

# Human rights to the street: Ethical frameworks to guide planning, design, and engineering decisions toward livability, equity, and justice

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**Abstract:** Recently, there has been a renewed interest in statements about people’s rights to our streets. Drawing broadly from the literature and from an examination of a comprehensive collection of these rights, this article works toward establishing a comprehensive ethical framework that can be used to guide planning, design and engineering decisions to support pedestrian rights for street and urban livability. To identify and propose these ethical principles and help achieve optimal livability for individuals, groups and society, we: (a) comprehensively examine the literature to clarify the various concepts of street livability and human rights to the street (as related to a collection of various pedestrian rights statements); (b) explore what is being said in these rights to better understand people’s needs and wants; and (c) provide a roadmap for planners, urban designers, and engineers to address these needs in practice. Building on the previous steps and incorporating business practice literature of Functional Area Ethics, relevant functional areas are identified to help professionals act in support of these pedestrian rights.

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## 1 Introduction

“[B]eing all equal and independent, no one ought to harm another in his life, health, liberty, or possessions.” —John Locke, *Second Treatise of Government*.

John Locke was a leading philosopher from the Enlightenment period and argued for our public responsibility to protect people’s individual human rights. Many of these ideas were later articulated in the United States Declaration of Independence by Thomas Jefferson as the right to “life, liberty, and the pursuit of happiness.” At the beginning of the 20th Century, modern-day planning emerged, motivated by similarly progressive values around protecting people from the harms caused by overcrowded and polluted conditions of the industrial city. While this modern planning focused on health and nuisance regulations overcame many of these harmful conditions, many new and unintended problems emerged as well—such as the rise of auto-domination that has undercut street and community livability (Appleyard, 1981). Cities became more divided by income and social group, and streets were given over to automobiles. Architects and engineers, from Le Corbusier to Robert Moses, made economically-driven

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arguments that faster speeds, wider thoroughfares made for more efficient automobility, resulting in sprawling developments and induced driving behavior. This led to provide engineering standards that supported automotive levels of service over other modes of travel—most notably in opposition to the basic design attributes of what make cities both walkable and livable. While moves toward “complete streets” have raised awareness about the importance of street design for walking and cycling, standards and policies range widely based on location, and it is worth clearly establishing the rights citizens have to safe pedestrianism and walkable streets.

In this light, we review of a collection of various statements that articulate the rights people have to harmless and humane streets and cities. We then link these rights to the design, operation, and behaviors in and around our streets, as well as our greater urban structures. Finally, drawing from the business school literature on Functional Area Ethics, we develop a framework around three main functional activity areas for: (a) professionals (engineers, planners, and designers) and their professional guidelines and practices, (b) actors (drivers, pedestrians) and their common practices, and (c) enforcers (police, the courts) and their legal structures).

In summary, this article works toward a comprehensive ethical framework to guide planning, design and engineering decisions by proposing ethical principles to help support livability and humanity in and around our streets. Specifically, we have: (a) comprehensively examined the literature to clarify the various concepts of street livability and human rights to the street (as related to a collection of various pedestrian rights statements); (b) examined in depth what is actually being said in these rights to better understand people’s needs and wants; and (c) provided a roadmap for planners, urban designers, and engineers to address these needs in practice. While this effort is supportive and complimentary of the complete streets research and policy, we this effort as extension of how these professionals can continue to advance policies that not only support pedestrianism but prioritize it as the preeminent form of zero-emission travel in our cities. To advance this goal we take advantage of the business practice literature on Functional Area Ethics, identifying relevant functional areas in order to help professionals and other actors take the necessary steps in support of these Pedestrian Rights.

## **2 Background**

### **2.1 Defining livability for streets and cities**

Important research defining street livability was conducted in the 1970s by Donald Appleyard, making important findings on how neighborhood exposure to traffic degraded many aspects of quality of life (Appleyard, Gerson, & Lintell, 1981). These findings related to how traffic degraded people’s ability to make social connections within their neighborhood. Streets with moderate and heavy traffic generate fewer social interaction and are perceived as less livable. Concepts of livability since this seminal work have expanded to capture a broader range of quality of life outcomes, not just for streets, but whole cities and regions (Appleyard, Ferrell, & Taecker, 2016).

More recently in 2009, US Department of Transportation Secretary Ray LaHood provided a simple 12-word definition of livability: “If you don't want an automobile, you don't have to have one (Schor, 2009).” This and similar declarations distill livability down to serving diverse needs with diverse choices (UTC Spotlight Conference, 2011). Yet, to a great degree, the literature on livability for planners, designers and engineers does not deal directly with people, but focuses primarily on places—in particular, the physical and spatial characteristics required for places to be considered livable.

Broadly speaking, definitions of street and urban livability found in the literature typically focus on either the physical features of livable places or on the benefits that livable places offer people. People

are usually identified as “the public,” but some definitions also refer to specific types of people, such as residents, workers, or families. The central importance of “people” to livability is also reflected through references to choice (Sustainable Communities, 2009; U.S. Department of Transportation, 2010), opportunity (Clinton-Gore, 2000; FHWA, 2012; Litman, 2011; Partners for Livable Communities, 2012; VanZerr & Seskin, 2011), and quality of life (AASHTO, 2010; Litman, 2011; VanZerr & Seskin, 2011). Building on these themes, we proposed (in a previous publication) the following foundational concept for an ethical framework for livability achievement that revolves around access to opportunities (Appleyard, Ferrell, Carroll, & Taecker, 2014).

## 2.2 The role of ethics in livability and transportation justice

However, there are important social equity considerations in how we provide *livability opportunities*. For example, it can be argued that in a diverse society, two people will not perceive environmental and social qualities the same, will not seek the same engagement, and will not seek the same modes of human transport or living. Inspired by Beatley’s work on land use ethics (Beatley, 1984, 1989, 1991, 1994; Beatley & Jacobs, 1995) and Rawls’ theory of a just society (Rawls, 1979), an earlier articulation of Livability Ethics was proposed to guide our work to equitably achieve societal livability by mediating between “livability pursuits in conflict” with designs to protect the needs of the vulnerable and powerless—which can include vulnerable modes of travel, such as pedestrians and bicyclists. Protecting and promoting the needs of vulnerable and powerless groups and modes can lead us toward achieving what we can term as a form of *Livability*-, or even *Travel-Justice* (Appleyard et al., 2014).

Based on this earlier work, the task of pursuing livability — and by extension humanity and human rights in and around our streets — could build on the overarching definition of *livability*. Following the framework of the UN’s Brundtland Commission (Brundtland, 1987), Appleyard et al. in their 2014 article introduced the concept of *Livability Ethics* (Appleyard et al., 2014), suggesting that an equitable definition of livability is when:

*People have equal and comfortable access to opportunities to improve and/or maintain their desired quality of life.*

Similar to the Brundtland Commission’s definition, there are meta principles stating that we must also,

*Prioritize the needs of the vulnerable and less powerful.*

This definition, meta-principles, and our later discussion of rights hinges around a discourse related to needs of the less powerful—specifically in this case the needs of pedestrians and bicyclists. In summary, the following is meant to help guide planning, design and engineering decisions to equitably optimize a society’s overall livability achievement through a *Livability Ethics for Livability-Justice* framework (Appleyard et al., 2014).

## 3 A framework for human/pedestrian rights

Building on the above discussion of livability, ethics, and human rights, this section evaluates a collection of bills of rights gathered by Levinson, including an overarching Pedestrian Bill of Rights created by synthesizing feedback from online readers (Levinson, 2018). A framework used for this evaluation

comes from the business practice literature on Functional Area Ethics (*Functional Area Ethics - Business Ethics*, n.d.).

Early conceptions of street bills of rights emerged in the 1970s, providing broad concepts of what streets and cities should be. For example, some of the rights listed in Breines and Dean's 1974 book *Pedestrian Revolution: Streets Without Cars* states that "the city shall not harm the pedestrian," and "to reduce dependence on the automobile, city and suburban residents shall have the right to convenient, clean and safe mass transportation" (Breines & Dean, 1974).

Donald Appleyard's 1981 "Statement of Street Dwellers Rights" in *Livable Streets* (Appleyard et al., 1981) provided these broad headings, accompanied by detailed narratives for each one.

- The Street as a Safe Sanctuary
- The Street as a Livable, Healthy Environment
- The Street as a Community
- The Street as Neighborly Territory
- The Street as a Place for Play and Learning
- The Street as a Green and Pleasant Land
- The Street as a Unique Historic Place

In 1987, LA Walks provided a bill of rights with a notable focus on aesthetics and the ethics of how professionals should respond to increasing pedestrianism (Los Angeles Walks, n.d.). More recently, other pedestrian advocates, such as Mexico's Liga Peatonal created an illustrated Charter of Pedestrian Rights in English (Liga Peatonal, n.d.). It says things like "Spacious sidewalks" "Suitable street furniture," and suggest more specific design elements. Christopher Dolan, a lawyer in San Francisco, created another pedestrian bill of rights (Dolan, n.d.), focusing more specifically on the various tasks and encounters of navigating city streets, such as crossing, or walking and/or bicycling along. Dolan also includes more specific descriptions of the quality of the street environment. For example, the National Street Service: Jaywalker's bill of rights, says: "The right to stop, sit, recline, and rest without harassment or intimidation" (National Street Service, n.d.).

To get an overall sense of these pedestrian bills of rights, we created the following word clouds based on various rights statements that already exist. The word cloud on the right includes all the words of various rights statements, while the one on the left refines the themes by removing words too closely aligned with the topics and some of the common elements—a standard qualitative coding technique. The words that were removed include "street," "streets," "right," "rights," "pedestrian," "pedestrians," "shall," and "ethics." This allowed for more robust themes to emerge.

As shown in Figure 1, the word cloud on the right focuses on issues pertinent to the experience of the pedestrian—those things that shape the essential components of a pedestrian bill of rights. The word cloud focuses on cars and drivers, the barriers (and perhaps technology) that limits the ability of pedestrians to exercise their rights to move through and access space and place.



In a future with autonomous, automated, or software driven vehicles, programmers and vehicle engineers also become relevant actors. While this list is not necessarily complete and is temporal in nature, it provides a framework for discussion. There are many participants in the experiences of the street and all have a window into the dialogue of our shared street livability ethic.

## 4 Discussion

What are the stated rights of these participants by functional area (professional, actor, enforcement)? They have been articulated in many different contexts and plans, and we summarize and discuss them here (see Table 1).

### 4.1 Professional ethics: Engineering, planning, & design

#### 4.1.1 Getting people safely and comfortably across the street

This functional area addresses the needs stated in rights related to how professionals should provide adequate, safe and comfortable space and facilities for pedestrians and bicyclists to cross the street. All bills of rights reviewed provide something to protect this right, usually as one of the first rights listed, and in some case multiple times (Dolan, n.d.). For example, pedestrians have the right to “Cross the street calmly and safely” (Liga Peatonal, n.d.). There are others like Dolan’s (Dolan, n.d.) stating that pedestrians shall have “The Right-Of-Way When Using Crosswalks,” and LA Walk’s Bill of Rights saying pedestrians will be provided “Safe roads and safe places to cross the street.” Finally, one of Levinson’s Bill of Rights (Levinson, 2018) states that: “Any pedestrian may cross roads at any point at any time where they will endanger neither themselves nor others by doing so.” Accompanied by the hashtag “#JaywalkingIsNotACrime.”

#### 4.1.2 Getting people safely and comfortably along the street

This functional area addresses needs stated in rights related to providing adequate, safe, and comfortable space and facilities for pedestrians and bicyclists to travel along the street. This relates strongly to global engineering and vision zero effort to support a safe built environment with crosswalks, bulbouts, and related infrastructure at the same time as encouraging pedestrian behavior (McCann, 2008; Riggs, 2011; Riggs, 2016). Work by those such as Ewing, Cervero, and Handy talk about the land factors that go in to this facilitation (Ewing & Cervero, 2010; Handy, 1996). This is reinforced by researchers like Schlossberg and Ruiz who detail how aspects of the built environment shape pedestrian safety but also how lively and comfortable a street can be for pedestrians (Ruiz-Apilanez, Arnaiz, & de Urena, 2015; Schlossberg, Rowell, Amos, & Sanford, 2015). This includes not only appropriate sidewalks and places for resting but the use of parking and curb space to create more awareness and attentiveness to yielding.

In terms of statements about the rights to this space, most rights statements directly touch on this as well, whether it be adequate space for pedestrians, or bicyclists. For example, Breines and Dean’s 1974 Bill of Rights include many elements within this functional area, especially when they focus on pathways that are, “separate from trucks, buses and automobiles” (Breines & Dean, 1974). Furthermore, Levinson’s new Bill of Rights, states: “The space on a right-of-way allocated per pedestrian shall be no less than space allocated per traveler by vehicle.” He accompanies this with the hashtag “#SpatialEquity.”

#### 4.1.3 Calming traffic speeds and flows

While speed and traffic flow are critically important to the safety and livability of our streets, it is often referenced in slightly indirect ways in these bills of rights. For example, “Cross the street calmly and safely” or “The right to cross without intimidation from motorists, whether in the crosswalk or not” both imply slower speeds and lower traffic flows. One exception is the National Street Services more direct prescription for pedestrian’s “right to lower motorists’ speed.”

Finally, Donald Appleyard’s statement of people’s right to a “Street as a Safe Sanctuary” relates to all three of the above functional areas: Getting people safely across, along, and calming traffic speeds and flows (Appleyard et al., 1981). Likewise as referenced before there are many engineering strategies that have been used globally to facilitate more calm streets and related policies; from trees, to the number of windows, to appropriate modal separation to traffic flow (Ewing, Hajrasouliha, Neckerman, Purciel-Hill, & Greene, 2015). A growing body of work even discusses the advantages of two way streets for calmer traffic and a safer pedestrian experience (Riggs & Gilderbloom, 2016, 2017).

#### 4.1.4 Livability, health, amenities & aesthetics

This functional area addresses needs stated in rights related to sensory qualities of the environment, addressing rights that deal with how a street should work to make people feel comfortable and secure (Los Angeles Walks, n.d.), as well as providing a healthy environment (Breines & Dean, 1974). This functional area also includes actions for placemaking and the provision of amenities for socializing, relaxing, rejuvenation (via adequate space, street furniture, vegetation, art, etc.). Along these lines, we can include building, planning, and design that provides human-scale, enclosure, memorability, transparency, etc. as discussed by Handy and Ewing in their study uncovering important urban design qualities for pedestrians (Handy, Boarnet, Ewing, & Killingsworth, 2002).

For example, the Los Angeles Walks’ Pedestrian Bill of Rights (Los Angeles Walks, n.d.), provides quite a few rights dealing with these sensory qualities, including appeal, safety and comfort, saying the people of Los Angeles have the right to:

- Pedestrian-oriented building facades, trees, flower stands, trash cans, awnings, etc.
- Safe and comfortable bus stops and public transit stations (also be a part of Access)
- Appealing use of landscaping and available open space
- Access to streets and buildings for disabled people
- Clean surroundings, requiring removal of graffiti and advertisements from public property
- Public works of Art

Furthermore, Breines and Dean’s 1974 Pedestrian Bill of Rights (Breines & Dean, 1974) include many elements within this functional area, especially in the rights stating:

- Urban residents shall have plentiful and generous open public places—outside of parks—for gatherings and ceremonies.
- Pedestrians shall have the right to breathe clean air on streets, free of the harmful fumes of vehicles.
- Standing room only on city streets shall end by providing benches for sitting and relaxation.
- The sounds of human voices shall replace vehicular noise on city streets.

- Urban man shall have the right to experience trees, plants, and flowers along city streets.
- Cities shall exist for the care and culture of human beings, pedestrians all!

Finally, Donald Appleyard's statement of people's rights to the following align to this functional area (Appleyard et al., 1981):

- The Street as a Livable, Healthy Environment
- The Street as Neighborly Territory
- The Street as a Place for Play and Learning
- The Street as a Green and Pleasant Land

#### 4.1.5 Access & connectivity

This functional area addresses needs stated in rights related to land use accessibility, and accessible/connected streets, buildings & networks for pedestrians, bicyclists and the those with disabilities. This includes larger scale land use and urban design activities that can have a meta-influence on a particular street section, including surrounding factors of land use, preservation, and street/network connection. This functional area also deals with the cognitive connectivity (wayfinding) and access to auto-alternatives, such as transit or micro-mobility options (bicycling networks). For example, Liga Peatonal's statements of rights such as:

- *"A city that fits my needs"*
- *"Adequate public transportation services" are both covered by this functional area of Access & Connectivity."*

Breines and Dean's (1974) Pedestrian Bill of Rights also include elements within this functional area, in the rights to:

- *"Reduce dependence on the automobile, city and suburban residents shall have the right to convenient, clean and safe mass transportation."*
- *"People shall be freed from the heavy burdens of daily travel by having the opportunity to live near their places of work."*

Finally, aligning with this functional area are Donald Appleyard's statement of people's rights to the following in Livable Streets (Appleyard et al., 1981):

- The Street as a Community
- The Street as a Unique Historic Place

#### 4.1.6 Professional prioritization of pedestrian/bicyclist needs

This final professional functional area ethic addresses needs articulated in the stated rights for how professionals (planners, engineers, & designers) approach problems as they arise, specifically how they prioritize the needs of pedestrian through street design.

Rights that relate to how professionals respond to issues that arise, include Los Angeles Walks' Pedestrian Bill of Rights (Los Angeles Walks, n.d.), stating that pedestrians have the right to,

- *“Full notification of all street widening that impinge on public open space and sidewalks;” and*
- *“Have needs of pedestrians considered as heavily as the needs of drivers.”*

Breines and Dean’s (1974) Pedestrian Bill of Rights also include elements within this functional area, in the rights stating:

*“Concern for the welfare of pedestrians shall extend to the surface under foot — with paving congenial for walking — and shall include human-scale street furniture and signs.”*

Actor ethics: Driver and pedestrian ethics & behavior

These functional areas are less directly referenced in the individual statements reviewed.

#### 4.1.7 Driver ethics and behavior

This relates to an ethic of drivers to operate their vehicles in a respectful manner to the rights of pedestrians - to drive slowly and with care, and to yield when they are crossing the street. For example; “the right to cross without intimidation from motorists, whether in the crosswalk or not” from National Street Service: Jaywalker’s Bill of Rights (National Street Service, n.d.) is a right that combines both the actor ethic directing drivers to drive with more caution and concern for pedestrians, with the professional ethic to help cross the street by slowing speeds. Changing driver ethics can be attempted through driver’s education, public service announcements, and public education campaigns.

#### 4.1.8 Pedestrians ethics

Ethics and responsibilities also exist for pedestrians. While the status quo in most of the US is to place too many burdens on pedestrians, that does not mean there should be no burdens either. Levinson’s Pedestrian Bill of Rights says, “Any pedestrian may cross roads at any point at any time where they will endanger neither themselves nor others by doing so.”

A ruling guide for pedestrian behavior (or ethic) is the concept of “relative vulnerability” (Grembek, 2012), which outlines the overwhelmingly lethal power vehicles can threaten pedestrians with, and is perhaps, at least for now, sufficient to guide competent pedestrian behavior in avoiding situations where they are likely to get themselves injured. Nevertheless, it probably should be made explicit. For instance, jumping in front of a car that must swerve to avoid a collision, and thus may collide with something or someone else is in our view unethical. In contrast, stepping into a street where the car has adequate time to safely decelerate is not.

Similarly, if pedestrian rights become strong enough, say in the future with autonomous vehicles, we then should perhaps revisit this. A pedestrian should not needlessly stop or slow-walk in front of a robot (whether or not it is carrying passengers), and we expect some law prohibiting “annoying a robot” to eventually become law.

## 4.2 Enforcement ethics

Similar to Actor Ethics, Enforcement Ethics may not always be directly referenced in the individual statements reviewed. Nevertheless, they are still key to addressing the need in many rights statements. Ethics of enforcement in terms of Rules & Laws and, of course, Police Enforcement practices, are both critically important in supporting and reinforcing many of the rights and professional and operational goals to furthering street livability for pedestrians.

#### 4.2.1 Rules & laws

An example for this functional area would be to get rid of laws and vehicle codes supporting the 85th percentile rule, which uses the 85th percentile speed to determine a street's posted speed, as opposed to determining lower speeds which better supports pedestrian rights to street livability. Another strategy would be to adopt laws to lower speeds or elevate the liability of drivers in collisions with pedestrians or bicyclists, such as they have in the Netherlands. For example, Article 88b dictating that drivers within a woonerf (residential shared street) do not drive faster than 9-12 MPH (a horses walking pace), or Article 88d dictating that "drivers may not impede pedestrians in a 'woonerf'" (Appleyard et al., 1981).

#### 4.2.2 Police enforcement

Police actions and approaches to enforcing and reinforcing pedestrian rights and driver behavior are critically important. Furthermore, as there is a growing area of concern regarding police stop behavior related to race and class, this functional area needs special attention.

Levinson's new bill of rights (2018), deals with this in his very first right, stating:

*"Pedestrians have the right to safely and conveniently walk along and cross any public right-of-way without regards to who they are, with whom they are associating, when or why they are traveling, or where they are coming from or going to. #NoPoliceStops"*

Table 1 and Table 2 provide summaries of the frequency each functional area is referenced in these statements of street human rights.

**Table 1.** Number of times functional areas are referenced

FUNCTIONAL AREAS		Number of Times Functional Area is Referenced
Professional Ethics: Engineering, Planning, & Design	Getting Across Street	19
	Getting Along the Street	22
	Calming traffic speeds and volumes	14
	Livability, Health Amenities and Aesthetics	30
	Access and Connectivity	23
	Professional Prioritizing of Pedestrians/Bicyclist Needs	24
Actor Ethics	Driver Behavior respecting pedestrian rights	15
	Legal structures supporting these rights	12
Enforcement Ethics	Enforcement (Police)	17

Table 2. Functional areas by topic

	Functional Areas								
	Professional Ethics: Engineering, Planning, & Design						Actor Ethics	Enforcement Ethics	
Rights to the Street and City	Getting Across Street	Getting Along the Street	Calming traffic speeds and volumes	Livability, Health Amenities and Aesthetics	Access and Connectivity	Professional Prioritization of Pedestrians/Bicyclist Needs	Driver Behavior respecting pedestrian rights	Rules & Laws	Enforcement (Police)
<b>1. Source: Breines and Dean (1974) write about a Pedestrian Bill of Rights in The Pedestrian Revolution: Streets without Cars:</b>									
1. The city shall not harm the pedestrian.	Y	Y	Y			Y	Y	Y	Y
2. The streets belong to all the people, and shall not be usurped for the passage and storage of motor vehicles.						Y	Y	Y	Y
3. People shall have the right to walk or cycle in safety; that means ample provision of pathways separate from trucks, buses and automobiles.		Y				Y			
4. To reduce dependence on the automobile, city and suburban residents shall have the right to convenient, clean and safe mass transportation.					Y	Y			
5. People shall be freed from the heavy burdens of daily travel by having the opportunity to live near their places of work.					Y				
6. Urban residents shall have plentiful and generous open public places – outside of parks – for gatherings and ceremonies.				Y	Y				
7. Pedestrians shall have the right to breathe clean air on streets, free of the harmful fumes of vehicles.				Y					
8. Standing room only on city streets shall end by providing benches for sitting and relaxation.				Y					
9. The sounds of human voices shall replace vehicular noise on city streets.				Y					
10. Concern for the welfare of pedestrians shall extend to the surface under foot — with paving congenial for walking — and shall include human-scale street furniture and signs.				Y					
11. Urban man shall have the right to experience trees, plants, and flowers along city streets.				Y					
12. Cities shall exist for the care and culture of human beings, pedestrians all!				Y		Y	Y	Y	Y
<b>2. Source: Appleyard (1981) included a “Statement of Street Dwellers Rights” in Livable Streets.</b>									
1. The Street as a Safe Sanctuary	Y	Y	Y				Y	Y	Y
2. The Street as a Livable, Healthy Environment				Y					
3. The Street as a Community					Y				

	Functional Areas								
	Professional Ethics: Engineering, Planning, & Design						Actor Ethics	Enforcement Ethics	
Rights to the Street and City	Getting Across Street	Getting Along the Street	Calming traffic speeds and volumes	Livability, Health Amenities and Aesthetics	Access and Connectivity	Professional Prioritization of Pedestrians/Bicyclist Needs	Driver Behavior respecting pedestrian rights	Rules & Laws	Enforcement (Police)
4. The Street as Neighborly Territory				Y	Y				
5. The Street as a Place for Play and Learning				Y					
6. The Street as a Green and Pleasant Land				Y					
7. The Street as a Unique Historic Place This is being updated as part of: Donald & Bruce Appleyard, Livable Streets 2.0, Elsevier. Forthcoming 2019				Y	Y				
<b>3. Source: Los Angeles Walks reports on Los Angeles City Council file Number 87-2261 — Pedestrian Bill of Rights which says “The People of Los Angeles have the right to:”</b>									
1. Safe roads and safe places to cross the street	Y		Y				Y		Y
2. Pedestrian-oriented building facades, trees, flower stands, trash cans, awnings, etc.				Y					
3. Safe and comfortable bus stops and public transit stations				Y	Y				
4. Appealing use of landscaping and available open space				Y					
5. Full notification of all street widening that impinge on public open space and sidewalks						Y			
6. Access to streets and buildings for disabled people				Y	Y	Y			
7. Clean surroundings, requiring removal of graffiti and advertisements from public property						Y			
8. Have needs of pedestrians considered as heavily as the needs of drivers						Y			
9. Public works of Art				Y					
<b>4. Source: Gellner offered a Pedestrian Bill of Rights:</b>									
1. When traffic laws say pedestrians have the right of way, that shouldn't just mean that if you're hit by a car, it's not your fault. People on foot shouldn't have to fear, evade, negotiate or maneuver around cars, whether moving or parked, just because planners routinely put the convenience of people inside vehicles far above that of people using their own two feet.	Y	Y				Y	Y	Y	Y
2. No pedestrian should ever find that the only way to reach that store or office on foot is to cross a huge desert of asphalt, with moving cars threatening on all sides. Any parking area with more than two rows of stalls should be required to have a pedestrian walkway running down the strip where cars usually face off nose-to-nose.					Y				

	Functional Areas								
	Professional Ethics: Engineering, Planning, & Design						Actor Ethics	Enforcement Ethics	
Rights to the Street and City	Getting Across Street	Getting Along the Street	Calming traffic speeds and volumes	Livability, Health Amenities and Aesthetics	Access and Connectivity	Professional Prioritization of Pedestrians/Bicyclist Needs	Driver Behavior respecting pedestrian rights	Rules & Laws	Enforcement (Police)
3. No pedestrian should ever be expected to cross more than four lanes of traffic, whether or not there are crossing signals present. The vast six- and even eight-lane boulevards that are being imposed on more and more of our suburbs tear neighborhoods apart and form virtual Grand Canyons to people on foot.	Y				Y				
4. In dense urban areas, pedestrians should be free to shop, stroll or sightsee without constant threat of assault by cars, buses or taxis. Hence, planners should provide centralized public parking at the fringe of city cores, offer a shuttle service and make downtown blocks pedestrian-only zones.					Y				
5. Lastly, American planners should recognize that, in relative terms, cars are a mere fleeting speck of technology, like the chariot, the man-of-war and the steam locomotive.						Y			
<b>5. Source: Liga Peatonal (n.d.) The illustrated Charter of Pedestrian Rights (PDF) in English by Mexican pedestrian advocates</b>									
1. Cross the street calmly and safely	Y	Y	Y						
2. A city that fits my needs					Y				
3. Adequate public transportation services					Y				
4. Organized urban centers					Y				
5. Socialize in public spaces				Y					
6. Play in the streets			Y				Y	Y	Y
7. Suitable street furniture				Y					
8. Spacious sidewalks		Y							
9. A healthy environment and enjoyment of the space				Y					
10. Walk calmly on the street.		Y	Y						
<b>6. Source: Dolan (n.d.) in the SF Examiner: Pedestrian's Bill of Rights</b>									
<b>The Right-Of-Way When Using Crosswalks:</b> Motorists failing to yield the right-of-way at crosswalks is the No. 1 dangerous behavior contributing to fatal traffic crashes in San Francisco. Motorists “shall yield the right-of-way to a pedestrian crossing the roadway within any marked crosswalk or within any unmarked crosswalk at an intersection.” Motorists must always stop for pedestrians crossing at streets corners, with or without traffic signal lights and whether or not the crosswalk is marked by painted lines. Further, even if the marked crosswalk is the middle of the block, motorists must stop for pedestrians.	Y						Y	Y	Y

	Functional Areas								
	Professional Ethics: Engineering, Planning, & Design						Actor Ethics	Enforcement Ethics	
Rights to the Street and City	Getting Across Street	Getting Along the Street	Calming traffic speeds and volumes	Livability, Health Amenities and Aesthetics	Access and Connectivity	Professional Prioritization of Pedestrians/Bicyclist Needs	Driver Behavior respecting pedestrian rights	Rules & Laws	Enforcement (Police)
<b>The Right to Unimpeded Use of a Crosswalk:</b> A crosswalk is the part of the roadway set aside for pedestrian traffic. Motorists and bicyclists must stop behind the line at traffic signals and stop signs.	Y						Y		Y
<b>The Right Not to Be Struck by A Speeding Vehicle:</b> Motorists traveling at an unsafe speed is the second most dangerous behavior contributing to fatal traffic crashes in San Francisco. Speeding increases stopping distance and collision force. When a person is hit by a vehicle traveling at 20 miles per hour, there is a 90 percent chance of survival. The survival rate drops to 20 percent if a person is hit by a vehicle traveling at 40 miles per hour. Motorists approaching a pedestrian “within any marked or unmarked crosswalk shall exercise all due care and shall reduce the speed of the vehicle or take any other action relating to the operation of the vehicle as necessary to safeguard the safety of the pedestrian.”	Y	Y	Y				Y	Y	Y
<b>The Right Not to Be Struck in The Roadway:</b> While pedestrians should not jaywalk and always use crosswalks to cross a roadway, even if the pedestrian is within a portion of the roadway other than a crosswalk motorist must slow down. Motorists are under the duty “exercise due care for the safety of any pedestrian” no matter where the pedestrian is on the roadway. This rule also applies to bicyclists because, as a rule, bicyclists have the same duties and responsibilities as motorists		Y					Y	Y	Y
<b>The Right to Unimpeded Use Of Sidewalks:</b> Adult bicyclists, and even teenage bicyclists, are prohibited from riding on sidewalks in most California cities. In San Francisco, it is illegal to bike on a sidewalk if the bicyclist is 13 years of age or older. Of course, bicyclists can dismount and walk their bike on sidewalk. At that point, they are pedestrians under the law		Y							
<b>7. Source: <a href="https://www.nationalstreetservice.org/jaywalker/">National Street Service: Jaywalker’s Bill of Rights (n.d.) (https://www.nationalstreetservice.org/jaywalker/)</a></b>									
1. The right to cross without intimidation from motorists, whether in the crosswalk or not		Y	Y				Y		
2. The right to medical care without cost for injuries inflicted by motorists								Y	
3. The right to fewer moving traffic lanes		Y	Y			Y			
4. The right to lower motorists’ speed			Y				Y		
5. The right to pass by									
6. The right to stop, sit, recline, and rest without harassment or intimidation				Y					

	Functional Areas								
	Professional Ethics: Engineering, Planning, & Design						Actor Ethics	Enforcement Ethics	
Rights to the Street and City	Getting Across Street	Getting Along the Street	Calming traffic speeds and volumes	Livability, Health Amenities and Aesthetics	Access and Connectivity	Professional Prioritization of Pedestrians/Bicyclist Needs	Driver Behavior respecting pedestrian rights	Rules & Laws	Enforcement (Police)
7. The right to avoid activities one finds dangerous or unsavory				Y					
8. The right to express needs and desires for the neighborhood						Y			
9. The right to determine one's own safest, most suitable route					Y				
<b>8. Source: Levinson (2018)</b>									
1. Pedestrians have the right to safely and conveniently walk along and cross any public right-of-way without regards to who they are, with whom they are associating, when or why they are traveling, or where they are coming from or going to. #NoPoliceStops	Y	Y	Y				Y	Y	Y
2. In the event of a conflict with vehicles, pedestrians automatically have the right-of-way. Where no dedicated footpaths are available, any pedestrians have the right-of-way over any other traffic and speeds shall be limited to that traveled by those pedestrians. Pedestrians shall never be required to give way to self-driving vehicles. #Right-of-Way #Footpaths #SharedSpace #StopForNoBot	Y	Y	Y				Y		Y
3. Any pedestrian may cross roads at any point at any time where they will endanger neither themselves nor others by doing so. #JaywalkingIsNotACrime.	Y		Y						Y
4. In the event of a collision with a pedestrian, the controller of the vehicle is always liable. #TheCarIsAlwaysWrong								Y	Y
5. The space on a right-of-way allocated per pedestrian shall be no less than space allocated per traveler by vehicle. #SpatialEquity		Y				Y			
6. Any place accessible by vehicle must remain accessible to pedestrians on a route no less direct. In the event of blockage due to weather or other causes, pedestrian paths shall be cleared before vehicle paths. #SnowPriority #AccessEquity #Connectivity #MinimizeCircuitry					Y	Y			Y
7. Speed limits on streets shall be established both to minimize total pedestrian collisions and to minimize total injury and loss of life in the event of a collision. #SlowTraffic			Y			Y			Y
8. Every intersection of two, or more, rights-of-way contains crosswalks. There is a crosswalk on every side of every intersection. Such crosswalks must remain unimpeded when pedestrians have right-of-way. #EveryIntersectionIsACrosswalk	Y								
9. All at-grade road crossings shall be at the elevation of the pedestrian way. #BowToNoCar	Y					Y			



	Functional Areas								
	Professional Ethics: Engineering, Planning, & Design						Actor Ethics	Enforcement Ethics	
Rights to the Street and City	Getting Across Street	Getting Along the Street	Calming traffic speeds and volumes	Livability, Health Amenities and Aesthetics	Access and Connectivity	Professional Prioritization of Pedestrians/Bicyclist Needs	Driver Behavior respecting pedestrian rights	Rules & Laws	Enforcement (Police)
Trip hazards		Y			Y	Y			
<b>Access</b>									
Crossing opportunities	Y								
Level of disability access					Y				
Information Amenity				Y	Y				
Traveler information available including signposting				Y	Y				
Amenity				Y					
Footpath pavement conditions		Y			Y				
Comfort and convenience features				Y					
<b>Security</b>									
Aesthetics				Y					
<b>TOTAL</b>	<b>19</b>	<b>22</b>	<b>14</b>	<b>30</b>	<b>23</b>	<b>24</b>	<b>15</b>	<b>12</b>	<b>17</b>

By examining the results of Table 1 and Table 2, we find the following:

1. First, classic engineering and planning functions helping people get *across* and *along* streets, and *calm traffic speeds* and *volumes* are all well represented in these rights. This is shown in the relatively high numbers (shown in bold) for:
  - a. Getting People Safely and Comfortably Across the Street (**19**)
  - b. Getting People Safely and Comfortably Along the Street (**22**)
  - c. Calm Traffic Speeds and Reduce Flows (**14**)
2. What is interesting is prominence of functional areas dealing with access to desired destinations, that would be provided mostly through land-use planning, as well as the importance of providing amenities and placemaking, which are both major urban design functions. This is shown with some of the highest scores, overall for:
  - a. Livability, Health, Amenities & Aesthetics (**30**)
  - b. Access & Connectivity (land use and street network design) (**23**)
3. What is also important is how professionals approach issues that may arise, highlighting the need for them to adopt an ethical framework to prioritize the needs of pedestrians and bicyclists,

and place them first. This is again supported with one of the highest scores for:

- a. Professional Prioritization of Pedestrian and Bicyclist Needs **(24)**
4. While the remaining functional areas dealing with Actor and Enforcement Ethics, show relatively modest representation, likely due to the fact that these are not always explicitly referenced in these rights statements, they nevertheless reveal themselves to be important in this assessment. Specifically:
- a. Driver Ethics **(15)**
  - b. Rules & Laws **(12)**
  - c. Police Enforcement **(17)**

Overall, our examination of these rights statements reveals several things. First, it is not just about engineering or the design of a street cross section, but a more comprehensive approach, including land use planning, urban design, placemaking, as well as instilling certain ethical behaviors in various actors (drivers) which could also come through police enforcement, and from certain laws and rules. These rights are also not only supported by the ethical behavior of the actors traveling on the street (drivers), but also the way professionals (engineers and planners and designers) may respond to issues that may arise, and how they work to prioritize the needs of pedestrians.

## 5 Conclusions

In closing we turn to Harvey (2008) who says:

“The freedom to make and remake ourselves and our cities is, I want to argue, one of the most precious yet most neglected of our human rights.” —David Harvey, *Rights to the City*

This paper draws broadly from the literature to work toward a comprehensive, multi-disciplinary ethical framework to guide planning, design, and engineering decisions to support pedestrian rights for street and urban livability. To identify and propose these ethical principles and help achieve optimal livability for individuals, groups, and society, we have systematically: 1) examined the literature to clarify the various concepts of street livability and human rights to the street (as related to a collection of various pedestrian rights statements); and 2) provided a roadmap for planners, urban designers, and engineers to apply these concepts in practice.

Building on the concept of *Functional Area Ethics*, a collection of functional areas are identified and used to evaluate these rights in an effort to help professionals determine appropriate actions to protect these rights going forward. These functional areas are as follows: 1) professionals (engineers, planners, designers), 2) actors (drivers, pedestrians), and 3) enforcers (police, and those who make rules & laws). One of our key findings is that meeting the needs stated in these rights will require multi-pronged strategies (engineering, education, encouragement, enforcement) involving the many different actors in and influencing the street environment. Not only professionals including engineers, planners, and urban designer, but drivers, lawyers, politicians, schoolteachers, members of the media, etc. In sum, not only will it “take a village,” but it will also require we work beyond the edges of the pavement, and through a number of functional areas.

Future work can build on this articulation of these functional areas, and their ethics for how to approach things by more specifically discussing actions that could be taken, from building better crosswalk, sidewalks, and traffic calming, to better laws, police enforcement practices and public education campaigns. Campaigns like Complete Streets, and Vision Zero, both recognize that to protect these human rights in and around our streets and cities, much more than just engineering and design.

This paper conceptually bridges the gap between street and city livability and human rights, and through the discussion of functional area ethics, provides a better understanding of the strategies, approaches and actions professionals can employ to protect and further the rights of pedestrians

Nevertheless, for all the conflicts, power imbalances, and the need for impact mediation outlined in the discussion of *Livability Ethics*, professionals working in the public interest can use these functional area ethics to prioritize engineering, planning, and policy strategies to achieve a balanced and mutually-reinforcing set of livability opportunities for individuals and communities to maintain and improve their quality of life, in and around our most accessible public spaces—our streets.

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