STITCHING BACK SEATTLE
Design Criteria Toolkit

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First we shape the cities then they shape us.
- Jan Gehl
This tool kit was developed by Eugenie Hsueh through the Community, Environment, and Planning (CEP) program in the College of Built Environments at the University of Washington in Seattle, Washington, USA. This project was supported by UW faculty, CEP students, and the Lid I-5 campaign.
EXECUTIVE SUMMARY

This toolkit is the end product of the Senior Capstone that was required for the Community, Environment, Planning major in the Urban Design and Planning department of the College of Built Environments within the University of Washington. It was created through my senior project that focuses on the safety and accessibility of pedestrians in public spaces.

For this project, I am answering the question of what it really means for public spaces to be safe and accessible for pedestrians. Based on the definition and usages of public space, I have researched and defined what it means for pedestrians to be safe and have access to public spaces, and how safety and accessibility are connected. My project focuses on understanding the pedestrian experience in public spaces through analyzing the Danish Architect, Jan Gehl’s, 12 Key Quality Criteria tool kit.

This toolkit was created based on the analyzation of the 12 Key Quality Criteria. Through analyzing and visualizing the different criterias by providing ‘before & after’ of various precedents as examples, this visualized toolkit aims to provide a better understanding of each of the criteria and how each criteria would look like if we were to really utilize the toolkit while designing a space.

Disclaimer: This toolkit is by no means a design toolkit or concept design for the Lid I-5 sites. This toolkit serves only to provide visual examples of what Gehl’s 12 Key Criteria means.
WHAT IS A TOOLKIT?

A toolkit is a set of resources, abilities or skills that is available for personal use or for public usage. A toolkit doesn’t necessarily have to be a set of physical tools, guidelines or rules can also be used or seen as toolkits. The purpose of a toolkit is to help the user understand the issue one is facing or is trying to solve, to guide the user through steps of processes, and to provide information on the issue or problem to help the user.

A toolkit should be used to help support and strengthen the decisions made by the user and the evaluation created based on the what the user experiences. While utilizing a toolkit, it is important to understand that there are no limits or restrictions to how well or how many requirements or guidelines on the toolkit were fulfilled. It is, however, important to keep in mind that toolkits serve as a notice, a reminder to users of the evaluation of their chosen site or area.
INTRODUCTION | Lid I-5

For more than 60 years, people have been looking for ways to reconnect Seattle, to bring back the seamless streets, to reconnect neighborhoods to the city, and moreover, create a more walkable and safe Seattle.

In the midst of various efforts to repair the scar caused by the I-5, a group called Lid I-5 flourished. Focused on placing lids on top of different I-5 sections to reconnect neighborhoods, the group aims to not only provide connectivity between neighborhoods, but also provide new and open public spaces for dense urban areas without buying new land.
As Scott Bonjukian, the co-chair of Lid I-5, argues, “Evoking the path of the motorist that I-5 is, the lids can also become a linear pathway for pedestrians.” Pedestrians need to feel safe while traveling across and within the placed lid as well as having easy access to and from the space.
WHAT IS A PUBLIC SPACE?

The ability to access a place and to feel safe in a place is essential for everyone, regardless of age, gender, race, religion etc. Public Space is an open space everyone should have access to and anyone is allowed to utilize. An identification provided by the American Planning Association, is that a public place helps promote social interaction and a sense of community whether it’s a gathering spot or part of a neighborhood, downtown or another area within the public realm. It is not to say that public space needs to be a specific open area or a site that has boundaries, but rather, it could also be an alley, a rooftop, or simply a street and intersection that we see everyday. We all use and approach public space differently depending on who we are, where we are, and what we perceive the space as.
Cities are now, as Gehl said, more concerned about balancing the users need of mobility, through implementing several theories provided by various planning and design professionals such as William Whyte, Allan Jacobs, David Lynch and Jan Gehl as well as social critics like Jane Jacobs, planners can now focus on ensuring a safe, comfortable, and enjoyable space for people living in the city.

“It is best,” as Gehl argues “to view a city at eye level with the speed of human power, namely a city that is designed for the pedestrians.” As Kevin Lynch said, through planning and designing city streets, our aim is about “achieving the humanization of city sidewalk”.

Sønder Boulevard, Copenhagen, Denmark
PEDESTRIAN SAFETY AND ACCESSIBILITY

Safety, a wide concept that can range from being safe within the physical environment to being safe during the process of getting to the destination, is an important aspect in pedestrian mobility. Accessibility to places for pedestrians is an important factor that is included and connected to the safety of pedestrians. Having safe spaces and being able to access them also means having good walkability.

An unsafe environment will reduce the accessibility and willingness of access from pedestrians, similarly, low accessibility rates will in turn generate a perception of environment being unsafe. Pedestrians as the main users of urban streets and public spaces, move through and out of public spaces using connected streets. Pedestrians are not only looking for a safe space, both being safe from vehicles and from crime, to be in, but also a safe and accessible space to arrive and leave in.
Like Allan Jacobs once said, “When streets become unsafe, it is almost always when the pedestrian realm does not exist.”

When a public space fails to provide a safe environment, or portray the atmosphere of safety, people will generally avoid going to the site, especially pedestrians, as they are the ones moving the slowest in terms of mobility.
Accessibility is one of the main indicators of whether public space is approachable and welcoming. Whether it’s commuting home, to parks, or another public space, accessibility, including walkability, route options, and safety are three main reasons people take into consideration and find the best combination for themselves.

Another incentive to encourage pedestrians in frequenting and using the space is through providing easy access to urban public spaces. A woonerf or an all-way crosswalk, for example, could be part of the accessibility solution to a desired public space.
The concept of Woonerf is about providing space for cars while fully accommodating the needs of residents or rather pedestrians, where pedestrians would have priority over cars.

Implementing woonerf concept streets can be an option for providing a safe environment and higher accessibility to public spaces in dense urban areas.

The concept of an all-way crosswalk is to give priority, higher safety, and better prevention of accidents for pedestrians.

Implementing all-way crosswalks is an option that helps raise awareness of pedestrian activity for drivers while at the same time giving the streets back and keeping it safe for pedestrians.
As this project aims to seal the scar that I-5 created, the scar that separated the neighborhoods in the city, the inconvenience in mobility and access for the residents, it is a vital aspect to understand how the city works, how the people living in the city are interacting with the city, and how the environment is reacting to this relationship.

“Streets and sidewalks,” as Jane Jacobs, a journalist and activist known for her influences on urban studies, says, “as the main public places of a city, are its most vital organs.” Creating urban streets that are not only functional but also welcoming are important factors in encouraging people to utilize the space and increasing their willingness of frequenting the space in their daily lives. Similarly, in Whyte’s study, The Social Life of Small Urban Spaces, he discovered, through experiment, that just by having public space present is not enough to encourage usage, having human-scale design as well as amenities that are pedestrian-friendly are vital when it comes to creating a vibrant and functional public space.
Allan Jacobs, once said, in his book ‘Great Streets’, “First and foremost, a great street should help make community… A great street should be a most desirable place to be, to spend time, to live, to play, to work… Streets are settings for activities that bring people together.”

To create a safe and accessible space for all gender and ages, it is necessary for planners to take into consideration how the street leading to the space is designed and used.
Jan Gehl, a Danish architect and urban design consultant, listed the three categories: Comfort, Enjoyment, and Protection in the Urban Quality Criteria as an assessment to create desirable and vibrant public spaces.

The 12 quality criteria, or the Gehl Method, created by Gehl in the 1960s, have been used widely as the guideline for creating and designing public spaces in the urban context where people have higher needs of functional and desirable open spaces. These criteria, based off of Gehl’s research, helps define the experiences of everyday life within the public realm as well as how the design and relation of buildings and spaces can help enhance that experience.
“First life, then spaces, then buildings - the other way around never works....Cities must... reinforce pedestrianism as an integrated city policy to develop lively, safe, sustainable and healthy cities.”

Jan Gehl | Life Between Buildings

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As Gehl mentioned, in ‘The Public Life Diversity Toolkit 2.0’, “An inviting space that encourages public life has elements of protection, comfort, and enjoyment.”

In the toolkit created by Jan Gehl, there are 3 categories, protection, comfort, and enjoyment. Each of the category includes different criterias and each of the criteria covers one aspect of the various human interaction and experience within a public space.
## VISUALIZED ANALYSIS | 12 KEY QUALITY CRITERIA

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To encourage pedestrians to utilize public spaces, protection against climate, environment, and other human-created actions are essential and required. People need to feel safe, secured and protected while present in an open space, the need for basic protection needs to be fulfilled.

The three criterias in this element includes: protection against traffic & accidents, protection against crime & violence, and protection against unpleasant sensory experiences. These three criterias provides a well-rounded description of what good protection is as well as defining what kind of protection is needed for pedestrians.
Against Traffic & Accidents

Texture pavements
- Increases awareness of drivers in shared streets
- Enhances opportunity for ‘Intuitive crossing’

Widened sidewalks
- Offers clear pedestrian activity
- Provides a safe and comfortable space allowing pedestrian to see and observe traffic condition
- Encourages ‘Active streets’

Planting strips
- Provides visual separation between roads and sidewalks
- Avoids possible accidents
Texture pavements
- Offers a safe and easy connection to, from, and in-between for pedestrians
- Provides designated route for pedestrians

All-way crosswalk
- Decreases accident rates and run-over
- Provides priority for pedestrians
- Allows ‘Intuitive crossing’

Curb extensions
- Increases pedestrian visibility
- Encourage slower turning speeds
Street furniture
- Allows opportunity for people-watching as well as ‘eyes on the street’
- Separates pedestrians from traffic

Elevated sidewalk
- Provides clear division between road and foot traffic.
- Increases awareness of pedestrian activity

Without parking spaces
- Allows smoother through-traffic
- Opportunities for clear view of surrounding

Bulevardul Ion C. Bratianu, Bucharest, Romania
Shared street
- Prioritizes pedestrians and provides more space for pedestrians
- Helps mitigate traffic
- Encourages support for local economy

Street landscape
- Separates pedestrians from traffic
- Increases awareness of pedestrian activity

No Parking zone
- Increases level of ‘eyes on the street’
- Allows smoother through-traffic
Against Unpleasant Sensory Experiences

**Reutilized space**
- Offers better view and protected environment
- Allows and increases pedestrian activity

**Actual sidewalk**
- Provides safe and designated pedestrian area
- Increases usage rate of space

**Street landscape**
- Offers better sensory experiences
- Provides functional space for pedestrians while assisting in wayfinding
Extended Curbside
- Opportunity for clear view of surrounding
- Increase pedestrian visibility
- Encourage slower turning speeds

Redesigned sidewalk
- Clear division between street and sidewalk
- Helps mitigate through-traffic

Business Activities
- Increases sensory experience of pedestrians
- Offers opportunity to enjoy environment
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People are generally attracted to places they are comfortable being at, whether it’s sitting, standing, walking, or talking to others, people want to be in an environment that makes them feel comfortable and welcomed. For an environment to be welcoming, inviting, and comfortable to everyone, it is essential to understand the need of every user and provide different usages for different purposes.

The criterias in this element include: **opportunities to walk, opportunities to stand and stay, opportunities to sit, opportunities to see, opportunities to talk and listen, and opportunities to play and exercise.** Each criteria has its own focus and are equally important in providing comfort for users within a space. In this category, the various opportunities are determined through the measuring of distance, amount of facilities, and types of facilities.
Opportunities to Walk

Repurposed Sidewalk
- Elevated sidewalk provides clear distinction between road and foot traffic
- Widened sidewalk provides safe and usable environment for pedestrians

Crosswalk
- Increases awareness of pedestrian traffic
- Provides better connection between spaces

Street landscape
- Enhances visual separation between car and pedestrian zone
- Increases opportunity for outdoor activities
Connected Open Space
- Different pavements increases awareness of pedestrian activity
- Providing a functional space increases usage of space

Crosswalk
- Increases awareness of pedestrian traffic
- Provides better connection between spaces

Elevated Curbside
- Enhances visual separation between road and foot traffic
- Shorten crossing distance by adding ‘bump-outs’
Opportunities to Stand & Stay

Connected sidewalk
- Connected sidewalks increases the possibility of people visiting the space

Patio space
- Offers opportunities to stand and stay within the environment
- Provides designated space for people to utilize the space

Furniture
- Providing a functional space increases usage of space as well as opportunity of people staying
Redesigned sidewalk
- Widened and protected sidewalk creates a safer environment for standing

Crosswalk
- Allows people to make connections from different directions
- Adding mid-section islands increase ‘intuitive crossing’

Open Space
- Protected open space offers opportunities for hangouts and meet ups
Opportunities to Sit

Street furniture
- Offering seating increases possibility of people utilizing the space
- Turns space into a functional social space
- Designed seating and landscaping enhances the character of the space and communicates place branding

Functional open space
- Reutilizing space increases opportunities for community connection and engagement
- Creating a functional space adds on to the identity of environment
Redesigning space
- Utilizing empty space increases opportunities of people spending time in space
- Adding function into space creates possibility for new purposes

Green Infrastructure
- Offering seating increases possibility of people utilizing the space and amount of time people spend within the space
- Designed seating and landscaping enhances aesthetics of the environment
Opportunities to See

**Redesigned sidewalk**
- Open space offers opportunities to utilize the space based on people’s needs
- Widened sidewalks create more space for pedestrians and decreases possibility of eye sight being blocked by corners

**Reconfigure vehicular traffic**
- Creating better system of turning lanes offers a clearer view of surrounding
- Connected streets allows unblocked view of surrounding environment
Shared Streets
- Reorganizing street connection increases foot traffic in neighborhood
- Widened sidewalk offers opportunities to see further and from different angles

Texture pavements
- Allows clear view of pedestrian activity
- Raises awareness of driver by distinguishing right-of-way

Streetscape
- Lower shrubs allows clear view of surrounding
- Visible street light provides better and clearer view
Opportunities to Talk & Listen

Widened sidewalk
- Widened sidewalk offers opportunities to talk and listen to one another
- Creates a safe environment for people to make conversations
- Encourages support for local business

Shared street
- Increases the opportunity to make small conversations
- Enhances the connection between spaces
- Easier to hear one another as traffic mitigation lowers volume of cars
Redesigned sidewalk
- Widened sidewalk offers opportunities to spend time in the space and talk

Open space
- Provides a safe space for people to meet and talk
- Enhances the connection between spaces

Street furniture
- Seating encourages people to utilize space and make conversations
- Poles enhance safety of environment which encourages people to utilize the space
Opportunities to Play & Exercise

Open space
- A bigger and connected environment makes it easier and safer for people to play and exercise
- Encourages people to utilize the space in neighborhood

Street landscape
- Planters and poles creates safe environment to play and exercise
- Street light increases safety level for play and exercise

Patterned pavements
- Indicates designated areas for foot traffic that is ideal for play and exercise

Place Peter Benoit, Brussels
Open space
- Utilizing empty space encourages people to utilize the space in neighborhood
- Connecting sidewalks allows opportunities for exercises and to play

Street furniture
- Furniture encourages people to utilize and spend time in space
- Planters and poles provides and enhances safer environment to play and exercises
- Painted area increases awareness of activities
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People spend time in an environment because they enjoy being in the environment where they can get positive and good aesthetics and sensory experiences. People feel good when they are within an enjoyable environment, an environment that provides human-scale elements and is designed according to the local climate. For an environment to be enjoyable, having human-scale elements provides visitors a sense of security without feeling lost as well as a sense of belonging compared to being surrounded by buildings or objects that are higher and bigger for an average person to use.

The criterias in this element include: **dimensioned at human scale, opportunities to enjoy the positive aspects of climate and aesthetic qualities and positive sensory experience.** The three criteria are the basis of what an enjoyable environment should have and provide, based on the different locations and demographic of the area, there will be different emphasis on each of the criterias.
**Dimensioned at Human Scale**

**Open space**
- Human scale elements increases the opportunity of people utilizing the space
- Adding human scale structures within vacant space enhances connection of people to environment

**Street furniture**
- Human scale furniture increases chance of people utilizing space
- Providing human scale structures for all age groups fosters connection between people as well as with the surrounding

**Village Pied du courant, Montreal, Quebec, Canada**

Images: Pépinière & Co.
Community space
- Connected space ensures a safe and easy connection to, from and in-between
- Human scale structures add functionality of space allowing members of community to utilize space

Street furniture
- Human scale furniture helps turn an open space into a social space for community members
- Human scale structures transforms streets into active streets through creating a vibrant and safe environment
Opportunities to Enjoy the Positive Aspects of Climate

Active Street
- Widened sidewalks creates a safe and connected space for people
- Open space allows people to spend time outside when weather is nice

Street landscape
- Functional human scale structure enhances the sense of a welcoming environment
- Offering seatings within a protected and designated space allows more opportunity to enjoy positive climate
Open space
- Protected and functional space allows and invites people to spend time outside when weather is nice
- Redesigning the space provides an option for people to choose from

Street furniture
- Pedestrian oriented lighting allows people to utilize the space day and night or in the dark
- Green infrastructure enhances the visual quality of the environment
Aesthetic Qualities and Positive Sensory Experiences

**Active space**
- Protected and functional space allows and invites people to spend time outside
- Redesigning the space provides an option for people to choose from when they go out or need to meet others

**Street furniture**
- Redesigning an empty space enhances the view people see as well as building a better connection between the neighborhood and the environment
Functional space
- Connecting spaces increases the willingness of utilization as well as aesthetics

Street landscape
- Providing well maintained green space increases the sensory experiences of people using the space
- A cohesive, clean, and open space increases the sensory experiences of people
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Lid I-5 UTILIZATION & ENVISIONING

Having a better understanding of what the 12 Key Quality Criteria means and looks like visually, how do we utilize the toolkit while designing the Lid I-5 site?

Imagine yourself walking across the I-5, what would you envision the environment be? As a newly built and established space, what would you expect to be within the space, or rather, how would you design the space yourself?

Provided are three different envisionings of the different sections of I-5, the North, the Central, and the South. Each section has a different purpose, the North is aimed to provide a vibrant and comfortable space, the Center is aimed to connect to the Capitol Hill Neighborhood, and the South is aimed to connect and reutilize Freeway Park, to provide more green space for the city.

With further explanation of the central section, of which I focused my study on, the precedents draws a clearer image of what the Lid could become like.
Protection

Imagine

- Walking and crossing on Pine st. without fear
- Ability to see surrounding environment with no hidden spots
- New parks and streets providing the ability and opportunity to walk alone at night
Imagine

- With a new street in between buildings and having the ability to walk freely and comfortably on the street
- Opportunity to see and to talk and listen
- Opportunity to stand/stay in a comfortable environment
- A new downtown park providing the opportunity to sit as well as to play & exercise within a safe and protected space
Imagine

- Having a small park built next to Olive Way with human scale elements in an enjoyable environment
- Opportunity to enjoy the nice weather when possible
- Ability to enjoy the aesthetics of the environment while enhancing the sensory experience
Communal spaces provide a sense of belonging.

Green spaces increase livability of city while providing a more comfortable environment for residents.
Mixed-use streets propagate vibrant environments.

Outdoor retail spaces provide a designated area for pedestrians with people’s interests in mind.
§ Revitalize Freeway Park through connecting and enhancing spaces

§ Creating functional, connected, and safe public spaces opens up more possibilities
Adding meaning or purpose to spaces increases rapport and understanding.

Connections for both space and people enhances social vibrancy and livability of area.

South
Through utilizing and understanding the 12 quality criteria, what would work best in Seattle, especially within the context of Lid I-5?

Woonerf, also known as the Dutch ‘living street/yard’, would be a good example of what would work in Seattle and a good fit for the Lid I-5 site.
A woonerf is essentially a shared street between pedestrians and cars. As J.H. Kraay, researcher from SWOV of Netherlands said, “...first and foremost, the functions of a residence, meeting place, playground and walking area (the yard function).”

In Seattle, a woonerf would be the perfect fit where pedestrians are prioritized but cars still have their right of way with a lower speed limit.

It would be, basically, a commercial shared street, where cars would still be allowed but pedestrians are the main group of users that the space is targeted towards.
APPENDICIES | Bibliography


APPENDICIES | Photo Credits

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