATION

SKYBRIDGE

1

2

3

Images

1.Looking North along East Lake Avenue E.

2. Looking South along East Lake Avenue E.

3. Looking East along East Lake Avenue E.

VISUALIZATION

SKYBRIDGE

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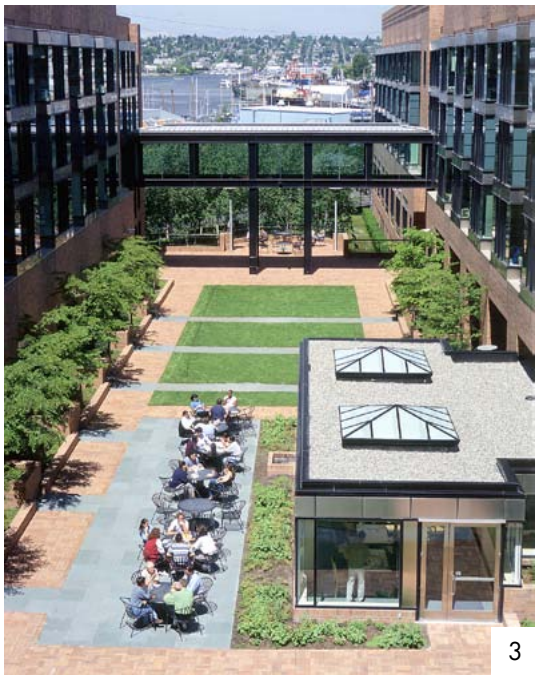
1

2



3

Images:

1. FHCRC phase I existing skybridge
2. FHCRC phase I existing courtyard
3. FHCRC phase I existing courtyard

EXISTING SKYBRIDGES

FHCRC CAMPUS

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PHOTOGRAPHS OF THE LOCATION AND IMMEDIATE SURROUNDING AREA

1

2

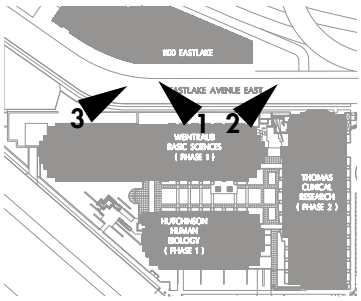
3

Images:

1. View of Eastlake Ave E looking North

2.View from Eastlake Ave E. at I5 Ramping and Lakeview Blvd E. overpass south of 1100 Eastlake

3. East Lake Avenue E. looking South.



EXISTING CONDITIONS

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Description:

Photos shows views looking North and South on East Lake Avenue E. as a pedestrian wanting to cross East Lake Avenue E. at the 1100 East Lake site.

4

5

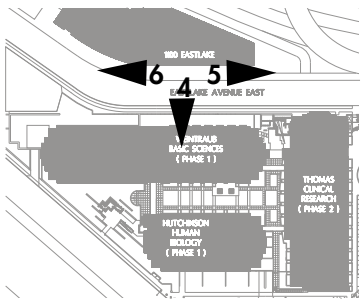
Images:

4. View Looking West at Weintraub Building

5. View Looking South at 1100 Building Entry

6. View Looking North at 1100 Building Entry

6



EXISTING CONDITIONS

CAMPUS CONNECTION

7

8

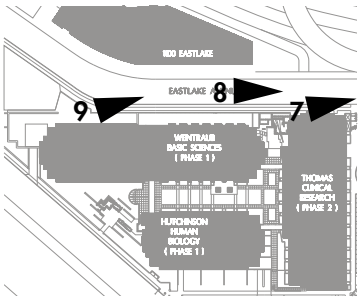
9

Images:

7.Eastlake Ave E. at I5 Ramping

8. Eastlake Ave. E. Looking South

9. East Lake Ave E. Looking South at 1100 Building



EXISTING CONDITIONS

CAMPUS CONNECTION

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5
ENVIRONMENTAL CHECKLIST

ENVIRONMENTAL CHECKLIST

for the proposed

Fred Hutchinson Cancer Research Center – 1100 Eastlake Skybridge Project

prepared for

City of Seattle Department of Transportation

October 2011

EA | Blumen

--PREFACE--

The purpose of this Environmental Checklist is to identify and evaluate environmental impacts that could result from the *Proposed Action* and to identify measures to mitigate those impacts. The *Proposed Action* is the development of a skybridge over Eastlake Avenue E that would span from the Fred Hutchinson Cancer Research Center's Weintraub Basic Sciences Division building to the recently acquired 1100 Eastlake building.

The State Environmental Policy Act (SEPA)[1] requires that all governmental agencies consider the environmental impacts of a proposal before the proposal is decided upon. This Environmental Checklist has been prepared in compliance with SEPA; SEPA Rules, effective April 4, 1984, as amended (Chapter 197-11, Washington Administrative Code); and, the Seattle City Code (25.05), which implements SEPA.

This Environmental Checklist is intended to serve as SEPA review for the Fred Hutchinson Cancer Research Center (FHCRC) – 1100 Eastlake Skybridge Project. Probable, significant environmental impacts associated with project-related activities are disclosed in this document. Analysis contained in this Environmental Checklist is based on plans for the project, which are on-file with the Seattle Department of Transportation. While not construction-level detail, the schematic plans accurately represent the eventual size, location and configuration of the skybridge and are considered adequate for analysis and disclosure of environmental impacts.

This Environmental Checklist is organized into three major sections. *Section A* of the Checklist (starting on page 1) provides background information concerning the *Proposed Action* (e.g., purpose, proponent/contact person, project description, project location, etc.). *Section B* (beginning on page 12) contains the analysis of environmental impacts that could result from implementation of the proposed project, based on review of major environmental parameters. This section also identifies possible mitigation measures. *Section C* (page 30) contains the signature of the proponent, confirming the completeness of this Environmental Checklist.

Project-relevant analyses that served as a basis for this Environmental Checklist include: the *Greenhouse Gas Emissions Worksheet* (EA|Blumen, 2011); *Pedestrian Crossing Analysis* (Heffron, 2011); and, a discussion of SMC 15.64.050B which identifies the elements considered for each skybridge permit application and how these elements relate to information provided in this SEPA Checklist (EA|Blumen, 2011). This supplementary data is included in this Environmental Checklist as **Appendices A, B** and **C,** respectively.

[1] Chapter 43.21C. RCW

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ENVIRONMENTAL (SEPA) CHECKLIST

PURPOSE

The State Environmental Policy Act (SEPA), Chapter 43.21 RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. The purpose of this Environmental Checklist is to provide information to help identify impacts from the proposal (and to reduce or avoid impacts, if possible) and to help the City of Seattle Department of Transportation (SDOT) to make a SEPA threshold determination.

A. BACKGROUND

1. Name of Proposed Project:

1100 Eastlake Skybridge Project

2. Name of Applicant:

Fred Hutchinson Cancer Research Center (FHCRC)

3. Address and Phone Number of Applicant and Contact Person:

Applicant:
Fred Hutchinson Cancer Research Center (FHCRC)
P.O. Box 19024
Seattle, WA 98109
206-667-5000

Applicant's Contact Person:
Dave Neal
ZGF Architects LLP
925 Fourth Avenue, Suite 2400
Seattle, WA 98104
206-623-9414

4. Date Checklist Prepared

October 28, 2011

5. Agency Requesting Checklist

City of Seattle Department of Transportation
P.O. Box 34996
Seattle, WA 98124-4996

6. Proposed Timing or Schedule (including phasing, if applicable):

Construction of the proposed skybridge project is anticipated to begin in early 2013 and last for approximately 6 months.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No future plans for further development of this site are proposed.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal:

The *Fred Hutchinson Center Research Center, Southeast Lake Union Campus Environmental Impact Statement (EIS)* that analyzed the 1989 *Fred Hutchinson Center Research Center Master Plan* was prepared and issued in 1989. The 1989 EIS analyzed the development of 1.1 million sq. ft. of building area over an approximately 10.3 acre area. This EIS analyzed the development of the Weintraub Basic Sciences building and six others.

A *Supplemental Environmental Impact Statement* was prepared and issued on April 17, 2008, to analyze an update to the 1989 *Fred Hutchinson Cancer Research Center Master Plan* (2008). The 2008 updated *Master Plan* described the future development required to meet anticipated future research and laboratory space needs through 2026. The Proposed Action included the addition of up to 7 new buildings totaling approximately 1,055,000 GSF of new development over the 20-year buildout period.

A *SEPA Environmental Checklist* was prepared and approved on October 3, 2011, for a proposed change of use for the 1100 Eastlake building from office and retail to office and research laboratory for Fred Hutchinson Cancer Research Center.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain:

Other than permits associated with tenant improvements within the 1100 Eastlake Avenue Building, no known applications are currently pending for governmental approvals of other proposals that could affect the property covered by this proposal.

10. List any government approvals or permits that will be needed for your proposal, if known:

Local Agencies

City of Seattle – Department of Transportation
- Street Use Permits (temporary—construction-related)
- Street Use Term Permit (long-term ROW crossing).

City of Seattle – Department of Planning and Development
- Master Use Permit
- Building Permits
- Mechanical Permits (if needed)
- Electrical Permits
- Occupancy Permits

11. Give a brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

Background

Fred Hutchinson Cancer Research Center (FHCRC) researches and develops treatments for a variety of cancers, blood disorders, genetic and infectious diseases and immune deficiencies.

In 1988, FHCRC established the South Lake Union campus, as shown in **Figure 1**. By locating all five research divisions on one campus the FHCRC created a collaborative environment by bringing together scientists from many different disciplines.

The Vaccine and Infectious Disease Division (VIDD) was established by FHCRC--first as an Institute in 2007 and as a Scientific Division of the Center in 2010--to address the growing need for treatment and prevention strategies for infectious diseases worldwide.

The FHCRC recently acquired the 1100 Eastlake building located across Eastlake Avenue E from the main FHCRC campus (as shown in **Figure 2**). The VIDD will occupy the 1100 Eastlake building. This division currently occupies leased space some distance from the FHCRC.

A critical element of the FHCRC's research strategy is creating numerous opportunities for interaction between researchers in different disciplines. This allows for the sharing of ideas and the applying new techniques across all of the Center's divisions. Such connectivity is currently an issue given VIDD's location some distance away. Currently, the 1100 Eastlake building is isolated from the campus, separated by Eastlake Avenue E, a major traffic arterial. Relocation of the VIDD into the 1100 Eastlake building would allow this division to become an integrated part of the existing FHCRC campus, if safe and effective pedestrian connectivity is created.

Purpose of the Proposal

The proposed skybridge is intended to safely and effectively connect scientists and other staff as they move back and forth between research and activities located within 1100 Eastlake building and in the rest of the FHCRC campus. FHCRC anticipates up to 1,000 scientist/employee trips daily, at all hours of the day and night. VIDD operates nearly around the clock because of collaborations in countries across many time zones.

Integration of the VIDD into the campus as a whole is critical to the success of the FHCRC mission. The vision for the campus established in the *FHCRC Master Plan* (2008) is to foster collaboration between scientists across divisional boundaries through an integrated campus design. The *Master Plan* for the FHCRC Campus is shown in **Figure 3**. Each of the research buildings on the *Master Plan* is connected with the others via a safe and effective network of pedestrian connections (including several skybridges) and the proposed skybridge would represent a continuation of this system.

Proposed Skybridge

The proposed project is the approval of a Skybridge Permit by the City of Seattle and the development of a skybridge across Eastlake Avenue E that would connect the existing FHCRC Weintraub Basic Sciences building to the newly acquired 1100 Eastlake building. **Appendix C** provides a list of the twelve elements considered when reviewing a Skybridge Permit application and an analysis of the relationship of these elements to this SEPA checklist.

The proposed skybridge is intended to create cohesion and connectivity of the 1100 Eastlake building with other portions of the FHCRC campus. For safety and security purposes, the proposed skybridge would be accessible to FHCRC scientists, employees and visitors but would not be accessible to the general public.

The skybridge would be approximately 104 feet long, 10 feet wide and 13 feet tall. The height of the base of the skybridge would be approximately 24 ft. 4 inches above the roadway, as shown in **Figure 4,** and would provide adequate clearance for vehicular traffic. The bridge itself would be constructed of steel and glass materials, similar to other existing campus skybridges, as shown on **Figures 5** and **6**. The design and features of the skybridge would comply with applicable provisions of the Seattle Building Code and ADA guidelines.

Construction of the skybridge would require portions of the exterior building envelopes of both buildings to be removed and remodeled to accept the bridge at both ends. Interior remodeling would be required to accommodate the entrances to the bridge in both buildings.

Installation of the proposed skybridge would require relocation of the existing overhead electrical lines adjacent to the Weintraub Basic Sciences building to a below-grade trench. Trenching activities would require the removal of landscaping and street streets. With the exception of one tree located in the path of the skybridge, any landscaping and trees disturbed by construction activities would be replaced consistent with applicable City of Seattle requirements.

Public benefits would be provided with the proposal and could potentially include features such as sidewalk and landscaping improvements adjacent to the Weintraub side of Eastlake Avenue E; additional lighting elements as part of the Fairview & Fairview project; and, additional wayfinding features near the campus and in the South Lake Union neighborhood. The specific public benefits package would be negotiated between FHCRC and the City of Seattle prior to permit approval for the proposed skybridge.

Alternatives Considered

FHCRC considered the following alternatives to a new skybridge.

> *Alternative 1: New Pedestrian Crosswalk* – FHCRC analyzed the option of developing an at-grade crosswalk between the 1100 Eastlake building and the Weintraub building. To date, the Seattle Department of Transportation has indicated that they will not approve a new crosswalk at this location due to safety concerns. An August 12, 2011 memorandum from Brian Kemper, Acting City Traffic Engineer, states that SDOT

considers an unsignalized crossing at 1100 Eastlake infeasible.

Alternative 2: Shared Tunnel for Service and Research – As a component of a pending request to SDOT, FHCRC explored the potential for a service tunnel to connect the 1100 Eastlake building and the Weintraub building that is intended for transportation of waste materials and other building activities. FHCRC analyzed the option of utilizing the service tunnel for both transportation of waste materials and as a below-grade pedestrian walkway. The service tunnel was determined to be neither a safe nor an effective mode for connecting scientists and staff from building to building. It was determined to be unsafe practice to commingle the waste/supply stream with scientist/staff circulation and could cause injury to persons.

Alternate 3: Separate Service and Research Tunnels North of Stair - FHCRC analyzed the option of widening the proposed service tunnel to include two passageways, one for waste transportation/service and one for scientists/employees. It was determined there is insufficient space available in the Weintraub building to accommodate a tunnel to the north of the proposed Service Tunnel. in addition, there is large mechanical equipment in the tunnel path that further renders this option infeasible.

Further, the route employees would be required to take from the 1100 Eastlake building to the Weintraub building via the service tunnel (take an elevator to the basement on the west side of Eastlake, walk through the tunnel to the basement garage on the east side of Eastlake, locate an additional elevator, and take that elevator to the level of their appointment) would be undesirable. The inconvenient, undesirable route would likely prompt staff to dart across Eastlake Avenue E at an unmarked area and risk personal injury and accidents.

Alternate 4: Separate Service and Research Tunnels South of Stair – Feasibility issues for this option would be similar to Alternative 3 above. It was determined that there was insufficient space available to accommodate a tunnel to the south of the proposed service tunnel due to mechanical equipment in the tunnel path.

Alternate 5: Separate Service and Research Tunnels – Research Connection at South Weintraub: Construction of a service tunnel and research tunnel connecting to the south side of the Weintraub building is considered infeasible because the research tunnel would require open-cut construction that has been stated to be undesirable to SDOT.

Alternate 6: Separate Service and Research Tunnels - Research Tunnel Above: It was determined that there is insufficient space available to accommodate a research tunnel above the proposed service tunnel due to existing utilities located in the tunnel path. SPU stated that they would not allow these utilities to be relocated and would require open-cut construction that has been stated to be undesirable to SDOT.

Alternate 7: Separate Service and Research Tunnels – Research Tunnel Above Slopes Below the Street Utilities: Similar to Alternate 6, construction of a service tunnel and research tunnel that slopes below the street utilities is infeasible because it would not allow FHCRC to provide ADA access to the 1100 Eastlake building. This configuration would require open-cut construction that has been stated to be undesirable to SDOT.

Alternate 8: Separate Service and Research Tunnels – Research Tunnel Above with Escalator: Similar to Alternates 6 and 7, construction of a service tunnel and researcher tunnel with escalators is infeasible because it would not allow FHCRC to provide ADA access to the 1100 Eastlake building. This configuration would require open-cut construction that has been stated to be undesirable to SDOT. Further, this configuration would result in a loss of existing FHCRC program (laboratory) space.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any. If a proposal would occur over a range of area, provide the range or boundaries of the site(s).

The Fred Hutchinson Cancer Research Center 1100 Eastlake Skybridge Project site is located in Seattle's South Lake Union Neighborhood, as shown in **Figure 1**. The proposed location for the new skybridge is on Eastlake Avenue E and would span between the FHCRC Weintraub building and the 1100 Eastlake building, as shown on **Figure 2.**

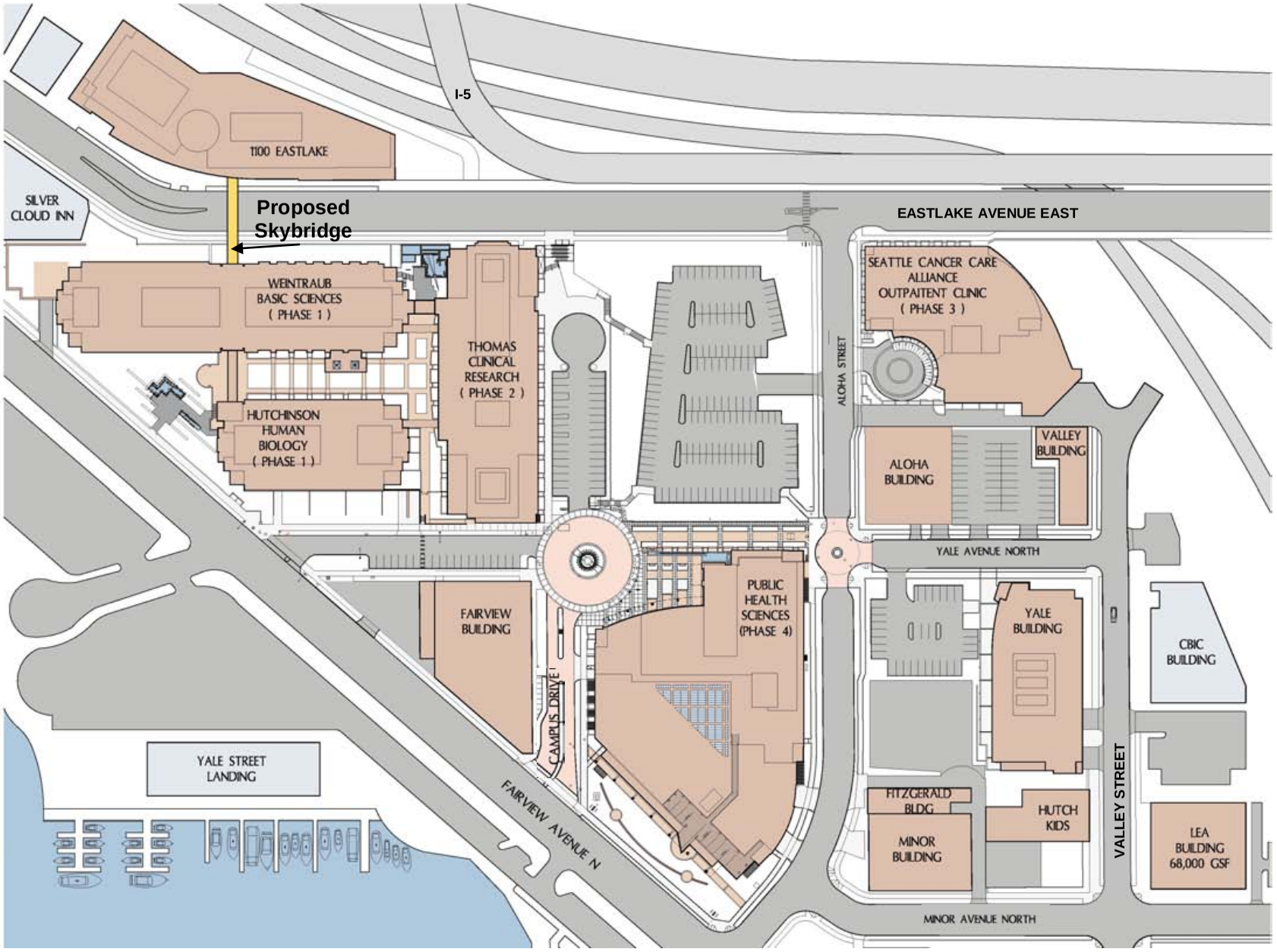
FHCRC—1100 Eastlake
Skybridge Project

Source: Google, EA|Blumen, 2011

EA | BLUMEN

Figure 1
Vicinity Map

FHCRC—1100 Eastlake
Skybridge Project

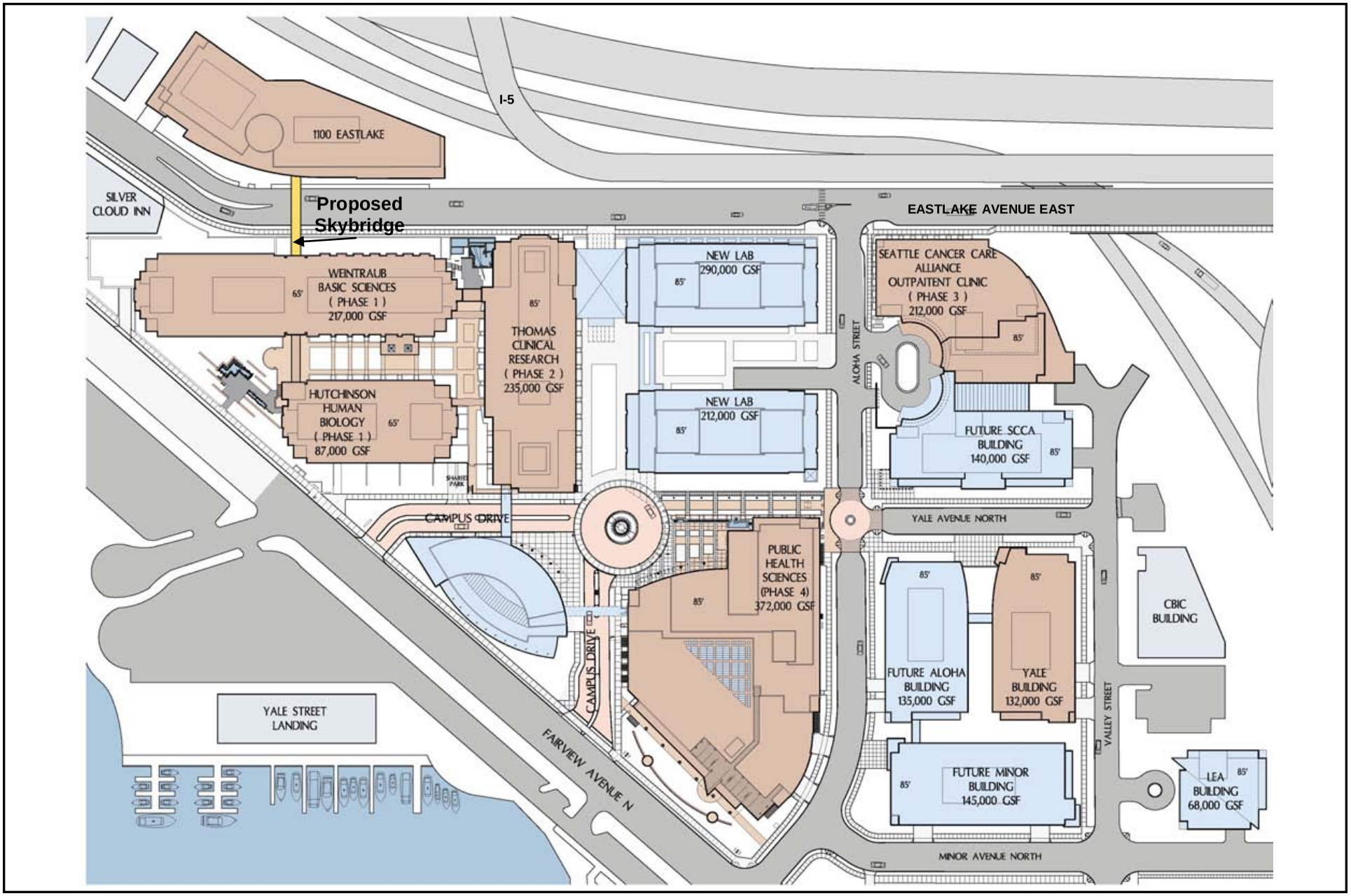


Source: ZGF, 2011

Figure 2
Existing Fred Hutchinson Cancer Research Center Campus

EA | BLUMEN

FHCRC—1100 Eastlake
Skybridge Project

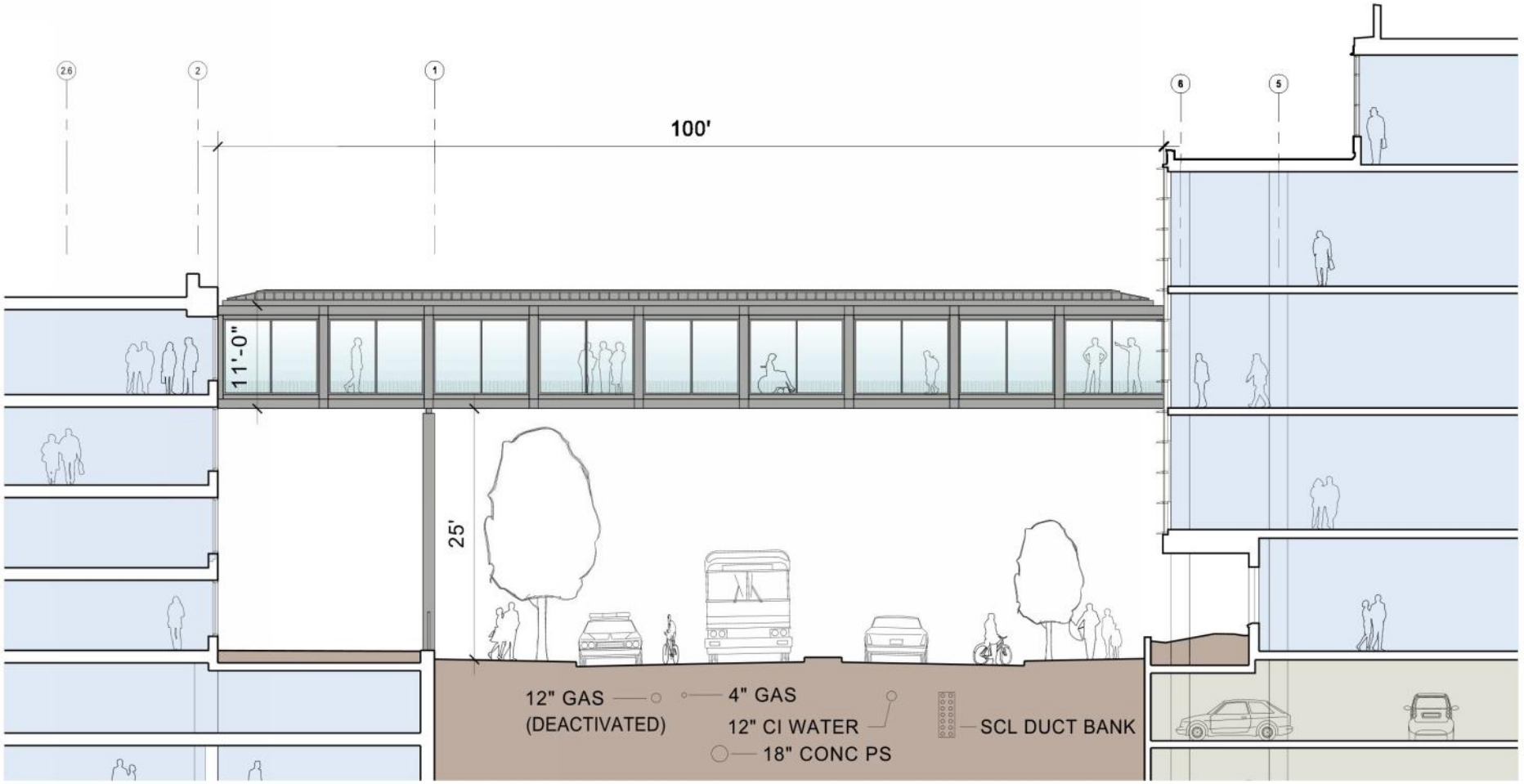


Source: ZGF, 2011

Figure 3
Fred Hutchinson Cancer Research Center Master Plan

EA | BLUMEN

FHCRC—1100 Eastlake
Skybridge Project



Source: ZGF, 2011

Figure 4
1100 Eastlake Skybridge Section and Plan

FHCRC—1100 Eastlake
Skybridge Project

Source: ZGF, 2011

EA | BLUMEN

Figure 5
1100 Eastlake Skybridge Photosimulation Looking South

Source: ZGF, 2011

Figure 6
1100 Eastlake Skybridge Photosimulation Looking North

EA | BLUMEN

ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (circle one): flat, rolling, hilly, steep slopes, mountainous, other:_____

The project site (the area between the 1100 Eastlake building and the Weintraub building) consists of Eastlake Avenue E right-of-way and is generally flat.

b. What is the steepest slope on the site (approximate percent slope)?

The project site is generally flat, as shown on the photosimulations in **Figures 5** and **6.**

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Soils in the site area were evaluated as part of the permitting process for the 1100 Eastlake building and the Weintraub building and were considered suitable for building construction. Although development of the proposed skybridge would not affect soils, a minimal amount of trenching may be required for utility relocation. The skybridge itself is supported by the two buildings and a third support mounted to an existing foundation wall.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

The City of Seattle Environmentally Critical Areas (ECA) map has identified known slide areas to the east of the project site on the east side of the 1100 Eastlake building. Steep slopes areas have been mapped to the northwest, southwest, southeast and east of the project site. Potential slide areas have been mapped south of the project site.

There are no indications of unstable soils within the Eastlake Avenue E right-of-way where the skybridge would be constructed or the areas where utility trenches would be excavated. Impacts to existing ECAs would not be anticipated.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

The proposal consists of construction of a new skybridge that would span between two FHCRC campus buildings across the existing Eastlake Avenue E right-of-way. In order to accommodate the proposed skybridge, the existing overhead electrical utilities located in

the landscaped area adjacent to the Weintraub Basic Sciences building would need to be relocated to a below-grade utility trench. A minor amount of grading would be required to excavate the trench.

No other grading, excavation, or other soil-related activities would be required for the proposed skybridge project.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

A minor amount of erosion could occur in conjunction with trenching for relocation of the existing electrical utilities. No additional soil-related activities are proposed and no further erosion would be anticipated.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

The majority of the project site is presently covered with impervious surfaces, including the Eastlake Avenue E right-of-way. No new impervious surface areas are proposed as part of this project.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Temporary Erosion and Sedimentation Control (TESC) measures, including silt fences, would be provided for trenching associated with the relocation of existing overhead electrical utilities.

2. Air

a. What type of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Site preparation and construction could generate dust from the minor grading activities associated with the utility trench. Measures to provide reasonable controls of dust emissions would be implemented. Construction equipment and vehicles would emit air pollutants that would slightly and temporarily degrade local air quality and standard construction measures would be implemented.

In order to evaluate the climate change impacts of the proposed skybridge project, a Greenhouse Gas (GHG) Emissions Worksheet has been prepared (based on the SEPA GHG Emissions spreadsheet tool developed by King County) to estimate the emissions footprint for the lifecycle of the skybridge. The Worksheet estimate is based on skybridge square footage. The emissions estimate is based on the combined emissions from the following sources:

- Embodied Emissions – extraction, processing, transportation, construction and disposal of materials and landscape disturbance;
- Energy-related Emissions – energy demands created by the skybridge after it is completed; and,
- Transportation-related Emissions – transportation demands created by the skybridge after it is completed.

It is estimated that the skybridge would be comprised of approximately 1,040 sq. ft. The "other" building type category on the GHG Emissions Worksheet was used, as a skybridge use was not appropriate for the specific identified categories.

In total, the estimated lifespan (65 years) GHG emissions for the proposed skybridge would be approximately 1,574 $MTCO_2e$[2]. The GHG Emissions Worksheets used to estimate the project emissions are contained in **Appendix A** to this Checklist. This estimate of GHG emissions is likely overstated in that the skybridge would not generate energy-related emissions after construction or have associated transportation demands.

The scale of global climate change is so large that a project's impacts can only be evaluated on a cumulative scale and it is not anticipated that a single development project would cause an individually discernable impact on global climate change.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Existing traffic on I-5 and streets adjacent to the site (Eastlake Avenue E) are the primary source of air quality emissions that could affect the project. FHCRC campus buildings are located immediately west and east of the project site and also includes laboratory uses which generate hazardous gases/fumes. However, hazardous materials (including hazardous gases/fumes) at the FHCRC are handled in accordance with the FHCRC Hazard Awareness and Management Manual. No other off-site sources of emissions or odors that may affect the proposed skybridge project have been identified. Existing emissions in the vicinity of the site are not expected to be significant.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Standard mitigation measures to reduce exhaust emissions and dust would be implemented to reduce the potential for air quality impacts

2 $MTCO_2e$ is defined as Metric Tonne Carbon Dioxide Equivalent; this equates to 2,204.62 pounds of CO2. This is a standard measure of amount of CO2 emissions reduced or sequestered. Carbon is not the same as Carbon Dioxide. Sequestering 3.67 tons of CO2 is equivalent to sequester one ton of carbon.

resulting from construction activities. Possible mitigation could include measures such as: staging construction to minimize overall transportation system congestion and delays; locating construction equipment as far away as possible from fresh air intakes to nearby buildings and air conditioners; spraying exposed soil with water or other suppressant to reduce fugitive dust; etc.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

There is no surface water body on or immediately adjacent to the proposed skybridge project site. Lake Union is located approximately 0.2-mile to the northwest of the site.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

The proposed skybridge project would not occur within 200 feet of a surface water body.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

No fill or dredge material would be placed in or removed from any surface water body for the proposed skybridge project.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

The proposed skybridge project would not require any surface water withdrawals or diversions.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

The project site does not lie within a 100-year floodplain and is not identified as a flood prone area on the City of Seattle ECA maps.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

The proposed skybridge project would not require any discharge of waste materials to surface waters.

b. Ground:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

The proposed skybridge project would not require any ground water withdrawals or discharges to ground water.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

The proposed skybridge project would not generate new discharges into septic or sewer systems.

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

The proposed skybridge would be located over Eastlake Avenue E (an existing impervious surface) and would not increase the amount of impervious surface in the area. Existing impervious surfaces would continue to be the source of runoff from the proposed skybridge project area. The existing stormwater collection system would continue to collect and convey stormwater from the site to the adjacent City of Seattle stormwater system and no modifications to the existing system are required for the proposed skybridge project. Any rain water landing on the bridge would be diverted to the stormwater system.

2) Could waste materials enter ground or surface waters? If so, generally describe.

The existing stormwater control system for the road right-of-way would continue to prevent waste materials from entering the ground water or surface waters.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

No impacts to surface, ground or stormwater are anticipated for the proposed skybridge project and no mitigation measures would be required.

4. Plants

a. Check or circle types of vegetation found on the site:
X_deciduous tree: alder, maple, aspen, other
__evergreen tree: fir, cedar, pine, other
X_shrubs
X_grass (groundcover)
__ pasture
__ crop or grain
__ wet soil plants: cattail, buttercup, bullrush, skunk cabbage
__ water plants: water lily, eelgrass, milfoil, other
__ other types of vegetation

Street landscaping is provided to the east and west of Eastlake Avenue E adjacent to the FHCRC Weintraub building and the 1100 Eastlake building and includes street trees, shrubs and groundcovers.

b. What kind and amount of vegetation will be removed or altered?

To accommodate the proposed skybridge, one existing street tree adjacent to the FHCRC Weintraub building would be required to be permanently removed because it is directly in the path of the skybridge. This tree does not meet the criteria of a "significant tree" as define by SMC 25.11 or DR 16-2008.

To accommodate construction activities/equipment and utility trenching, the temporary removal of street trees and the groundcover adjacent to the Weintraub building and 1100 Eastlake building may be required. Except for the one tree discussed above, all trees and vegetation removed to accommodate construction would be replaced after the completion of construction activities consistent with applicable City of Seattle requirements.

c. List threatened or endangered species known to be on or near the site.

This is an urban site in the South Lake Union Neighborhood of Downtown Seattle. No known threatened or endangered plant species are located on or proximate to the project site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Construction activities would require a limited amount of tree and vegetation removal in association with construction; vegetation would be replanted subsequent to construction.

Public benefits would be provided with the proposal and could include features such as sidewalk and landscaping improvements adjacent to the Weintraub side of Eastlake Avenue E. The specific public benefits package would be negotiated between FHCRC and the City of Seattle prior to permit approval for the proposal.

5. Animals

a. Circle (underlined) any birds and animals that have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other: seagulls, pigeons
mammals: deer, bear, elk, beaver, other: squirrels
fish: bass, salmon, trout, herring, shellfish, other: None.

b. List any threatened or endangered species known to be on or near the site.

The project site is an urban site in the South Lake Union Neighborhood of Downtown Seattle. No known threatened or endangered animal species are located on or proximate to the project site.

c. Is the site part of a migration route? If so, explain.

The project site, and the entire Puget Sound Region, is part of the Pacific Flyway, a migratory bird route. The site is not part of any other known migration route.

d. Proposed measures to preserve or enhance wildlife, if any:

No impacts to wildlife or wildlife habitat are anticipated from the proposed skybridge project and no specific measures would be required to enhance wildlife and/or habitat.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electricity and natural gas are the primary sources of energy that serve the existing FHCRC Weintraub and 1100 Eastlake E buildings

and would serve the proposed skybridge use. During operation, these energy sources would be used for skybridge heating, cooling, and lighting.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

The proposed skybridge would not affect solar access by adjacent properties.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

The proposed skybridge would comply with the 2009 City of Seattle Energy Code.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.

No environmental health hazards would occur as a result of the proposed skybridge project.

1) Describe special emergency services that might be required.

No special emergency services would be required as a result of the proposed skybridge project.

2) Proposed measures to reduce or control environmental health hazards, if any:

No environmental health hazards are anticipated for the proposed skybridge project; therefore, no control measures are proposed.

b. Noise

1) What types of noise exist in the area that may affect your project (for example: traffic, equipment operation, other)?

Traffic noise associated with I-5 and streets adjacent to the site (Eastlake Avenue E) is relatively high at certain times of day. In addition, there are occasional overflights of seaplanes making their final approach toward the south-end of Lake Union. Neither the traffic noise nor the overflights, however, are expected to significantly impact the proposed skybridge project.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from site.

Temporary construction-related noise would occur as a result of on-site construction activities associated with the proposed skybridge and would comply with provisions of Seattle's Noise Code (SMC, Chapter 25.08). Staging of construction materials, vehicles and a crane would occur in the Eastlake Avenue E street right-of-way adjacent to the FHCRC Weintraub and 1100 Eastlake buildings. These construction noise impacts would be temporary and intermittent in nature and significant noise impacts would not be anticipated.

Once the building is operational, no significant long-term noise impacts associated with the skybridge are anticipated; the development would comply with provisions of the City of Seattle's Noise Code.

3) Proposed measures to reduce or control noise impacts, if any:

As noted above, the proposed skybridge would comply with provisions of the City's Noise Ordinance; specifically: construction hours would be limited to weekdays (non-holiday) from 7 AM to 10 PM and Saturdays and Sundays from 9 AM to 10 PM. If extended construction hours are necessary, the applicant would seek approval from the City of Seattle in advance. However, the need for extended construction hours is not anticipated.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The proposed project site is located on the Eastlake Avenue E right-of-way. Fred Hutchinson Cancer Research Center buildings are located to the east (1100 Eastlake building) and west (Weintraub Basic Sciences building) of the project site.

Other uses in the area include the Silver Cloud Inn to the north, I-5 to the east, and other FHCRC campus buildings to the south and west.

b. Has the site been used for agriculture? If so, describe.

The project site has historically been in urban use and has not been recently used for agriculture.

c. Describe any structures on the site.

The Eastlake Avenue E right-of-way is located on the project site.

d. Will any structures be demolished? If so, what?

Portions of the exterior building envelopes of the 1100 Eastlake building and Weintraub Basic Sciences building would be removed and remodeled to accept the skybridge at both ends.

e. What is the current zoning classification of the site?

The site is currently zoned Commercial 2 (C2-65). This zoning designation has a maximum height limit of 65 feet and is intended to provide for an auto-oriented, primarily non-retail commercial area that provides a wide range of commercial activities serving a community, citywide, or regional function, including uses such as manufacturing and warehousing that are less appropriate in more retail-oriented commercial areas (SMC 23.34.082). Office and laboratory uses are permitted uses within the C2-65 zone.

f. What is the current comprehensive plan designation of the site?

The project site is located in the South Lake Union Urban Center. The Future Land Use Map in the Seattle Comprehensive Plan identifies the site as a Commercial/Mixed-Use Area. Urban Centers are intended to provide mixed-use neighborhoods with nearby access to housing, jobs, and transportation.

g. If applicable, what is the current shoreline master program designation of the site?

The project site is not located within the City's designated shoreline boundary.

h. Has any part of the site been classified as an "environmentally critical" area? If so, specify.

No part of the site has been classified as an "environmentally critical" area. The City of Seattle Environmentally Critical Areas (ECA) map has identified known slide areas identified to the east of the project site on the east side of the 1100 Eastlake Avenue E building. Steep slopes areas are mapped to the northwest, southwest, southeast and east of the project site. Potential slide areas are shown south of the project site.

There are no indications of unstable soils within the Eastlake Avenue E right-of-way where the skybridge would be constructed or the areas where utility trenches would be excavated. Impacts to existing environmentally critical areas would not be anticipated.

i. Approximately how many people would reside or work in the completed project?

No employees would reside or work in the skybridge facility. Approximately 1,000 daily researcher/employee trips across the proposed skybridge would be anticipated.

j. Approximately how many people would the completed project displace?

No employees would be permanently displaced for the proposed skybridge project. It is possible that some employees in the Weintraub Building would be relocated within the building to accommodate the skybridge opening and associated building walkway.

k. Proposed measures to avoid or reduce displacement impacts, if any:

No mitigation measures are necessary, as no displacement of residents or employees would occur with the proposed skybridge project.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

The proposed skybridge project would be compatible with existing and projected land uses and plans. The proposed skybridge would create cohesion and connectivity between the medical research conducted in the 1100 Eastlake building and other portions of the FHCRC campus west of Eastlake Avenue E. Development of the skybridge would minimize pedestrian safety issues that would result from scientists and other employees crossing the busy Eastlake Avenue E roadway. No mitigation measures would be necessary.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

The proposed skybridge project site consists of Eastlake Avenue E right-of-way; no housing units would be provided.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

No housing units would be eliminated to accommodate the proposed skybridge.

c. Proposed measures to reduce or control housing impacts, if any:

The proposed skybridge project would not eliminate any housing units and no mitigation would be necessary.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The proposed skybridge would span from the 3rd floor of the Weintraub building to the 3rd floor of the 1100 Eastlake building, as shown on **Figure 4**. From the ground level of the roadway to the base of the skybridge would be approximately 24 ft. 4 in. The skybridge structure would be approximately 13 ft. in height. The tallest height of the proposed skybridge would be 37 ft. 4 in. above the ground level of the roadway. The building would be constructed of steel and glass materials, similar to other existing campus skybridges. The steel would be painted black and the glazing on the skybridge would be clear.

b. What views in the immediate vicinity would be altered or obstructed?

Four major view categories influence viewshed analyses in Seattle: (1) view from SEPA-designated viewpoints, (2) views affecting designated historic structures; (3) view of the Space Needle from designated viewpoints, and (4) views from designated scenic routes.

The proposed skybridge site is not in the vicinity of and does not affect views from SEPA-designated viewpoints, views affecting designated historic structures or view of the Space Needle from designated-viewpoints. Eastlake Avenue E has been designated by the Seattle Department of Transportation as a scenic route. However, the portion of Eastlake Avenue E proposed for the skybridge does not contain views of water (Lake Union) or mountains, and contains only a limited view of downtown. As shown in **Figure 5** and **6**, the proposed skybridge spans the Eastlake Avenue E roadway but would have only a minimal potential to affect a distant view toward downtown from Eastlake Avenue E.

c. Proposed measures to reduce or control aesthetic impacts, if any:

The materials used to construct the skybridge would be similar to materials used in other skybridges on the FHCRC campus. No additional aesthetic impacts are anticipated with the proposed skybridge project (urban design or viewshed); therefore, no other mitigation measures would be necessary.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

The proposed skybridge would be constructed of steel and glass elements and would be similar to other skybridges on the FHCRC campus, as shown on **Figures 5** and **6**. The steel would be painted black and the glazing on the skybridge would be clear. Materials used on the skybridge would be low-reflective to minimize the potential for glare.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

Light and glare associated with the proposed skybridge project is not expected to cause a safety hazard nor interfere with views.

c. What existing off-site sources of light or glare may affect your proposal?

Light and glare sources in the site vicinity include existing office and laboratory uses and existing vehicular traffic. These light/glare sources are not expected to affect the proposed skybridge project.

d. Proposed measures to reduce or control light and glare impacts, if any:

Materials used on the skybridge would be considered low-reflective to minimize the potential for glare on vehicular traffic and nearby buildings.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

The closest designated open space is the Eastlake Triangle, a 0.07 acre open space area located adjacent to the south of the 1100 Eastlake building**.** This open space area is undeveloped and does not currently have any facilities and or amenities.

The closest recreational resource is the Bellevue Place, which is located approximately 0.1-mile to the southeast of the project site on the east side of I-5. Bellevue Place is an approximately 1.4-acre park that includes bicycle/pedestrian pathways and open space areas.

The approximately 12-acre Lake Union Park is located approximately 0.4-mile to the west of the site and includes a water fountain, play areas, a model boat pond, historic ships wharf, boating and maritime heritage programs, and walking paths.

b. Would the proposed project displace any existing recreational uses? If so, describe.

The proposed skybridge project would not displace any existing recreational uses.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

No impacts on recreation are anticipated with the proposed skybridge project and no mitigation would be necessary.

Public benefits would be provided with the proposal as part of the skybridge permit approval process and could potentially include features such as sidewalk and landscaping improvements adjacent to the Weintraub side of Eastlake Avenue E; installation of additional lighting elements as part of the Fairview & Fairview project; and, additional wayfinding features near the campus and in the South Lake Union neighborhood. These features would improve the pedestrian experience and public enjoyment of the area. The specific public benefits package would be negotiated between FHCRC and the City of Seattle prior to permit approval for the proposal.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

The project site and immediately adjoining properties do not contain any structures that are listed on national, state or local preservation registers.

The former Lake Union Steam Plant and Hydro House building is located approximately 0.1-mile to the north of the project site and has been designated as a Landmark by the City of Seattle.

The Harvard-Belmont Historic District is located approximately 0.3-mile to the east of the project site, beyond I-5 and has been listed on the National Register of Historic Places (NRHP) and the Washington Heritage Register (WHR). This area represents an exclusive residential neighborhood that was established in the early 1900s with a variety of residential architectural styles including Victorian, Neo-classical, Colonial Revival, and Tudor Revival houses. The Samuel Hill House, R.D. Merrill House and Cornish School are located to the east of the site, within the Harvard-Belmont Historic District, and are listed on the NRHP and WHR.

The former Naval Reserve Armory Center is located approximately 0.4-mile to the west of the project site, within Lake Union Park, and is

listed on the NRHP and WHR. Several historic ships are also moored within Lake Union Park, including the M.V. Westward, Schooner Martha, Pirate (R-Class Sloop), and S.S. San Mateo; these ships are all listed on the NRHP and WHR.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

The project site is identified as part of an "Archaeological Buffer" which indicates that the site is located within 200 feet of the U.S. Government Meander Line (historic shoreline of Lake Union) and could have the potential for discovery of archaeological resources. However, the proposed skybridge project includes minimal soil disturbance (utility trenching) and is not expected to result in the disturbance of archaeological resources.

c. Proposed measures to reduce or control impacts, if any:

The proposed skybridge project is not anticipated to result in impacts to historic or archaeological resources and no mitigation measures are deemed necessary.

14. Transportation

a. Identify public streets and highways serving the site, and describe the proposed access to the existing street system. Show on site plans, if any.

The proposed skybridge is intended to serve as a pedestrian walkway between the FHCRC 1100 Eastlake building and the FHCRC Weintraub building. Vehicular access to the FHCRC campus buildings is primarily provided by Eastlake Avenue E and Fairview Avenue.

As described in **Appendix B**, the *Pedestrian Crossing Analysis* (Heffron, 2011), there is currently no direct pedestrian access between the 1100 Eastlake building and the rest of the FHCRC campus west of Eastlake Avenue E. The closest crosswalks to the buildings are located 750 feet south of the site (near Aloha Street) and 650 feet north of the site (near the Nelson Place intersection).

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The project site is well-served by transit and numerous King County Metro transit routes stop in the vicinity of the site. Route #66 travels along Eastlake Avenue E, adjacent to the project site. Stops serving both directions of Route #66 are located immediately south of the project site at Aloha Street. Route #25 travels along Lakeview Boulevard E, which connects with Eastlake Avenue E approximately

0.2-mile to the south of the site. In addition, several transit routes travel along Fairview Avenue N (0.05-mile to the west of the site), including Route #70, 71, 72, 73, and 83. Finally, the South Lake Union Street Car operates to the west of the project site, along Fairview Avenue N within its northern terminus in front of the existing FHCRC Campus (just north of Ward Street)

c. How many parking spaces would the completed project have? How many would the project eliminate?

The proposed skybridge project would not include the provision of new parking spaces or elimination of existing parking spaces.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

The proposed skybridge project would not require any new road or streets, or improvements to existing roads or streets. However, to provide public benefits, certain pedestrian improvements to the west side of Eastlake Avenue E (adjacent to the Weintraub building) could be provided including additional sidewalk and landscaping improvements as described in Section A.11. The specific public benefits package would be negotiated between FHCRC and the City of Seattle prior to permit approval for the proposed skybridge.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

Lake Union is located approximately 0.2-mile to the northwest of the proposed skybridge project site and provides water and air transportation (seaplanes). However, the proposed skybridge project would not use water, rail or air transportation.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Development of the proposed skybridge project would not result in the generation of new vehicular trips.

g. Proposed measures to reduce or control transportation impacts, if any.

Construction activities associated with the proposed skybridge could result in temporary disruptions to traffic or pedestrian access to Eastlake Avenue E. Installation of the skybridge structure could require temporary closure of portions of Eastlake Avenue to accommodate construction or parking of construction equipment (including a crane). Sidewalks in the area could also be temporarily

closed. Temporary road and sidewalk closures or impacts would be coordinated with the Seattle Department of Transportation to minimize impacts. Operation of the proposed skybridge project would not result in impacts to vehicular traffic.

Upon completion of the skybridge and occupation of the 1100 Eastlake building by FHCRC employees, the proposed skybridge is anticipated to be utilized by researchers/employees approximately 1,000 times per day.

Development of a skybridge would result in the routing of pedestrian traffic associated with scientists and other staff moving between the 1100 Eastlake building and the FHCRC campus west of Eastlake Avenue E to the skybridge. The existing street character currently reflects minimal pedestrian activity and the proposal would not be anticipated to negatively affect existing street level pedestrian character. Further, the Seattle Department of Transportation has indicated that it is unsafe to provide an at-grade crosswalk between the 1100 Eastlake Building and the Weintraub building.

Public benefits would be provided with the proposal as part of the skybridge permit approval process that would improve the pedestrian experience along Eastlake Avenue E and could potentially include features such as additional sidewalk and landscaping improvements adjacent to the Weintraub side of Eastlake; additional lighting elements as part of the Fairview & Fairview project; and, additional wayfinding features near the campus and in the South Lake Union neighborhood. The specific public benefits package would be negotiated between FHCRC and the City of Seattle prior to permit approval for the proposal.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

The completed skybridge project would not result in the increased need for additional public services.

b. Proposed measures to reduce or control direct impacts on public services, if any.

No new impacts to public services are anticipated; no measures are proposed.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

All utilities are currently available at the site.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in immediate vicinity that might be needed.

Utilities and providers (in parentheses) proposed for the skybridge project include:

- Gas (Puget Sound Energy)
- Electrical (Seattle City Light)
- Refuse/Recycling Service (Cleanscapes)

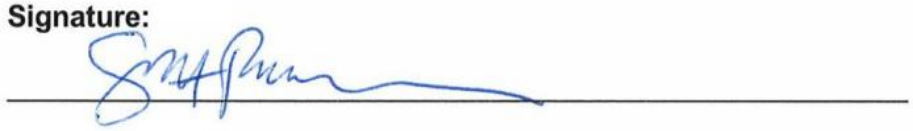
All utilities are currently provided to the existing building to which the skybridge would be attached; no new utility connections would be required.

The proposed skybridge project would also require relocation of the existing overhead electrical lines adjacent to the Weintraub Basic Sciences building to a below-grade trench. Utility relocation would be coordinated with Seattle City Light and other relevant service providers to ensure minimal impact to customers.

B. SIGNATURES

The above answers are true and complete to the best of my knowledge. I understand the lead agency is relying on them to make its decision.

Signature:



Date submitted:

10/28/11

This checklist was reviewed by:

Land Use Planner, City of Seattle Department of Planning and Development

Any comments or changes made by the Department are entered in the body of the checklist and contain the initials of the reviewer.

APPENDIX A

Greenhouse Gas Emissions Worksheet

APPENDIX A
Fred Hutchinson Cancer Research Center - 1100 Eastlake Skybridge Project
Greenhouse Gas Emissions Worksheet

Section I: Buildings

Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Emissions Per Unit or Per Thousand Square Feet (MTCO2e)			**Lifespan Emissions (MTCO2e)**
			Embodied	Energy	Transportation	
Single-Family Home	0		98	672	792	**0**
Multi-Family Unit in Large Building	0		33	357	766	**0**
Multi-Family Unit in Small Building	0		54	681	766	**0**
Mobile Home	0		41	475	709	**0**
Education			39	646	361	**0**
Food Sales		0.0	39	1,541	282	**0**
Food Service		0.0	39	1,994	561	**0**
Health Care Inpatient		0.0	39	1,938	582	**0**
Health Care Outpatient		0.0	39	737	571	**0**
Lodging		0.0	39	777	117	**0**
Retail (Other Than Mall)		0.0	39	577	247	**0**
Office		0.0	39	723	588	**0**
Public Assembly		0.0	39	733	150	**0**
Public Order and Safety		0.0	39	899	374	**0**
Religious Worship		0.0	39	339	129	**0**
Service		0.0	39	599	266	**0**
Warehouse and Storage		0.0	39	352	181	**0**
Other		1.0	39	1,278	257	**1574**
Vacant		0.0	39	162	47	**0**

Section II: Pavement

Pavement		0.00				**0**

Total Project Emissions: **1574**

APPENDIX B

Pedestrian Crossing Analysis

heffron transportation, inc.

TECHNICAL MEMORANDUM

Project: Fred Hutchison Cancer Research Center

Subject: Pedestrian Crossing Analysis

Date: May 18, 2011

Author: Tod S. McBryan, P.E., Principal
Claudia S. Hirschey, P.E., Principal

This memorandum provides analysis of a potential pedestrian crossing at approximately 1100 Eastlake Avenue E. This analysis reviews the potential for installation of a pedestrian-actuated signal at this location to serve future employees and visitors of the Fred Hutchinson Cancer Research Center (FHCRC). The existing FHCRC campus is located between Fairview Avenue N and Eastlake Avenue E immediately to the west. FHCRC recently purchased the building located at 1100 Eastlake Avenue E as an addition to its campus. It is expected that employees and visitors will walk between the newly acquired building and the existing campus regularly throughout each day. The 1100 Eastlake Avenue E building is expected to house approximately 400 employees.

The following presents a summary of existing conditions in the site area, the existing traffic volumes, speeds, and gaps in traffic along Eastlake Avenue E, and the level of pedestrian traffic that would be required to meet minimum warrants for a signalized pedestrian crossing. This analysis determined that a pedestrian signal would not likely be warranted in this section of Eastlake Avenue E.

1. Existing Conditions

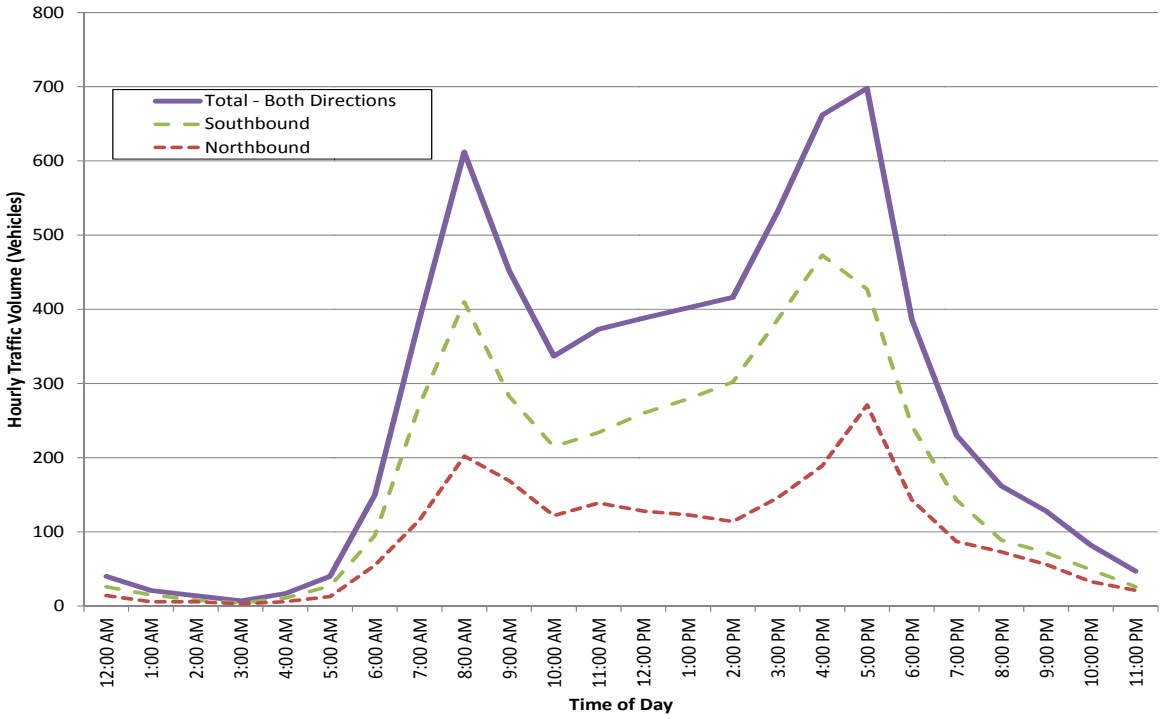
Eastlake Avenue E is a two-lane principal arterial that extends from approximately Denny Way on the south to the University Bridge on the north. In the immediate vicinity of the FHCRC campus, the roadway has one-lane in each direction with bike lanes, curbs, gutters, and sidewalks on both sides. Parallel on-street parking is permitted along the west side of the roadway near the FHCRC campus; it is permitted on both sides north of the 1100 Eastlake Avenue E building. There is a raised center median that extends approximately 150 feet along the curved section of Eastlake Avenue E at about the 1100 block where the roadway changes from a northeast-southwest orientation to a north-south orientation. The speed limit is 30 mph.

There are marked and signed crosswalks located at points north and south of the study location. A crosswalk with a center refuge (protected by a raised concrete median) is located approximately 750 feet south of the study location on the north side of the Aloha Street intersection. A similar marked crossing is located approximately 650 feet north of the study location on the south side of the E Nelson Place intersection. There is a third crossing approximately 170 feet further north of the E Nelson Place crossing.

2. Existing Traffic Conditions

New 72-hour machine traffic counts were commissioned beginning Tuesday, February 8, 2011 and ending on Friday, February 11, 2011. The data were recorded in 15-minute increments and included volume, speed, vehicle classification, and gap data. The hourly traffic volume data were compiled and averaged over three full weekdays. The results are presented in Figure 1. As shown, the roadway has typical peaking characteristics with a sharp peak (just over 600 vehicles per hour (vph)) from 8:00 to 9:00 A.M. and an afternoon peak of about 700 vph from 5:00 to 6:00 P.M. This segment of Eastlake Avenue E is somewhat unusual in that southbound traffic volumes are consistently higher than northbound traffic volumes throughout the day. This is likely due to the traffic patterns created by the Interstate 5 interchange at Mercer Street/Fairview Avenue. At this interchange, Interstate 5 traffic can easily access northbound Fairview Avenue N, but southbound Fairview Avenue N traffic cannot turn onto Interstate 5.

Figure 1. Eastlake Traffic Volume



Source: Heffron Transportation, Inc., Average of three days: February 8, 9 & 10, 2011.

Although the speed limit is 30 mph, the traffic speed data collected indicate that the 85th-percentile speeds were consistently about 37 mph for northbound traffic and about 34 mph for southbound traffic. The volume of heavy vehicles (buses and trucks) using the corridor is relatively small—0.8% northbound, 1.4% southbound.

3. Pedestrian Signal Warrant

3.1. Traffic and Pedestrian Volumes

The City of Seattle Department of Transportation (SDOT) relies on the most recent version of the *Manual on Uniform Traffic Control Devices* (MUTCD)[1] signal warrants. As stated in the MUTCD,

[1] MUTCD, Federal Highway Administration, 2009 Edition

"*The Pedestrian Volume signal warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street.*"

The pedestrian signal warrant is based on minimum thresholds for hourly traffic and pedestrian volumes. The volume thresholds are presented in plotted curves for two conditions—*Pedestrian Four-Hour Volume*[2] and *Pedestrian Peak Hour*.[3] Lower volumes are required to meet the four-hour thresholds, while higher volumes are required to meet the peak-hour thresholds. The four-hour warrant requires a minimum of 107 pedestrian crossings per hour where the traffic volume is 1,100 vph or higher. If the roadway traffic volume is less than 1,100 vph, the required minimum pedestrian crossing volumes are higher. For example, during the highest four-hours on Eastlake Avenue E, the traffic volumes total 612, 532, 662, and 698 vph. In order to warrant a pedestrian signal, this level of traffic would require hourly pedestrian crossing volumes of roughly 330, 290, 260, and 245 respectively. These volumes can be seen plotted on the attached warrant charts (Figure 4C-5).

The one-hour warrant requires a minimum of 133 pedestrian crossings per hour where the traffic volume is 1,450 vph or higher. If the roadway traffic volume is less than 1,450 vph, the required minimum pedestrian crossing volumes are higher. For example, the highest total two-way traffic volume on Eastlake Avenue E was 698 vph. This level of traffic would require an hourly pedestrian crossing volume of roughly 425 as can be seen on Figure 4C-7 (attached).

Since the proposed 1100 Eastlake Avenue E building is expected to house a total population of about 400 employees, it is very unlikely that it could generate the level of pedestrian crossings required to meet either the four-hour or peak hour warrants.

3.2. Other Considerations

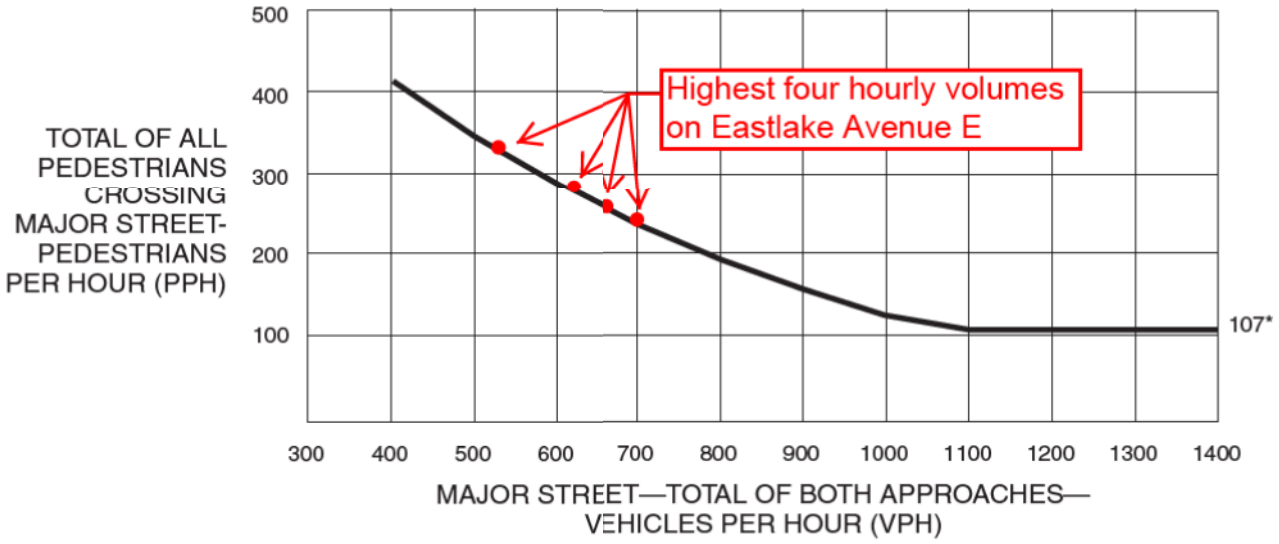
Other considerations for pedestrian crossings are the available gaps in traffic for pedestrians to cross, and the distance to the nearest signalized crossing location. The speed, volume, and platooning of vehicles affects the available gaps in the traffic stream for pedestrians to cross a roadway. Although there is only one travel lane in each direction, the width between the outside curb (adjacent to the parking lane) and the edge of the center median is about 25 feet in each direction to accommodate the travel lane, bike lane, and parking area. The center median allows a pedestrian to cross each direction of traffic separately and pause in the center if needed. Based on the width of each direction's crossing, and the 85th-percentile walking speed of 3.5 feet per second, a pedestrian would require a gap in vehicle traffic of 8 or more seconds in each direction of traffic.

Gap data collected during the counts described previously indicate that each direction of this segment of Eastlake Avenue E has gaps of nine seconds or more at a frequency of at least one per minute during the hours between 7:00 A.M. and 7:00 P.M. During these periods, the number of adequate gaps ranged from 54 to 100 per hour in northbound traffic and from 83 to 136 per hour in southbound traffic. These data indicate that the number of adequate gaps is sufficient for pedestrians to cross Eastlake Avenue E without a signalized crossing.

Attachments: MUTCD Figure 4C-5
MUTCD Figure 4C-7

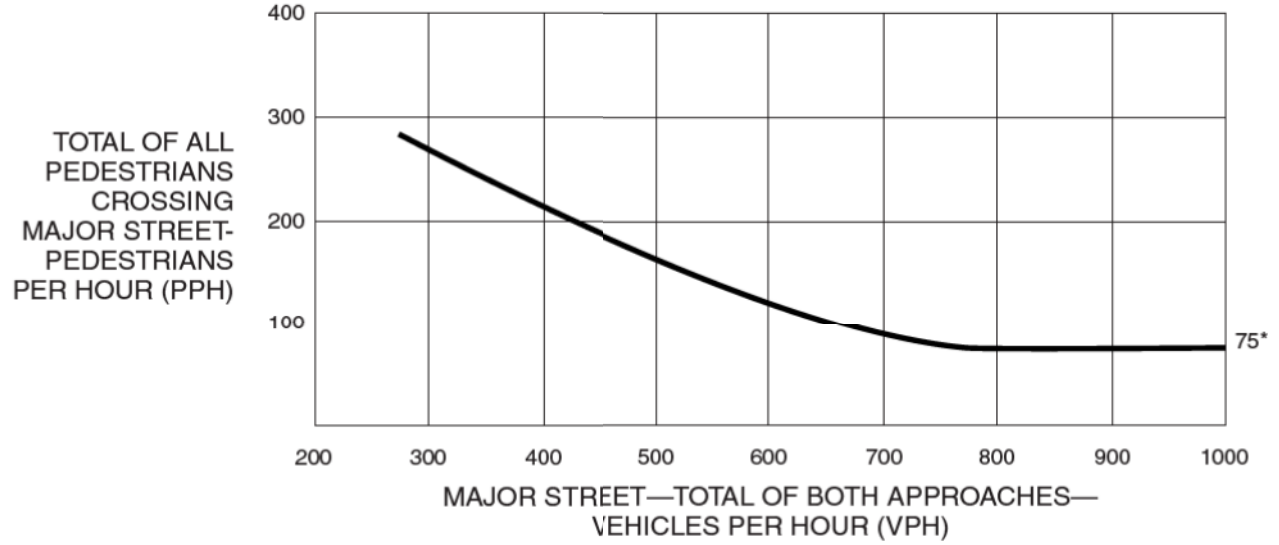
[2] Figure 4C-5. Warrant 4, MUTCD, 2009.
[3] Figure 4C-7. Warrant 4, MUTCD, 2009.

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



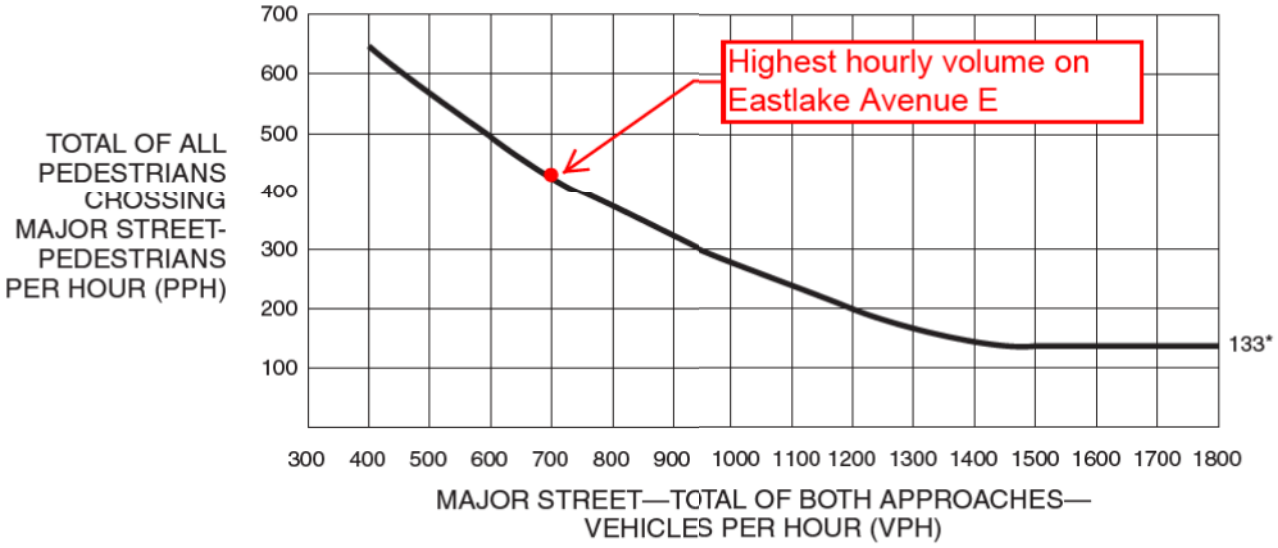
*Note: 107 pph applies as the lower threshold volume.

Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



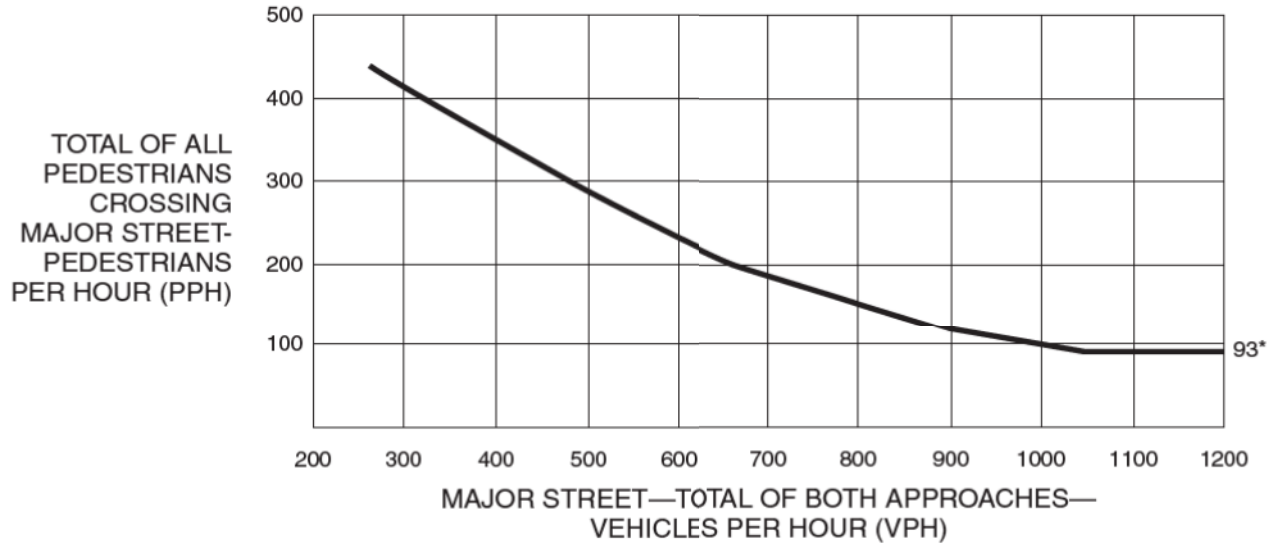
*Note: 75 pph applies as the lower threshold volume.

Figure 4C-7. Warrant 4, Pedestrian Peak Hour



*Note: 133 pph applies as the lower threshold volume.

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

APPENDIX C

SMC 15.64.050B Skybridge Elements

Seattle Municipal Code 15.64.05B Skybridge Elements Discussions in this Fred Hutchinson Cancer Research Center 1100 Eastlake Building Skybridge Project SEPA Checklist

Section 15.64 of the Seattle Municipal Code provides regulatory guidance for skybridge permits in Seattle. Section 15.64.050B provides a list of elements that are considered when an approval of a skybridge permit is requested.

Below is a list of the elements listed in 15.64.050B and references from this SEPA checklist for the Fred Hutchinson Cancer Research Center 1100 Eastlake Building Skybridge Project that pertain to each element.

Title 15 - STREET AND SIDEWALK USE
Subtitle II Miscellaneous Street Use Regulations
Chapter 15.64 - Skybridge Permits

SMC 15.64.050 Circulation of preliminary application.

B. In making the recommendation on the proposed skybridge, the following elements shall be considered:

1. That horizontal and vertical clearance is adequate;

Discussion: As indicated in Section A.11 of this SEPA checklist, the skybridge would be approximately 104 feet long, 10 feet wide and 13 feet tall. The height of the base of the skybridge would be approximately 24 ft. 4 inches above the roadway, as shown in Figure 4, and would provide adequate clearance for vehicular traffic.

2. That structural adequacy is insured;

Discussion: As indicated in Section A.11 of this SEPA checklist, the design and features of the skybridge would comply with applicable provisions of the Seattle Building Code and ADA guidelines.

3. Potential conflict with existing or proposed utilities, street lighting, or traffic control devices;

Discussion: As indicated in Sections A.11, B.1.E, B.1.F, B.16.B, of this SEPA checklist, installation of the proposed skybridge would require relocation of the existing overhead electrical lines adjacent to the Weintraub Basic Sciences building to a below-grade trench. Trenching activities would require the removal of landscaping and street streets. With the exception of one tree located in the path of the skybridge, any landscaping and trees disturbed by construction

activities would be replaced. No other utilities, street lighting or traffic control devices will be affected.

4. View blockage;

Discussion: As indicated in Section B.10.b, of this SEPA checklist, Four major view categories influence viewshed analyses in Seattle: (1) view from SEPA-designated viewpoints, (2) views affecting designated historic structures; (3) view of the Space Needle from designated viewpoints, and (4) views from designated scenic routes.

The proposed skybridge site is not in the vicinity of and does not affect views from SEPA-designated viewpoints, views affecting designated historic structures or view of the Space Needle from designated-viewpoints. Eastlake Avenue E has been designated by the Seattle Department of Transportation as a scenic route. However, the portion of Eastlake Avenue E proposed for the skybridge does not contain views of water (Lake Union) or mountains, and contains only a limited view of downtown. As shown in Figure 5 and 6, the proposed skybridge spans the Eastlake Avenue E roadway but would have only a minimal potential to affect a distant view toward downtown from Eastlake Avenue E.

5. Interruption or interference with existing streetscape;

Discussion: As indicated on in Section B.14.g of this SEPA checklist, construction activities associated with the proposed skybridge could result in temporary disruptions to traffic or pedestrian access to Eastlake Avenue E. Installation of the skybridge structure could require temporary closure of Eastlake Avenue to accommodate construction or parking of construction equipment (including a crane). Sidewalks in the area could also be temporarily closed. Temporary road and sidewalk closures or impacts would be coordinated with the Seattle Department of Transportation to minimize impacts.

As indicated on in Section A.11 to accommodate construction activities/equipment and utility trenching, the temporary removal of street trees and the groundcover adjacent to the Weintraub building and 1100 Eastlake building would be required. Except for one tree directly in the path of the skybridge, all trees and vegetation removed to accommodate construction would be replaced after the completion of construction activities consistent with applicable City of Seattle requirements.

6. Reduction of natural light;

Discussion: As indicated in Section B.6.b of this SEPA checklist, the proposed skybridge would not affect solar access by adjacent properties.

7. Reduction of pedestrian activity at street level;

Discussion: As indicated in Section B.14.g of this SEPA checklist, development of a skybridge would result in the routing of pedestrian traffic associated with scientists and other staff moving between the 1100 Eastlake building and the FHCRC campus west of Eastlake Avenue E to the skybridge. The existing street

character currently reflects minimal pedestrian activity and the proposal would not be anticipated to negatively affect existing street level pedestrian character. Further, the Seattle Department of Transportation has indicated that it is unsafe to provide an at-grade crosswalk between the 1100 Eastlake Building and the Weintraub building

8. The number of pedestrians projected to use the skybridges;

   Discussion: As indicated in Section A.11, B.8.i, and B.14.g of this SEPA checklist, it is anticipated that the skybridge would be used for up to 1,000 FHCRC scientists/employees trips daily, at all hours of the day and night. As indicated on page 4, for safety and security purposes, the proposed skybridge would be accessible to FHCRC scientists, employees and visitors but would not be accessible to the general public.

9. Effect on commerce and enjoyment of neighboring land use;

   Discussion: As indicated in Section B.8.l of this SEPA checklist, the proposed skybridge project would be compatible with existing and projected land uses and plans. The proposed skybridge would create cohesion and connectivity between the medical research conducted in the 1100 Eastlake building and other portions of the FHCRC campus west of Eastlake Avenue E. Development of the skybridge would minimize pedestrian safety issues that would result from scientists and other employees crossing the busy Eastlake Avenue E roadway. No mitigation measures would be necessary.

10. Availability of reasonable alternatives;

    Discussion: As indicated in Section A.11 of this SEPA checklist, FHCRC considered the following alternatives to a new skybridge but did not carry them forward because they were deemed to be not feasible or reasonable.

    Alternative 1: New Pedestrian Crosswalk – FHCRC analyzed the option of developing an at-grade crosswalk between the 1100 Eastlake building and the Weintraub building. To date, the Seattle Department of Transportation has indicated that they will not approve a new crosswalk at this location due to safety concerns. An August 12, 2011 memorandum from Brian Kemper, Acting City Traffic Engineer, states that SDOT considers an unsignalized crossing at 1100 Eastlake infeasible. A Pedestrian Crossing Analysis by Heffron Transportation found that a signalized crossing is not warranted at this location.

    Alternative 2: Shared Tunnel for Service and Research – As a component of a pending request to SDOT, FHCRC explored the potential for a service tunnel to connect the 1100 Eastlake building and the Weintraub building that is intended for transportation of waste materials and other building activities. FHCRC analyzed the option of utilizing the service tunnel for both transportation of waste materials and as a below-grade pedestrian walkway. The service tunnel was determined to be neither a safe nor an effective mode for connecting scientists and staff from building to building. It was determined to be unsafe practice to commingle the waste/supply stream with scientist/staff circulation and could cause injury to persons.

Alternate 3: Separate Service and Research Tunnels North of Stair - FHCRC analyzed the option of widening the proposed service tunnel to include two passageways, one for waste transportation/service and one for scientists/employees. It was determined there is insufficient space available in the Weintraub building to accommodate a tunnel to the north of the proposed Service Tunnel. in addition, there is large mechanical equipment in the tunnel path that further renders this option infeasible.

Further, the route employees would be required to take from the 1100 Eastlake building to the Weintraub building via the service tunnel (take an elevator to the basement on the west side of Eastlake, walk through the tunnel to the basement garage on the east side of Eastlake, locate an additional elevator, and take that elevator to the level of their appointment) would be undesirable. The inconvenient, undesirable route would likely prompt staff to dart across Eastlake Avenue E at an unmarked area and risk personal injury and accidents.

Alternate 4: Separate Service and Research Tunnels South of Stair – Feasibility issues for this option would be similar to Alternative 3 above. It was determined that there was insufficient space available to accommodate a tunnel to the south of the proposed service tunnel due to mechanical equipment in the tunnel path.

Alternate 5: Separate Service and Research Tunnels – Research Connection at South Weintraub: Construction of a service tunnel and research tunnel connecting to the south side of the Weintraub building is considered infeasible because the research tunnel would require open-cut construction that has been stated to be undesirable to SDOT.

Alternate 6: Separate Service and Research Tunnels - Research Tunnel Above: It was determined that there is insufficient space available to accommodate a research tunnel above the proposed service tunnel due to existing utilities located in the tunnel path. SPU stated that they would not allow these utilities to be relocated and would require open-cut construction that has been stated to be undesirable to SDOT.

Alternate 7: Separate Service and Research Tunnels – Research Tunnel Above Slopes Below the Street Utilities: Similar to Alternate 6, construction of a service tunnel and research tunnel that slopes below the street utilities is infeasible because it would not allow FHCRC to provide ADA access to the 1100 Eastlake building. This configuration would require open-cut construction that has been stated to be undesirable to SDOT.

Alternate 8: Separate Service and Research Tunnels – Research Tunnel Above with Escalator: Similar to Alternates 6 and 7, construction of a service tunnel and researcher tunnel with escalators is infeasible because it would not allow FHCRC to provide ADA access to the 1100 Eastlake building. This configuration would require open-cut construction that has been stated to be undesirable to SDOT. Further, this configuration would result in a loss of existing FHCRC program (laboratory) space.

11. Effect on traffic and pedestrian safety; and

Discussion: As indicated in Section B.8.l of this SEPA checklist, the proposed skybridge project would be compatible with existing and projected land uses and plans. The proposed skybridge would create cohesion and connectivity between the medical research conducted in the 1100 Eastlake building and other portions of the FHCRC campus west of Eastlake Avenue E. Development of the skybridge would minimize pedestrian safety issues that would result from scientists and other employees crossing the busy Eastlake Avenue E roadway.

As indicated in Section B.14, the proposed skybridge project would have no effect on traffic on the roads surrounding the site area.

As indicated in Section A.11 and described in Item 10 above, FHCRC analyzed eight different alternatives to construction of a skybridge and determined that all eight were infeasible due to pedestrian, traffic safety or ADA accessibility concerns.

12. Accessibility for elderly and handicapped.

Discussion: As indicated in Section A.11 of this SEPA checklist, the design and features of the skybridge would comply with applicable provisions of the Seattle Building Code and ADA guidelines.

6
STATEMENT OF NECESSITY

STATEMENT OF NECESSITY

WHY IS A SKYBRIDGE NECESSARY?

Fred Hutchinson Cancer Research Center, world renowned for development of lifesaving bone marrow transplantation, researches and develops treatments for a variety of cancers, blood disorders, genetic diseases and immune deficiencies. Its researchers translate new scientific discoveries into effective prevention strategies, detection methods and treatments.

Center leaders understood that interaction is the lifeblood of science, and this was the critical factor in establishing the South Lake Union campus in 1988. By locating all five research divisions on one campus—unique among comprehensive cancer centers—the Hutchinson Center created a collaborative environment, bringing together scientists from many different disciplines, so that daily interactions can spark conversations leading to life-saving insights.

The Vaccine and Infectious Disease Division, VIDD, was established by Fred Hutchinson Cancer Research Center–first as an Institute in 2007 and as a Scientific Division of the Center in 2010–to address the growing need for treatment and prevention strategies for infectious diseases worldwide. Between 20 and 25 percent of all cancers worldwide are infection-related. By integrating biometric, laboratory, and clinical science, the researchers at VIDD aim to develop novel vaccines for infectious diseases that threaten global health, to shed light on the workings of the human immune system, and to develop novel treatment and prevention strategies to lessen the burden of infectious diseases and cancers caused by infection, particularly in the immune-compromised host.

It is this division which will occupy the 1100 Eastlake Building. This division currently occupies leased space some distance from the Center.

Relocation of the Vaccine and Infectious Disease Division into 1100 Eastlake will allow it to become an integral part of the existing Center campus – but only if safe and effective connectivity is created. Currently, the 1100 Eastlake Building is isolated from the campus, separated by Eastlake Avenue East, a major traffic arterial.

Integration of the Vaccine and Infectious Disease Division into the campus as a whole is critical to the success of the Center mission. The existing Center has been designed to foster collaboration between scientists across divisional boundaries. Indeed, each of the research buildings on the existing campus is connected with the others via a safe and effective network of underground service tunnels, pedestrian walkways and skybridges.

It is necessary for the Center to have similar connectivity between the 1100 Eastlake Building and the rest of the campus. Ideally,

the Center would have a service tunnel connection, an at-grade crosswalk, and a skybridge across Eastlake Ave East.

To date, the City's Department of Transportation has indicated that it cannot approve an at-grade crosswalk out of safety concerns. This leaves the service tunnel and skybridge as the only two connection opportunities available.

The service tunnel is neither a safe nor an effective mode for connecting scientists and staff from building to building. The tunnel, similar to the other tunnels on campus, will convey waste materials and supplies from building to building. It is unsafe practice to commingle the waste/supply stream with scientist and staff circulation. To do so could cause injury to persons, and result in liability to the Center.

The Center has also explored the options of widening or deepening the tunnel to include two passageways, one for service and one for pedestrians. The Center's civil engineers have determined there is insufficient space available in the street to have a tunnel of that width or depth.

Even if the tunnel option were technologically feasible and safe, it would still be unlikely to be used, because its outlet is located across the drive aisle in a corner of the Eastlake Building basement garage. It is improbable that scientists and staff wishing to circulate between the 1100 Eastlake Building and the rest of the FHCRC campus will choose to take an elevator to the basement on the west side of Eastlake, walk through the tunnel to the basement garage on the east side of Eastlake, locate an additional elevator, and take that elevator to the level of their appointment. Rather, the likely route, in the absence of a skybridge, is that scientists and staff will make an ill-advised and unsafe dash across Eastlake. The risk of injury and accident will be significant.

The skybridge, on the other hand, will safely and effectively connect scientists and other staff as they move back and forth between research and activities located in 1100 Eastlake and in the rest of the campus. It is anticipated that the skybridge will be used by up to 1000 persons daily, at all hours of the day and night. VIDD operates nearly around the clock because of collaborations in countries across many time zones.

For these reasons, the skybridge is necessary so that scientists and staff can move safely and effectively between the 1100 Eastlake Building and the rest of the FHCRC campus.

7
ADDITIONAL INFORMATION

City of Seattle

Seattle Department of Transportation Peter Hahn, Director

MEMORANDUM

Date: August 12, 2011

To: Seattle Design Commission

From: Brian Kemper, Acting City Traffic Engineer

Subject: Feasibility of an at grade crossing at 1100 Eastlake Ave

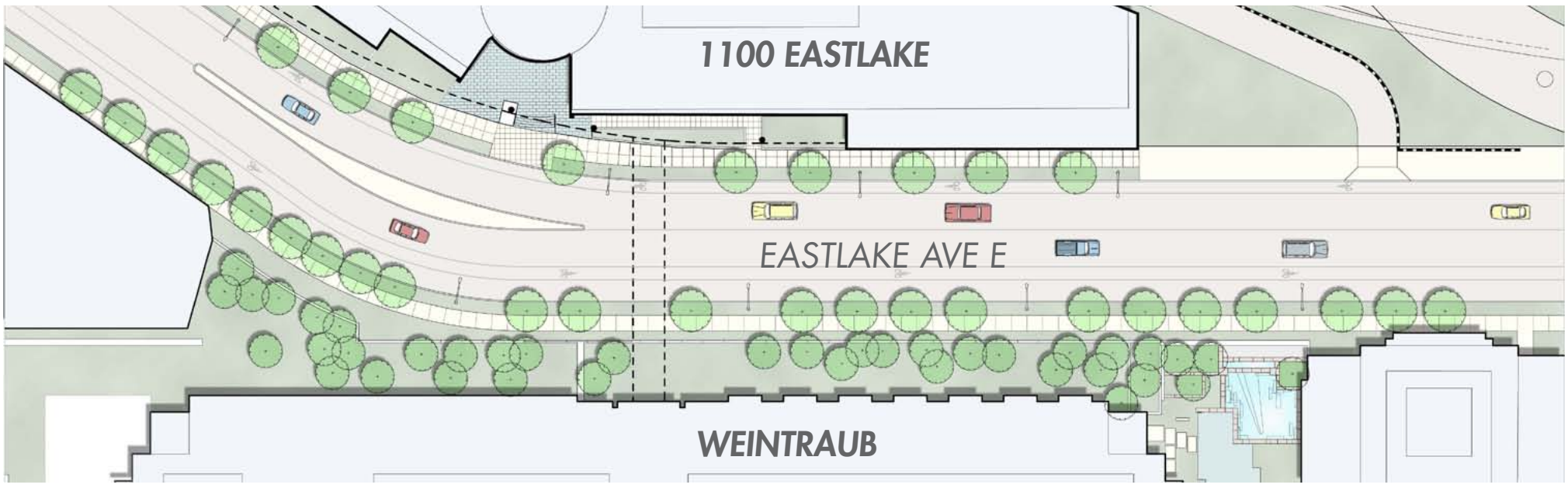
SDOT met at the site with representatives of Fred Hutchinson on February 11, 2011 to evaluate the feasibility of a mid-block crossing adjacent to 1100 Eastlake Ave. During the site visit it was determined that the site distances, vehicle speeds, low pedestrian volumes, and distances between signals make an unsignalized crossing at this location infeasible. We evaluated the site distances at the bend in the road (at the main entrance), just to the north of the entrance, and to the south of the bend. None of these locations provided adequate site distance based on the site visit to provide a safe marked crossing location without signalization. As follow up, SDOT requested that Fred Hutchinson provide a traffic signal warrant analysis to determine if a signal could be installed to facilitate the crossing. That analysis determined that a signal is not warranted.

SDOT would recommend investigating ways to improve the operations of the nearest existing crossings at Aloha Street and Eastlake Ave or E Nelson Pl and Eastlake Ave E.

Seattle Municipal Tower, 700 5th Avenue, Suite 3800, PO Box 34996, Seattle, WA 98124-4996
Tel: (206) 684-ROAD Tel: (206) 684-5000 Fax: (206) 684-5180
Web: www.seattle.gov/transportation
An equal opportunity employer. Accommodations for people with disabilities provided on request.

8
PROPOSED PUBLIC BENEFIT

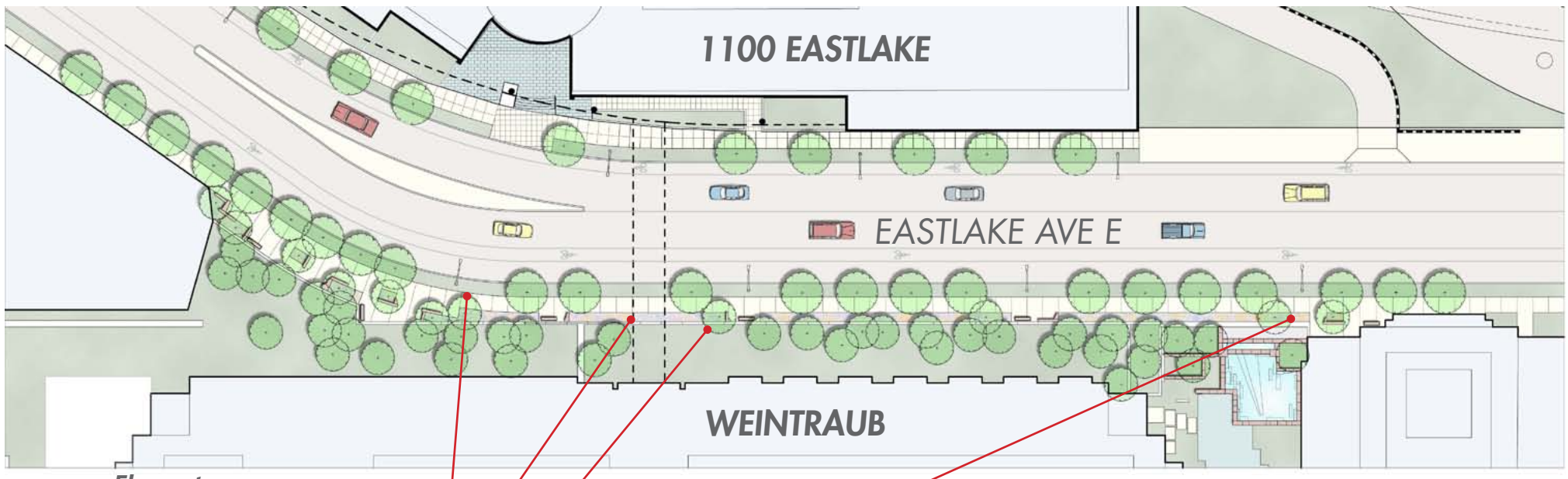
EXISTING CONDITIONS



Goals

- PROVIDE USABLE PUBLIC OPEN SPACE.
- INTRODUCE TEXTURE TO THE STREETSCAPE.
- CONTINUE CAMPUS FAMILY OF STONE BENCHES AND FURNITURE ELEMENTS.

STREETSCAPE IMPROVEMENTS



Elements

ENHANCE SIDEWALK WITH STONE GARDEN, SEATING

LINK SPACES ALONG FRONTAGE WITH LANDSCAPE AND SEATING

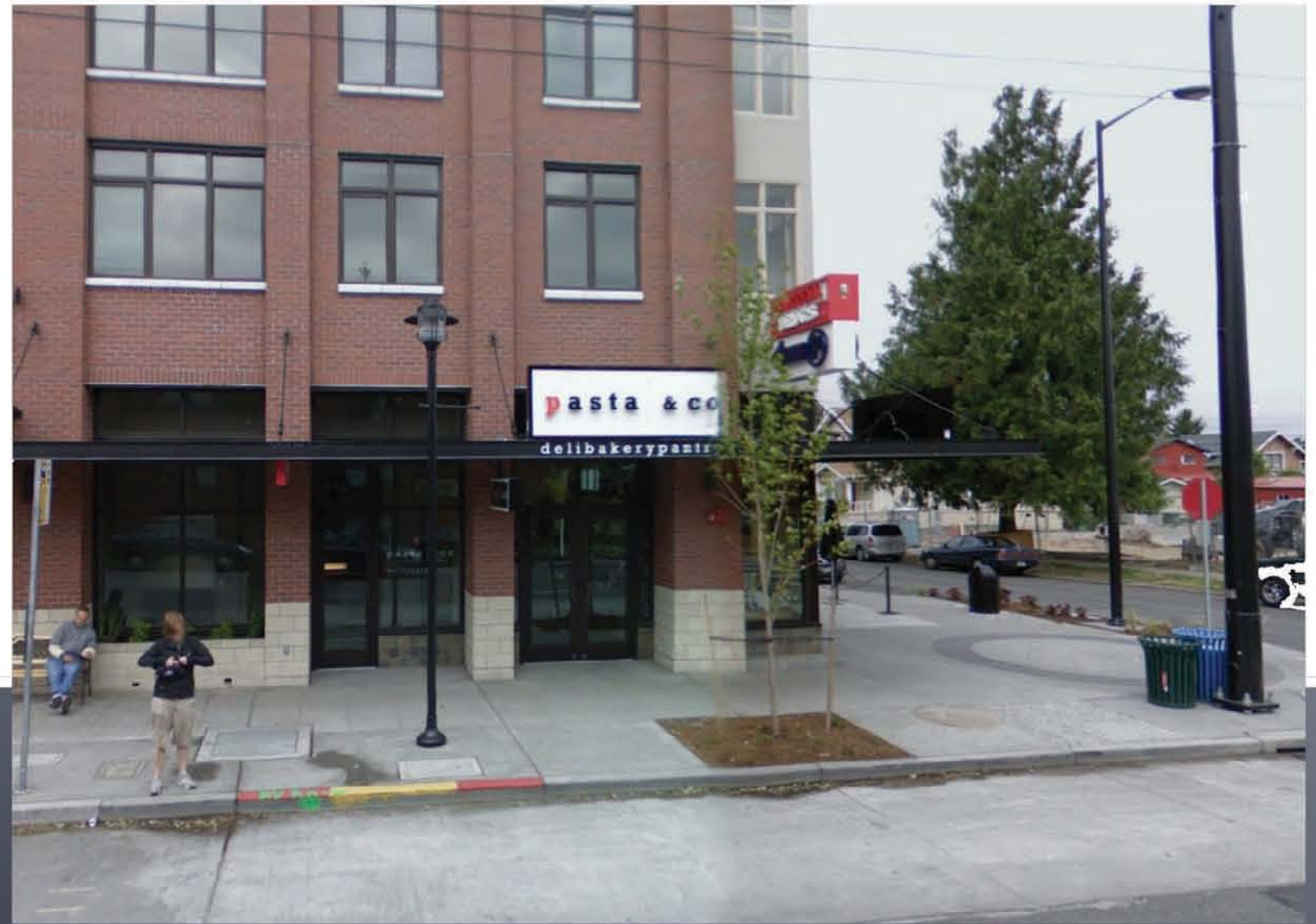
REPLACE FENCE WITH LOW GUARDRAIL TO DIMINISH SEPARATION BETWEEN PUBLIC AND PRIVATE REALM

INVITE DISCOVERY AT WATERFALL OVERLOOK

STREETSCAPE

ZGF

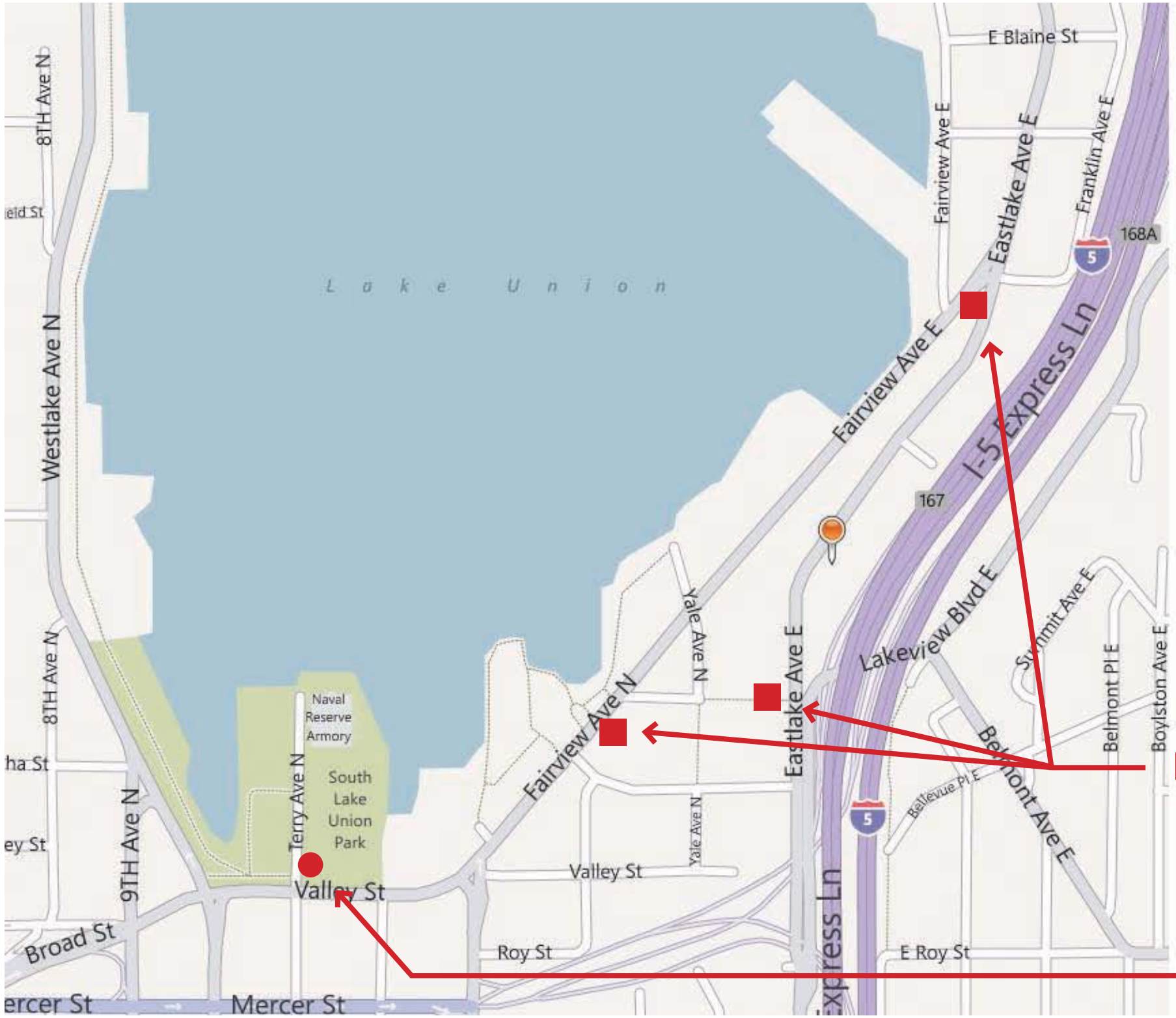
FRED HUTCHINSON CANCER RESEARCH CENTER
A LIFE OF SCIENCE

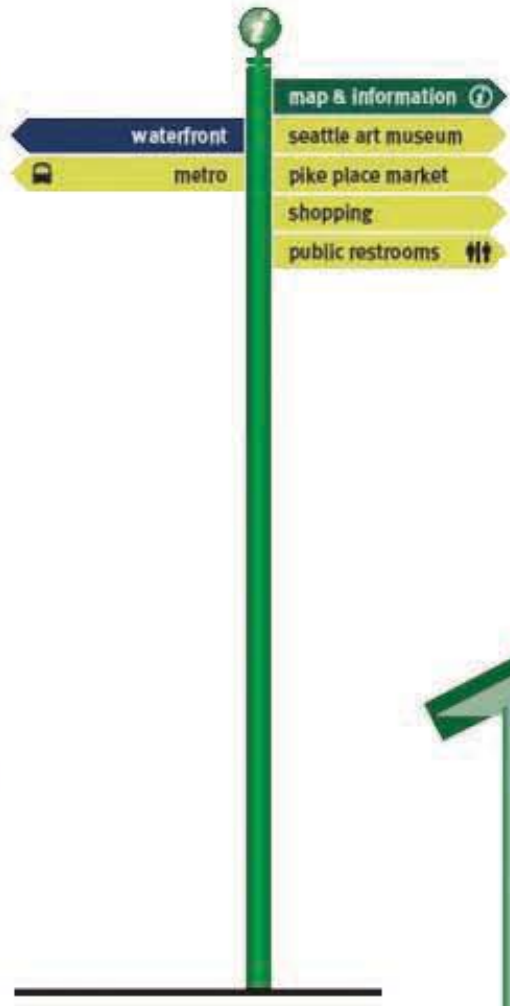


A contribution to the Fairview and Fairview project to assist SDOT in installing the pedestrian safety lights per the plans and images included below

FAIRVIEW ILLUMINATION

LIGHTING





WAYFINDING DIRECTIONAL

KIOSK

WAYFINDING

ZGF

FRED HUTCHINSON CANCER RESEARCH CENTER
A LIFE OF SCIENCE

9

RESPONSE TO DIRECTOR'S RULE 23-2006

FRED HUTCHINSON CANCER RESEARCH CENTER
1100 EASTLAKE BUILDING
SKYBRIDGE PETITION PACKAGE

RESPONSE TO DIRECTOR'S RULE 23-2006

SECTION

3.1.1. **Horizontal and vertical clearance.** The vertical clearance is 24' 4" above Eastlake Avenue E and is approximately 12' in overall width, with 10' of interior width. The street classification is Principal Artery.

3.1.2. **Structural adequacy.** The Center will submit the appropriate structural calculations with the final drawing packages for SDOT and DPD approval.

3.1.3. **Potential conflict with existing or proposed utilities, street lighting or traffic control.** The skybridge will conflict with existing overhead electrical service. The proposal includes moving that service underground to avoid the skybridge.

3.1.4. **View Blockage.** The proposed location is not subject to SMC 23.49.024. The proposed skybridge does not block public views for any of the natural or man-made features listed in SMC 25.06.675P.

3.1.5. **Interruption or interference with existing streetscape.** The current pedestrian environment is not heavily used given the lack of street-level amenities and walking destinations. Eastlake Avenue E is a significant arterial and bike corridor. Pedestrian enhancements are included in the proposed public benefit discussed in Tab 8.

3.1.6. **Reduction of natural light.** The proposed skybridge structure is composed of transparent sides that allow natural light to pass through. This, in conjunction with its significant vertical clearance, will result in little discernable reduction in the amount of light at street level. As for lighting, the current design calls for interior lighting and no lighting underneath the bridge. The existing street lighting would not be affected.

3.1.7. **Reduction of pedestrian activity at street level.** As mentioned previously, there is little pedestrian activity on the street given the lack of amenities and destinations in the vicinity. In addition, SDOT has determined that an at-grade crossing at this location is not safe. See Tab 7. As a result, the proposal will cause little reduction in pedestrian activity at street level.

3.1.8. **The number of pedestrians projected to use the skybridge.** The Center estimates approximately 1,000 employee and researcher trips per day across the skybridge. For safety and security reasons, access is limited to FHCRC researchers and employees.

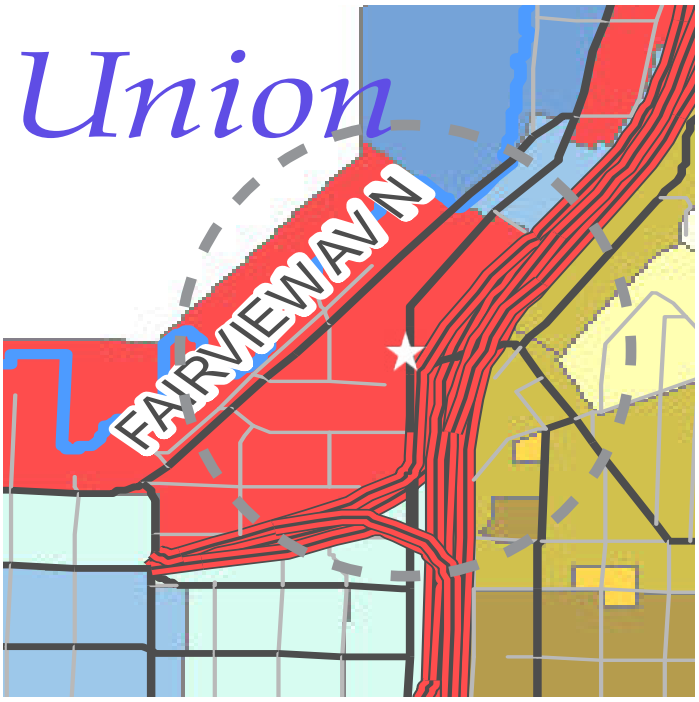
3.1.9. **Effect on commerce and enjoyment of neighboring land use.** Following this summary is an urban analysis that identifies zoning, street classifications, neighborhood planning boundaries, parks and area retail and restaurants. The analysis demonstrates that the proposal has little or no adverse impact on area commerce and the enjoyment of neighboring uses.

3.1.10. **Availability of reasonable alternatives.** The Center evaluated a large number of options in an attempt to identify a feasible alternative to the skybridge. To date, none appear to be feasible. See Tab 2.

3.1.11. **Effect on traffic and pedestrian safety.** As discussed above, SDOT determined that an unsignalized, at-grade crossing is not safe and a signalized crossing is not warranted. See Tab 7. As a result, a readily accessible skybridge increases the safety of crossing Eastlake Avenue E.

3.1.12. **Accessibility for elderly and handicapped.** As mentioned above, Eastlake Avenue E presents adverse street conditions characterized by high traffic speeds and limited sight distances. As a result, the skybridge will provide a significantly safer way to cross Eastlake. In addition, the design will comply with ADA to aid in accessibility for elderly and handicapped.

- Neighborhood Commercial
- Residential
- Midrise
- Industrial General
- Industrial Commercial
- Mixed Use
- Commercial



MAP: ZONING

SEATTLE ARTERIAL CLASSIFICATIONS

- Principal Arterials
- Mixed Arterials
- Collector Arterials
- Intermediate Freeways
- Access Streets (both residential and commercial)

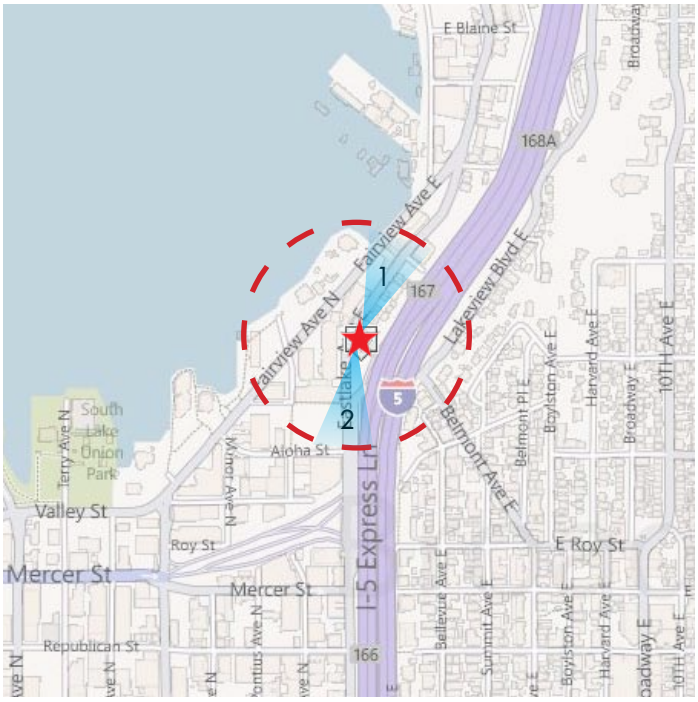
MAP: STREET CLASSIFICATIONS

LAND USE

NINE-BLOCK URBAN DESIGN ANALYSIS

1. View Looking North

2. View Looking South

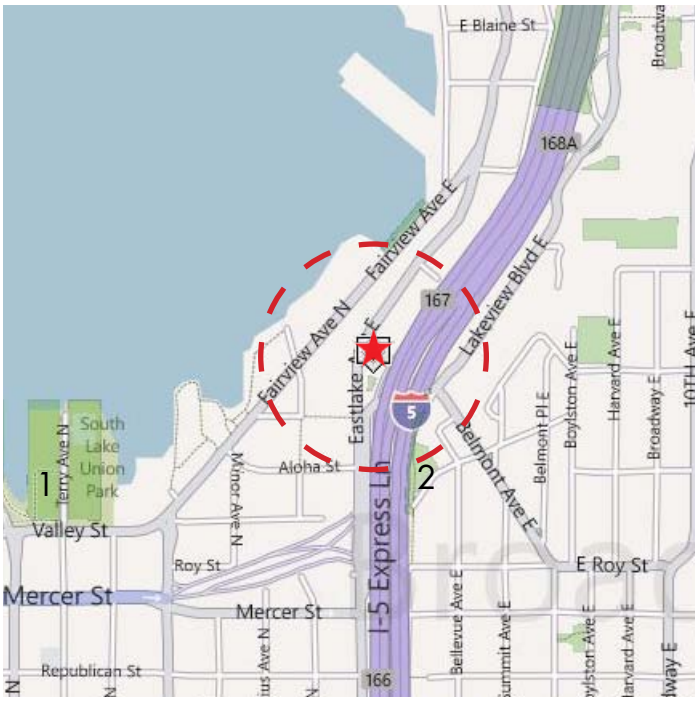


MAP: VIEW POINTS

1. South Lake Union Park

2. I-5 Colonnade Park

Public Parks



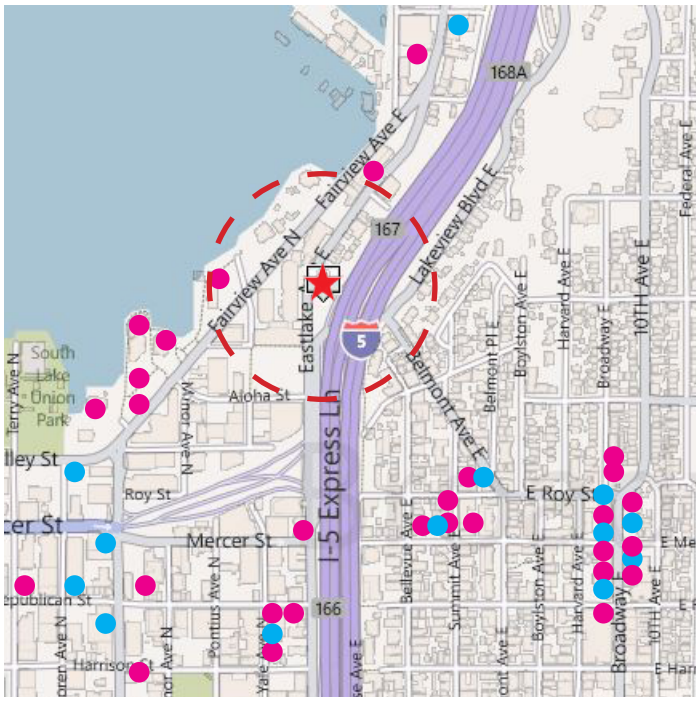
MAP: PARKS

LAND USE

NINE-BLOCK URBAN DESIGN ANALYSIS

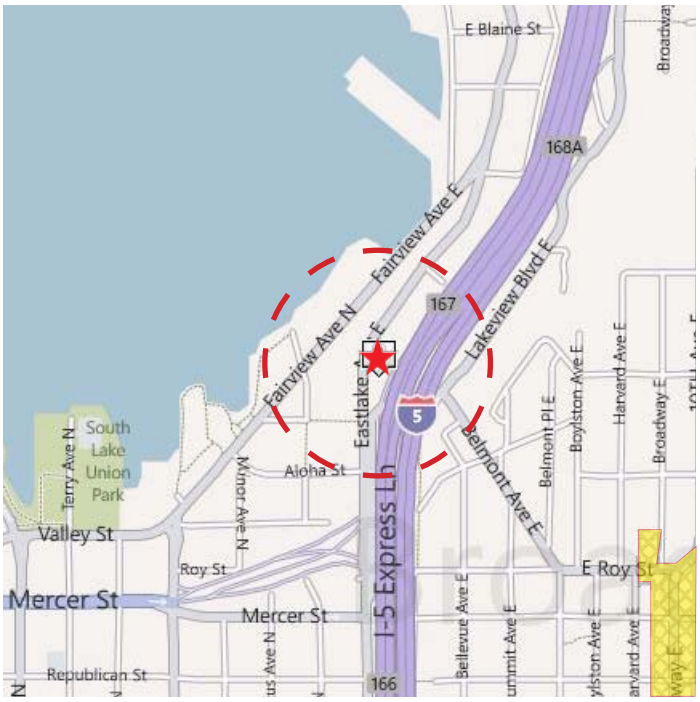
Restaurants

Retail



MAP: RETAIL & RESTAURANTS

DPD Designated Pedestrian Areas



MAP: PEDESTRIAN AREAS

LAND USE

NINE-BLOCK URBAN DESIGN ANALYSIS

- Eastlake Residential Urban Village
- South Lake Union Urban Center
- Capitol Hill Urban Center

MAP: URBAN VILLAGES

10
RESPONSE TO SMC 15.65.050(B) CRITERIA

Seattle Municipal Code 15.64.05B Skybridge Elements Discussions in this Fred Hutchinson Cancer Research Center 1100 Eastlake Building Skybridge Project SEPA Checklist

Section 15.64 of the Seattle Municipal Code provides regulatory guidance for skybridge permits in Seattle. Section 15.64.050B provides a list of elements that are considered when an approval of a skybridge permit is requested.

Below is a list of the elements listed in 15.64.050B and references from this SEPA checklist for the Fred Hutchinson Cancer Research Center 1100 Eastlake Building Skybridge Project that pertain to each element.

Title 15 - STREET AND SIDEWALK USE
Subtitle II Miscellaneous Street Use Regulations
Chapter 15.64 - Skybridge Permits
SMC 15.64.050 Circulation of preliminary application.

B. In making the recommendation on the proposed skybridge, the following elements shall be considered:

1. That horizontal and vertical clearance is adequate;

   Discussion: As indicated in Section A.11 of this SEPA checklist, the skybridge would be approximately 104 feet long, 10 feet wide and 13 feet tall. The height of the base of the skybridge would be approximately 24 ft. 4 inches above the roadway, as shown in Figure 4, and would provide adequate clearance for vehicular traffic.

2. That structural adequacy is insured;

   Discussion: As indicated in Section A.11 of this SEPA checklist, the design and features of the skybridge would comply with applicable provisions of the Seattle Building Code and ADA guidelines.

3. Potential conflict with existing or proposed utilities, street lighting, or traffic control devices;

   Discussion: As indicated in Sections A.11, B.1.E, B.1.F, B.16.B, of this SEPA checklist, installation of the proposed skybridge would require relocation of the existing overhead electrical lines adjacent to the Weintraub Basic Sciences building to a below-grade trench. Trenching activities would require the removal of landscaping and street streets. With the exception of one tree located in the path of the skybridge, any landscaping and trees disturbed by construction activities would be replaced. No other utilities, street lighting or traffic control devices will be affected.

4. View blockage;

Discussion: As indicated in Section B.10.b, of this SEPA checklist, Four major view categories influence viewshed analyses in Seattle: (1) view from SEPA-designated viewpoints, (2) views affecting designated historic structures; (3) view of the Space Needle from designated viewpoints, and (4) views from designated scenic routes.

The proposed skybridge site is not in the vicinity of and does not affect views from SEPA-designated viewpoints, views affecting designated historic structures or view of the Space Needle from designated-viewpoints. Eastlake Avenue E has been designated by the Seattle Department of Transportation as a scenic route. However, the portion of Eastlake Avenue E proposed for the skybridge does not contain views of water (Lake Union) or mountains, and contains only a limited view of downtown. As shown in Figure 5 and 6, the proposed skybridge spans the Eastlake Avenue E roadway but would have only a minimal potential to affect a distant view toward downtown from Eastlake Avenue E.

5. Interruption or interference with existing streetscape;

Discussion: As indicated on in Section B.14.g of this SEPA checklist, construction activities associated with the proposed skybridge could result in temporary disruptions to traffic or pedestrian access to Eastlake Avenue E. Installation of the skybridge structure could require temporary closure of Eastlake Avenue to accommodate construction or parking of construction equipment (including a crane). Sidewalks in the area could also be temporarily closed. Temporary road and sidewalk closures or impacts would be coordinated with the Seattle Department of Transportation to minimize impacts.

As indicated on in Section A.11 to accommodate construction activities/equipment and utility trenching, the temporary removal of street trees and the groundcover adjacent to the Weintraub building and 1100 Eastlake building would be required. Except for one tree directly in the path of the skybridge, all trees and vegetation removed to accommodate construction would be replaced after the completion of construction activities consistent with applicable City of Seattle requirements.

6. Reduction of natural light;

Discussion: As indicated in Section B.6.b of this SEPA checklist, the proposed skybridge would not affect solar access by adjacent properties.

7. Reduction of pedestrian activity at street level;

Discussion: As indicated in Section B.14.g of this SEPA checklist, development of a skybridge would result in the routing of pedestrian traffic associated with scientists and other staff moving between the 1100 Eastlake building and the FHCRC campus west of Eastlake Avenue E to the skybridge. The existing street character currently reflects minimal pedestrian activity and the proposal would not be anticipated to negatively affect existing street level pedestrian character. Further, the Seattle Department of Transportation has indicated that it is unsafe to provide an at-grade crosswalk between the 1100 Eastlake Building and the Weintraub building

8. The number of pedestrians projected to use the skybridges;

Discussion: As indicated in Section A.11, B.8.i, and B.14.g of this SEPA checklist, it is anticipated that the skybridge would be used for up to 1,000 FHCRC scientists/employees trips daily, at all hours of the day and night. As indicated on page 4, for safety and security purposes, the proposed skybridge would be accessible to FHCRC scientists, employees and visitors but would not be accessible to the general public.

9. Effect on commerce and enjoyment of neighboring land use;

Discussion: As indicated in Section B.8.l of this SEPA checklist, the proposed skybridge project would be compatible with existing and projected land uses and plans. The proposed skybridge would create cohesion and connectivity between the medical research conducted in the 1100 Eastlake building and other portions of the FHCRC campus west of Eastlake Avenue E. Development of the skybridge would minimize pedestrian safety issues that would result from scientists and other employees crossing the busy Eastlake Avenue E roadway. No mitigation measures would be necessary.

10. Availability of reasonable alternatives;

Discussion: As indicated in Section A.11 of this SEPA checklist, FHCRC considered the following alternatives to a new skybridge but did not carry them forward because they were deemed to be not feasible or reasonable.

Alternative 1: New Pedestrian Crosswalk – FHCRC analyzed the option of developing an at-grade crosswalk between the 1100 Eastlake building and the Weintraub building. To date, the Seattle Department of Transportation has indicated that they will not approve a new crosswalk at this location due to safety concerns. An August 12, 2011 memorandum from Brian Kemper, Acting City Traffic Engineer, states that SDOT considers an unsignalized crossing at 1100 Eastlake infeasible. A Pedestrian Crossing Analysis by Heffron Transportation found that a signalized crossing is not warranted at this location.

Alternative 2: Shared Tunnel for Service and Research – As a component of a pending request to SDOT, FHCRC explored the potential for a service tunnel to connect the 1100 Eastlake building and the Weintraub building that is intended for transportation of waste materials and other building activities. FHCRC analyzed the option of utilizing the service tunnel for both transportation of waste materials and as a below-grade pedestrian walkway. The service tunnel was determined to be neither a safe nor an effective mode for connecting scientists and staff from building to building. It was determined to be unsafe practice to commingle the waste/supply stream with scientist/staff circulation and could cause injury to persons.

Alternate 3: Separate Service and Research Tunnels North of Stair - FHCRC analyzed the option of widening the proposed service tunnel to include two passageways, one for waste transportation/service and one for scientists/employees. It was determined there is insufficient space available in the Weintraub building to accommodate a tunnel to the north of the proposed Service Tunnel. In addition, there is large mechanical equipment in the tunnel path that further renders this option infeasible.

Further, the route employees would be required to take from the 1100 Eastlake building to the Weintraub building via the service tunnel (take an elevator to the basement on the west side of Eastlake, walk through the tunnel to the basement garage on the east side of Eastlake, locate an additional elevator, and take that elevator to the level of their appointment) would be undesirable. The inconvenient, undesirable route would likely prompt staff to dart across Eastlake Avenue E at an unmarked area and risk personal injury and accidents.

Alternate 4: Separate Service and Research Tunnels South of Stair – Feasibility issues for this option would be similar to Alternative 3 above. It was determined that there was insufficient space available to accommodate a tunnel to the south of the proposed service tunnel due to mechanical equipment in the tunnel path.

Alternate 5: Separate Service and Research Tunnels – Research Connection at South Weintraub: Construction of a service tunnel and research tunnel connecting to the south side of the Weintraub building is considered infeasible because the research tunnel would require open-cut construction that has been stated to be undesirable to SDOT.

Alternate 6: Separate Service and Research Tunnels - Research Tunnel Above: It was determined that there is insufficient space available to accommodate a research tunnel above the proposed service tunnel due to existing utilities located in the tunnel path. SPU stated that they would not allow these utilities to be relocated and would require open-cut construction that has been stated to be undesirable to SDOT.

Alternate 7: Separate Service and Research Tunnels – Research Tunnel Above Slopes Below the Street Utilities: Similar to Alternate 6, construction of a service tunnel and research tunnel that slopes below the street utilities is infeasible because it would not allow FHCRC to provide ADA access to the 1100 Eastlake building. This configuration would require open-cut construction that has been stated to be undesirable to SDOT.

Alternate 8: Separate Service and Research Tunnels – Research Tunnel Above with Escalator: Similar to Alternates 6 and 7, construction of a service tunnel and researcher tunnel with escalators is infeasible because it would not allow FHCRC to provide ADA access to the 1100 Eastlake building. This configuration would require open-cut construction that has been stated to be undesirable to SDOT. Further, this configuration would result in a loss of existing FHCRC program (laboratory) space.

11. Effect on traffic and pedestrian safety; and

Discussion: As indicated in Section B.8.l of this SEPA checklist, the proposed skybridge project would be compatible with existing and projected land uses and plans. The proposed skybridge would create cohesion and connectivity between the medical research conducted in the 1100 Eastlake building and other portions of the FHCRC campus west of Eastlake Avenue E. Development of the skybridge would minimize pedestrian safety issues that would result from scientists and other employees crossing the busy Eastlake Avenue E roadway.

As indicated in Section B.14, the proposed skybridge project would have no effect on traffic on the roads surrounding the site area.

As indicated in Section A.11 and described in Item 10 above, FHCRC analyzed eight different alternatives to construction of a skybridge and determined that all eight were infeasible due to pedestrian, traffic safety or ADA accessibility concerns.

12. Accessibility for elderly and handicapped.

Discussion: As indicated in Section A.11 of this SEPA checklist, the design and features of the skybridge would comply with applicable provisions of the Seattle Building Code and ADA guidelines.