

# CANAL URBANISM

## SMARTCODE MODULE

PREPARED BY DAN BARTMAN

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*Where the conflicting influences of man and nature meet  
a harmonious silence reigns - perceived in the water's  
surface reflecting the vertical and horizontal lines it  
seems to support.*

Umberto Franzoi

SMARTCODE MODULE - CANAL URBANISM

This SmartCode Module establishes Waterside standards for Civic Zones and Civic Spaces, Public Frontages and Private Frontages, Thoroughfares, and the configuration of private lots adjacent to canals and canalized rivers for SmartCode-based jurisdictions. This text of the module should be inserted in the base code with subsequent sections properly renumbered. If the Module is used for the Neighborhood Conservation Code, the numbers and placement of tables will be different. Both templates may be downloaded as freeware at [www.transect.org](http://www.transect.org).

1.4 PROCESS

1.4.X

The success of development that encroaches close to a canal is dependent upon a good relationship between developers and city officials and the agency with authority over the waterway. Including a conditional representative from this organization on the Consolidated Review Committee for waterside projects should remove the need for any supplementary review.

3.5.X WATERSIDE CIVIC ZONES

3.5.X.a.i

Waterside Civic Zones should always include Waterside Civic Frontage along the entire extent of a canal. When this frontage type is used as part of a coordinated system, a canal will function as part of the pedestrian network of an urban or rural area. Because this module is Transect-based, the Waterside Civic Frontage can adjust to the context of surrounding urbanism and serve different needs.

3.5.X.b.i

Waterside Civic Frontage, a type of Public Frontage, is civic in nature because the adjacent waterbody attracts pedestrian activity, provides civic views of the city and can in most cases be used for recreational activities. It can be understood as the interface between two environments, one urban and one aquatic.

3.5.X.b.iii

Waterside Civic Frontage normally features some type of wood, metal or stone railing, parapet, columns or bollards, or change in pavement type along the Bulkhead or embankment of a Canal that allows for the encroachment of urban features while taking into consideration the safety of pedestrians.

3.5.X.d.iii

It is common for businesses or even residents to place cafe table and chairs in the walkway of Waterside Civic Frontage. This should not be discouraged, yet permitted only where appropriate. A 5’ sidewalk cannot support cafe seating while at the same time accommodating movement along the water.

ARTICLE 1. GENERAL TO ALL PLANS

1.4 PROCESS

1.4.X Waterside projects adjacent to Canals may be subject to supplementary review by the appropriate Local, State or Federal Water Authority.

ARTICLE 3. NEW COMMUNITY SCALE PLANS

3.2 SEQUENCE OF COMMUNITY DESIGN

3.2.X Canal standards shall be laid out according to Section 3.X.

3.5 CIVIC ZONES

3.5.3 CIVIC SPACE (CS) SPECIFIC TO T3-T6 ZONES

f. Each Civic Space shall have a minimum of 50% of its perimeter enfronting a Thoroughfare or Canal, except for playgrounds.

3.5.X WATERSIDE CIVIC ZONES

a. GENERAL TO ALL ZONES T1, T2, T3, T4, T5, T6

- i. Waterside Civic Zones dedicated for public use shall be required for all Canals within a Community Unit and designated on the New Community Plan as Waterside Civic Frontage (WCF), Civic Space (CS), and the Canal.
- ii. A Waterside Civic Zone may be permitted by Warrant if it does not occupy more than 20% of a Pedestrian Shed, otherwise it is subject to the creation of a Special District. See Section 3.6.
- iii. Waterside Civic Zones may count toward the Civic Space requirements of Article 3 by Warrant. If the Canal itself is not available for public boating, swimming or fishing, its area would be excluded from the calculation.

b. WATERSIDE CIVIC FRONTAGE (WCF) GENERAL TO ALL ZONES T1, T2, T3, T4, T5, T6

- i. Waterside Civic Frontage contributes to the character of the waterfront in each Transect Zone and includes the types of Sidewalk, Curb, Planter and trees.
- ii. The Sidewalk of Waterside Civic Frontage shall be designed for use by pedestrians, shall provide access to Lots and Open Spaces, and shall facilitate movement along the waterfront.
- iii. Waterside Civic Frontage shall provide appropriate infrastructure as a safety feature to alert pedestrians to the presence of, or impede direct access to, the water.

c. WATERSIDE CIVIC FRONTAGE (WCF) SPECIFIC TO ZONES T4, T5, T6

- i. Waterside Civic Frontage and Waterside Private Frontage shall be considered Coordinated Frontage with a single coherent landscape and pavement design. (See Section 5.7). Exemptions are granted by Warrant.
- ii. A new Community Plan may designate Mandatory and/or Recommended Retail Frontage for Lots abutting Waterside Frontage.

d. WATERSIDE CIVIC FRONTAGE DESIGN STANDARDS

- i. Waterside Civic Frontage shall be designed as shown in Table 4a and allocated within Transect Zones as specified in Table 14x.
- ii. The Sidewalk of Waterside Frontage shall be constructed of non-slip paving materials at a constant elevation, and shall be accessible to handicapped persons throughout the entire length of the waterfront.

3.5.X.d.vi

If a railing, wall or similar feature is provided as a safety feature in the Waterside Frontage, it may be designed without a flat surface at its top to prevent people and objects from being knocked into the water. This decision should be locally calibrated.

3.7.1 THOROUGHFARE STANDARDS

3.7.1.f

Thoroughfares that terminate at canals must be carefully designed. While they provide views of the canal or waterway for certain lots, the lack of a bridge crossing would create a dead end unless connection to a Waterside Thoroughfare is also supplied.

3.7.1.g

This permits three options for the disposition of private lots along canals. Lots may either directly enfront a canal, Waterside Civic Frontage, or a Thoroughfare. Lots enfronting Waterside Civic Frontage recreate examples from Venice, Italy; San Antonio, Texas, and Los Angeles, California. An appropriately scaled thoroughfare may be disposed between the canal and private lots, recreating the urban form of Amsterdam; New Town St. Charles, Missouri, and St. Petersburg, Russia. Finally, lots may be disposed so as to directly enfront an canal, although this is not recommended practice.

3.7.1.k

The percolation of water behind a canal Bulkhead or embankment threatens the structural integrity of the canal.

3.7.3 PUBLIC FRONTAGES

3.7.3.a.iv

When a Thoroughfare is adjacent to the embankment or bulkhead of a canal, its Public Frontage adjacent to the canal is considered part of the Waterside Civic Frontage and held to the same standards.

3.X CANAL STANDARDS

3.X.1.a

“Variable” is used here in place of the multiple types of canals that exist. The term should be replaced by a locally calibrated identification. Most canal types will support urban activity along their banks, save for irrigation canals and canals used for heavy shipping and ocean-scaled vessels. These two types are identified as Class 2 and Class 3 Canals, and would have separate regulations. Standards in the calibrated code must not conflict with them.

- iii. Obstructions to movement that reduce the clear width of the Sidewalk shall be approved by Warrant.
- iv. In the absence of a Waterside Buffer or Tree Lawn, the Sidewalk shall have a slight grade away from the Waterside edge to direct storm water away from the Canal.
- v. Within the Waterside Civic Frontage, the prescribed types of Public Planting and Public Lighting shall be shown in Table 4a. Spacing may be adjusted by Warrant to accommodate specific site conditions.
- vi. The top of any railing **should** be at a constant elevation for the length of the Waterside Frontage.
- vii. If called for by Table 4a Waterside Civic Frontage or Table 13 Waterside Civic Space, landscape and tree plantings within the Waterside Civic Frontage shall conform to the standards of Section 3.7.3.
- viii. Waterside Civic Frontage may function as a quay or dock with the provision of boat or ship mooring infrastructure as part of the Waterside Frontage, **bulkhead or embankment**.

e. WATERSIDE CIVIC SPACE (CS) GENERAL TO ALL ZONES T1, T2, T3, T4, T5, T6

- i. Waterside Civic Spaces shall be generally designed as described in Table 13a.
- ii. Where it does not feature its own design for the waterfront, Waterside Civic Space shall carry the design of adjacent Waterside Civic Frontage across its extent.

3.7 THOROUGHFARE STANDARDS

3.7.1 GENERAL

- f. All Thoroughfares shall terminate at other Thoroughfares, forming a network. Internal Thoroughfares shall connect wherever possible to those on adjacent sites. Thoroughfares terminating at a Canal and Cul-de-sacs shall be subject to approval by Warrant to accommodate specific site conditions only.
- g. Each Lot shall Enfront a vehicular Thoroughfare, Waterside Frontage or Canal, except that 20% of the lots within each Transect Zone may Enfront a Passage.
- k. Drainage Swales along Waterside Thoroughfares are permitted by Warrant.

3.7.3 PUBLIC FRONTAGES

a. GENERAL TO ALL ZONES T1, T2, T3, T4, T5, T6

- iv. The Public Frontage of Waterside Thoroughfares that Enfront a Canal shall be considered Waterside Civic Frontage subject to the prescriptions of Section 3.5.x.

3.X CANAL STANDARDS

3.X.1 GENERAL TO ALL ZONES T1, T2, T3, T4, T5, T6

- a. There shall be three classes of Canals: Class 1 **Variable**, Class 2 Irrigation, and Class 3 Shipping.
  - i. The Waterside Frontage along Class 2 Irrigation Canals shall be set back the distance of any utility or maintenance Easement maintained by **Water Authority**.
  - ii. The utility or maintenance Easement of Class 2 Irrigation Canals may be used for authorized pedestrian activities by Variance only.
  - iii. Class 3 Shipping Canals shall have a **150 foot** wide Buffer on each side.

5.7 BUILDING CONFIGURATION

5.7.1.x

The best example of lots in this situation is along the Riverwalk in San Antonio, Texas. The more formalized Primary Frontages of buildings face the street, while the more ‘natural’ and informal Secondary Frontages face the Riverwalk.

5.7.1.x

The Waterside Civic Frontage is often at a different elevation from the Public Frontage of corner Lots that enfront both a Thoroughfares and a Canal. This condition is present when, for example, the Waterside Civic Frontage continues under a bridge that crosses over a Canal. This provision ensures a connection between the two public walkways and is required even when a Thoroughfare terminates at the Canal. Along the San Antonio Riverwalk, this connection is either an elevator or a ramp.

5.X WATERSIDE PRIVATE FRONTAGE DESIGN STANDARDS

Additional design standards may be added to this section as desired. Some of the descriptions from Table 7 of this Module may be adapted or expanded to become regulatory.

5.X.1.b

This statement is advisory. It is intended to create active facades along the canal waterfront.

- Buffers shall be maintained free of structures or other modification to the natural landscape, including agriculture, with the exception of Canal operations infrastructure which shall be zoned as a Special District.
- b. Boats moored or anchored along the embankment or Bulkhead of a Canal shall not take up more than 20% of the Canal width measured at the water’s surface.
  - c. Boats shall not moor or anchor longer than 12 hours at a Public Mooring Area.
  - d. Space to moor or anchor a boat shall not be offered for rent along any unimproved lot abutting any Canal.
  - e. Installation of water features within the Right-of-Way of Class 1 Canals shall be permitted by Warrant.

ARTICLE 5. BUILDING SCALE PLANS

5.7 BUILDING CONFIGURATION

5.7.1 GENERAL TO ZONES T2, T3, T4, T5, T6

- x. The Private Frontage of buildings on Waterside Lots and Lots adjacent to Waterside Civic Frontage shall conform to and be allocated in accordance with Table 7a, Table 14j, and Section 5.x: Waterside Private Frontage Design Standards.
- x. Waterside Lots disposed between a Thoroughfare and Waterside Civic Frontage shall have a Principal Frontage facing the Thoroughfare and a Secondary Frontage facing the water, as shown in Table 17x.
- x. Corner Lots Enfronting both a Thoroughfare and a Canal shall provide a handicapped accessible pedestrian connection from the Public Frontage of the Thoroughfare to the Waterside Civic Frontage along the Canal.

5.x WATERSIDE PRIVATE FRONTAGE DESIGN STANDARDS

5.X.1 SPECIFIC TO ZONES T4, T5, T6

- a. A secondary entrance shall be provided for all buildings with a Waterside Secondary Frontage.
- b. Waterside Private Frontage and building Facades should emphasize spatial connections among the building, the Waterside Civic Frontage, and the Canal.

These annotations are advisory only. The SmartCode itself appears only on the right side of each spread.

Municipality

**TABLE 4A: Waterside Civic Frontage (adjacent to Lots).** Waterside Civic Frontage is the area between the private Lot line and the edge of a Canal. The diagrams of this table are only illustrative; specific designs would be prepared in accordance with individual sites. The text describes the general character of the type. It may be adapted as either Definitions or regulatory standards if desired.

PLAN	
LOT	CANAL R.O.W.
PRIVATE FRONTAGE	WATERSIDE FRONTAGE
a. <b>Waterside Path:</b> a beaten Path, cinder trail, or paved walkway. May consist of natural vegetation in simple planter strips or a significant Waterside Buffer along the water.	 <div>T1 T2 T3 T4</div>
b. <b>Boardwalk:</b> characterized by wooden or similarly styled planking; often on pilings or floating on pontoons. A standard boardwalk is built on land with railings on one or both sides of the walkway and is generally positioned above a Bulkhead or embankment, but occasionally may extend over the water. .	 <div>T1 T4 T5 T6</div>
c. <b>Waterside Planter:</b> features a Sidewalk and individual or continuous Waterside Planters and a metal, wood or stone railing, parapet, columns or bollards, and/or a change in pavement along the water. Landscaping consists of trees of a single or alternating species aligned in a regularly spaced Allee.	 <div>T3 T4 T5 T6</div>
d. <b>Frontage Line Planter:</b> features a Sidewalk, individual or continuous planters along the Frontage Line, and a metal or stone railing, parapet, columns or bollards, and/or a change in pavement along the water. Landscaping consists of trees of a single or alternating species aligned in a regularly spaced Allee, sometimes with other plantings.	 <div>T4 T5 T6</div>
e. <b>Waterside Tree Wells:</b> features a Sidewalk, Waterside Tree Wells, and a metal or stone railing, parapet, columns or bollards, and/or a change in pavement along the water. Landscaping consists of trees of a single or alternating species aligned in a regularly spaced Allee.	 <div>T4 T5 T6</div>
f. <b>Canalwalk:</b> features a wide to very wide Sidewalk and a metal, wood or stone railing, parapet, columns or bollards, and/or a change in pavement along the water. May be combined with a Gallery or Arcade Private Frontage.	 <div>T4 T5 T6</div>



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TABLE 4A - WATERSIDE CIVIC FRONTAGE (ADJACENT TO THOROUGHFARES)

This table indicates parking on the side of the thoroughfare opposite the Waterside Civic Frontage (WCF). In lower Transect Zones and where the WCF is relatively narrow, parking will mainly serve the residents of the block and is thereby more useful on the building side. In addition, when the side along the WCF is free of parked cars, the view to the water is more accessible for those passing by, whether by car, transit, bicycle, or foot. To retrofit an overwide thoroughfare, a bikeway may occupy a portion of the vehicular lane along the WCF. Onstreet parking on both sides, with or without a bikeway, facilitates traffic calming if justified by the housing density.

In higher T-zones, especially T-5 and T-6, the Waterside Civic Frontage is more likely to serve as a Common Destination, attracting visitors from outside the neighborhood and region, for recreation and events. In some cases, the WCF (or Waterside Civic Space as shown on Table 13A) may face a one-sided mixed-use shopping street, or larger mixed-use zone, where onstreet parking is important to serve multiple uses.

For more complex combinations of travel modes in combination with Public Frontages, refer to the Complete Thoroughfares, Transit-Oriented Development, and Bicycling Modules at [www.transect.org](http://www.transect.org).

Municipality

**TABLE 4A: Waterside Civic Frontage (adjacent to Thoroughfares).** This Public Frontage type adjacent to a Thoroughfare is considered part of the Canal Right-of-Way. The diagrams of this table are only illustrative; specific designs would be prepared in accordance with individual sites. The text describes the general character of the type. It may be adapted as either definitions or regulatory standards if desired.

PLAN	
THOROUGHFARE R.O.W.	WC FRONTAGE CANAL R.O.W.
<p><b>g. Buffer:</b> a vegetative Waterside Civic Frontage acting as a Buffer between a Thoroughfare, Lots, or Open Spaces and the Bulkhead or embankment of the Canal. Landscaping consists of trees of a single or alternating species aligned in a regularly spaced allee or arrayed in naturalistic clusters in more rural conditions. May include a metal, wood or stone railing, parapet, and/or columns or bollards. Onstreet parking is usually opposite the Waterside Frontage, on the building side.</p>	 <div>T2 T3 T4</div>
<p><b>h. Double Planter:</b> features a central Walkway, a continuous Planter along the Curb, a continuous Waterside Planter, and a metal, wood or stone railing, parapet, columns or bollards, and/or a change in pavement along the water. Landscaping consists of street trees of a single or alternating species aligned in a regularly spaced Allee. Onstreet parking is usually opposite the Waterside Civic Frontage, on the building side.</p>	 <div>T2 T3 T4</div>
<p><b>i. Curbside Planter:</b> features a Sidewalk, a continuous Planter along the Curb, and a metal or stone railing, parapet, columns or bollards, and/or a change in pavement along the water. Landscaping consists of street trees of a single or alternating species aligned in a regularly spaced Allee. Onstreet parking is usually opposite the Waterside Civic Frontage in lower Transect Zones, on the building side.</p>	 <div>T3 T4 T5</div>
<p><b>j. Curbside Tree Wells:</b> features a Sidewalk, Tree Wells along the Curb, and a metal or stone railing, parapet, columns or bollards, and/or a change in pavement along the water. Landscaping consists of street trees of a single or alternating species aligned in a regularly spaced Allee. Onstreet parking may be one-sided or two-sided in higher Transect Zones.</p>	 <div>T4 T5 T6</div>
<p><b>k. Canalwalk:</b> features a wide to very wide Sidewalk and a metal or stone railing, parapet, columns or bollards, and/or a change in pavement along the water. Onstreet parking may be one-sided or two-sided in higher Transect Zones.</p>	 <div>T5 T6</div>

**TABLE 7A: Waterside Private Frontages.** The Private Frontage is the area between the building Facades and the Lot lines. The diagrams of this table are only illustrative; specific designs would be prepared in accordance with individual sites. The text is explanatory only. It may be adapted as either definitions or regulatory standards if desired.

	SECTION	PLAN
	LOT PRIVATE FRONTAGE CANAL R.O.W. WATERSIDE FRONTAGE	LOT PRIVATE FRONTAGE CANAL R.O.W. WATERSIDE FRONTAGE
a. <b>Yard &amp; Private Dock:</b> a planted Frontage wherein the Facade is set back from the Frontage Line with an attached porch permitted to encroach. In the presence of adjacent yards, the front yard remains unfenced and is visually continuous with the adjacent yards, supporting a common landscape. A private dock provides space for the mooring of boats and may be parallel or perpendicular to the shoreline.		
b. <b>Waterside Yard &amp; Fence:</b> a planted Frontage wherein the Facade is set back from the Frontage Line to provide a yard and is separated from the Sidewalk with a short wall, fence or shrub row that provides spatial definition to the Waterside Frontage.		
c. <b>Waterside Patio &amp; Fence:</b> the Facade is set back from the Frontage Line to provide a patio and is separated from the Sidewalk with a short wall, fence or shrub row that provides spatial definition to the Waterside Frontage.		
d. <b>Waterside Terrace:</b> the Facade is set back from the Frontage Line by an elevated Terrace. This type buffers Residential use from urban Sidewalks and removes the private yard from public encroachment. A short wall, fence or shrub row may be present to provide spatial definition to the Waterside Frontage. The Terrace type is suitable for conversion to outdoor cafes.		
e. <b>Direct Stoop:</b> the Facade is aligned directly along the Frontage Line, adjacent to the shoreline of a Canal. The entrance to the building is accessed by exterior steps and/or a landing or dock encroaching into the water.		
f. <b>Zaguan:</b> the Facade is aligned directly along the Frontage Line, adjacent to the shoreline of a Canal. A private passage leads into the building providing access to internal doors and/or a Thoroughfare, Alley, Passage on the opposite side of the building or a Courtyard internal to the Block. The entrance to the building is accessed by exterior steps and/or a landing or dock encroaching into the water.		
g. <b>Private Portal:</b> a colonnade-supported habitable space that overlaps the Setback of the Facade of the first Story, which remains behind the Frontage Line. The portal is accessed by exterior steps encroaching into the water.		

Municipality

TABLE 13A: Waterside Civic Space. The intended types of Waterside Civic Space are diagrammed and described in this Table. The diagrams are only illustrative; specific designs should be prepared in accordance with individual sites. The text describes the general character of the type. It may be adapted as either definitions or regulatory standards if desired.

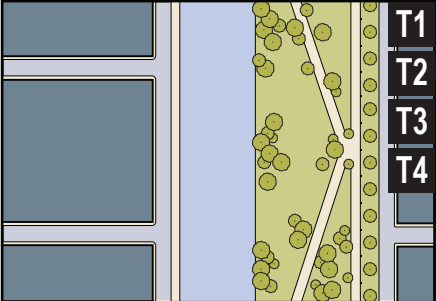
<p><b>a. Civic Basin:</b> an Open Space available for unstructured recreation and Civic purposes. A Civic Basin is organized around a Canal Basin and defined spatially by buildings and/or landscaping. Water features or public art are often located at the center of the basin.</p>	
<p><b>b. Waterside Square:</b> an open space available for unstructured recreation and Civic purposes. A Waterside Square is normally defined on two sides by building Frontages. Its landscape shall consist of paths, lawns, and trees, formally disposed. Waterside Square disposition serves to provide pedestrian connectivity between the Public Frontage of a nearby Thoroughfare and the Waterside Frontage along a Canal. Public art is located at the center, most likely a water feature.</p>	
<p><b>c. Cross Water Odeon:</b> an open space available for unstructured recreation and Civic purposes. A Cross Water Odeon utilizes both banks of a Canal and is spatially defined by buildings or landscape and vegetation. An audience side of terraced seating directs pedestrian attention toward a stage or civic building across the water. Landscape shall consist primarily of pavement. The stage side functions as performance space and may encroach over the water 20% of the width of the water body.</p>	
<p><b>d. Waterside Plaza:</b> an open space available for Civic Purposes and commercial activities. A Waterside Plaza is normally defined on two sides by building Frontages. Its landscape shall consist primarily of pavement. Waterside Plaza disposition serves to provide pedestrian connectivity between the Public Frontage of a nearby Thoroughfare and the Waterside Frontage along a Canal. Public art is located at the center, most likely a water feature.</p>	
<p><b>e. Waterside Staircase:</b> a space designed to facilitate pedestrian movement from one elevation to another. Civic Staircases always face the water and pedestrians should not be prevented from using the steps as seating space for unstructured recreation. Well-designed staircases provide steps and landings for sitting and steps for traffic flow. Waterside Staircases serve to connect the Waterside Frontage along a Canal or the edge of the water to adjacent Civic Spaces or Lots found at a different elevation.</p>	



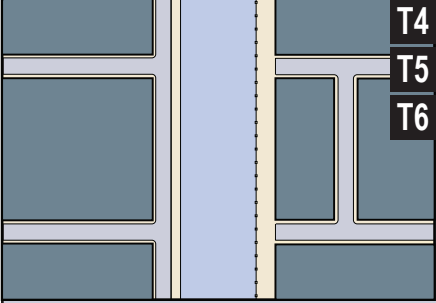
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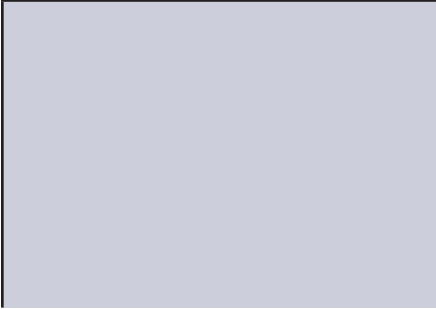
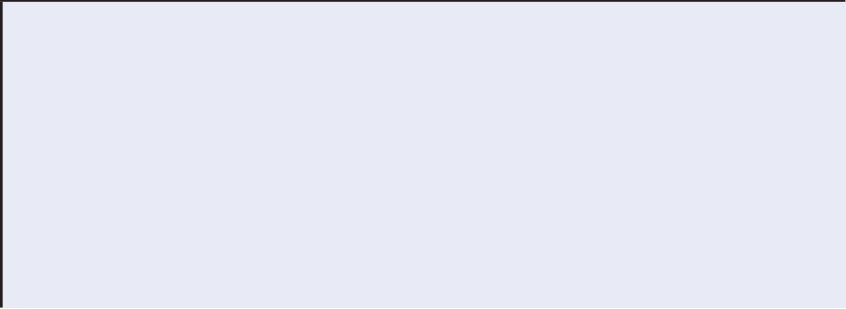
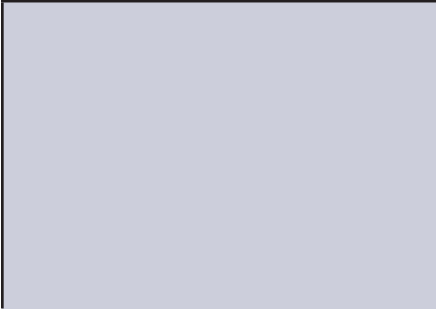
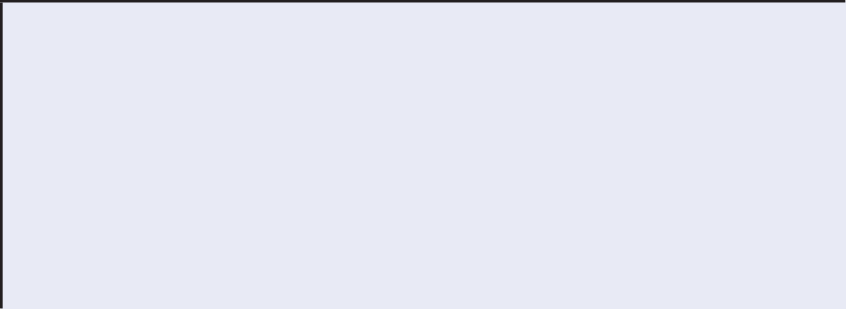
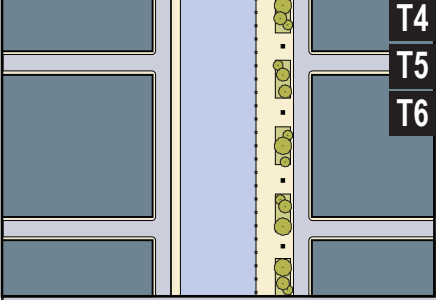
f. **Waterside Greenway:** a linear Civic Space enfronting a Canal or other waterbody, available for unstructured recreation and spatially defined by landscape rather than building Frontages. Usually includes shared use Paths and a Buffer along the Bulkhead or embankment. It may connect with more urban Promenades or Esplanades, and may feature periodic Viewing Stations for overlooking the water.



g. **Promenade:** a controlled pedestrian sequence designed to be an aesthetic experience. A Promenade is sometimes covered or screened from the sun and may feature periodic Viewing Stations for overlooking the water. Design elements are formally disposed.



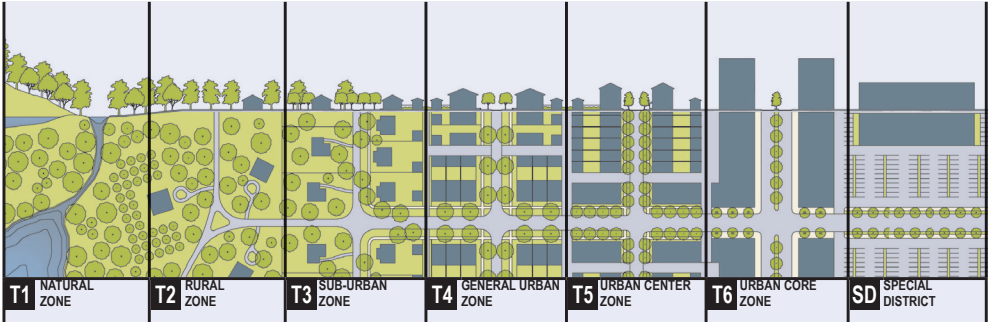
h. **Esplanade:** a controlled pedestrian sequence similar in function to a Promenade that features adjacent or integrated Plazas, Squares, Bikeways and/or in rare cases a vehicular Thoroughfare. Esplanades are more significant in design and width than Promenades. See **Promenade**.



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Municipality

Note: All requirements in this Table are subject to calibration for local context.



e. CIVIC SPACES (see Table 13)

Waterside Greenway	permitted	permitted	permitted	permitted	not permitted	not permitted	
Civic Basin	not permitted	not permitted	not permitted	permitted	permitted	permitted	
Waterside Square	not permitted	not permitted	not permitted	permitted	permitted	permitted	
Promenade	not permitted	not permitted	not permitted	permitted	permitted	permitted	
Esplanade	not permitted	not permitted	not permitted	permitted	permitted	permitted	
Cross Water Odeon	not permitted	not permitted	not permitted	not permitted	permitted	permitted	
Waterside Plaza	not permitted	not permitted	not permitted	not permitted	permitted	permitted	
Waterside Staircase	not permitted	not permitted	not permitted	not permitted	permitted	permitted	

f. WATERSIDE CIVIC FRONTAGE (see Table 13b)

Waterside Path	permitted	permitted	permitted	permitted	not permitted	not permitted	
Buffer	not permitted	permitted	permitted	permitted	not permitted	not permitted	
Double Planter	not permitted	permitted	permitted	permitted	not permitted	not permitted	
Curbside Planter	not permitted	not permitted	permitted	permitted	permitted	not permitted	
Waterside Planter	not permitted	not permitted	permitted	permitted	permitted	permitted	
Boardwalk	permitted	not permitted	not permitted	permitted	permitted	permitted	
Frontage Line Planter	not permitted	not permitted	not permitted	permitted	permitted	permitted	
Curbside Tree Wells	not permitted	not permitted	not permitted	permitted	permitted	permitted	
Waterside Tree Wells	not permitted	not permitted	not permitted	permitted	permitted	permitted	
Canalwalk	not permitted	not permitted	not permitted	not permitted	permitted	permitted	

j. PRIVATE FRONTAGES (see Table 7)

Yard & Private Dock	not permitted	permitted	permitted	not permitted	not permitted	not permitted	
Walled or Fenced Yard	not permitted	not permitted	permitted	permitted	not permitted	not permitted	
Patio & Fence	not permitted	not permitted	permitted	permitted	not permitted	not permitted	
Full Terrace	not permitted	not permitted	not permitted	permitted	permitted	not permitted	
Waterside Stoop	not permitted	not permitted	not permitted	permitted	permitted	not permitted	
Waterside Zaguan	not permitted	not permitted	not permitted	permitted	permitted	not permitted	
Private Portal	not permitted	not permitted	not permitted	permitted	permitted	not permitted	

ARTICLE 5

ARTICLE 3

These annotations are advisory only. The SmartCode itself appears only on the right side of each spread.

TABLE 17 DEFINITIONS ILLUSTRATED

A. Lot Layers and Frontages

ii. Lots Enfronting Waterside Civic Frontage and a Thoroughfare

Lots disposed between a Thoroughfare and Waterside Civic Frontage feature a Principal Frontage of higher pedestrian importance toward the Thoroughfare and a Secondary Frontage of lesser pedestrian importance toward the waterbody. In the base SmartCode, parking is permitted in the second and third layers of most Transect Zones; this may require further regulation in the calibration if parking visible from the Waterside Civic Frontage compromises the civic experience.

B. Waterside Civic Frontage Sections

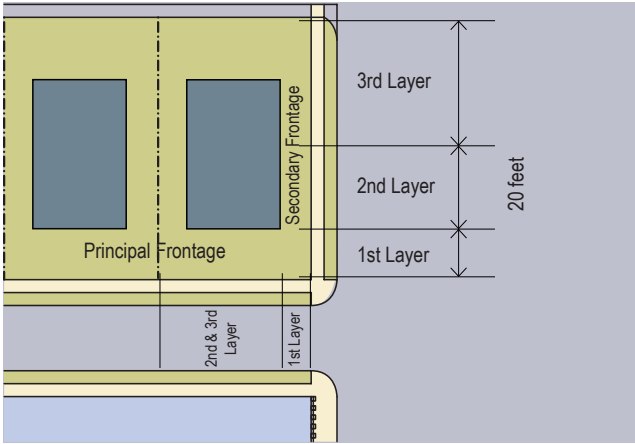
i. Lots Enfronting Waterside Thoroughfares

On occasion the civic nature of the waterbody attracts so much attention and use that adjacent thoroughfares can be temporarily claimed as Civic Space themselves, blocked off for festivals, races, or just car-free zones. For example, MLK Drive along Philadelphia’s Schuylkill River is closed to automobile traffic for a 4-mile stretch every weekend most of the year. Such temporary Civic Space should not count toward the Civic Space minimum in Article 3.

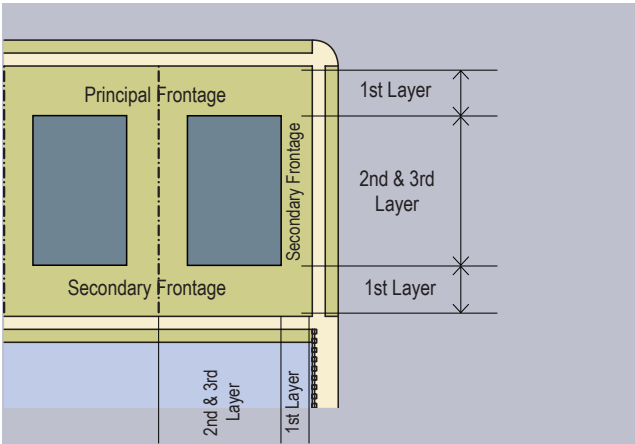
Municipality

A. LOT LAYERS AND FRONTAGES

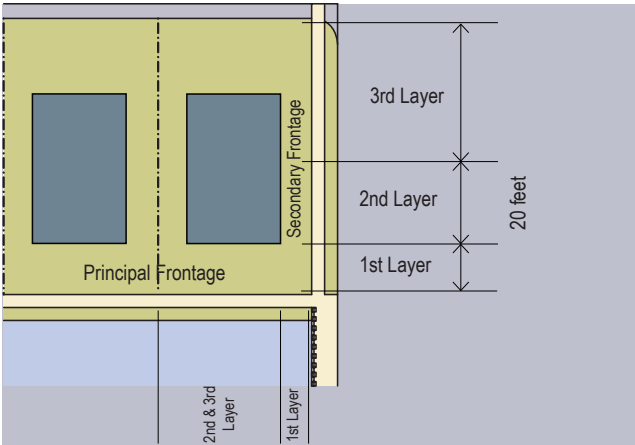
i. Lots Enfronting a Waterside Thoroughfare



ii. Lots Enfronting Waterside Civic Frontage and a Thoroughfare

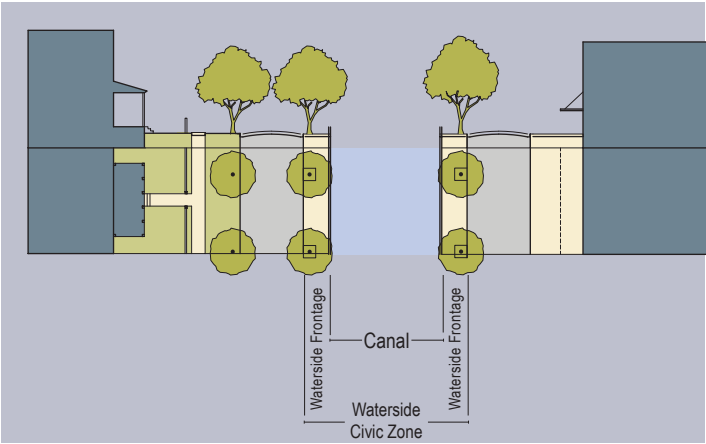


iii. Lots Enfronting Waterside Civic Frontage

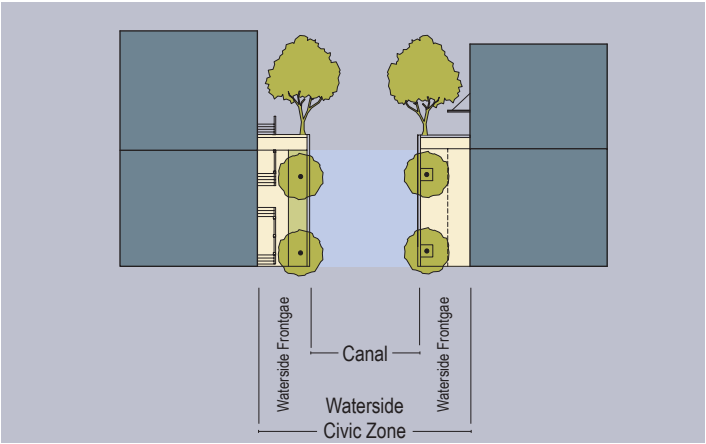


B. WATERSIDE CIVIC FRONTAGE SECTIONS

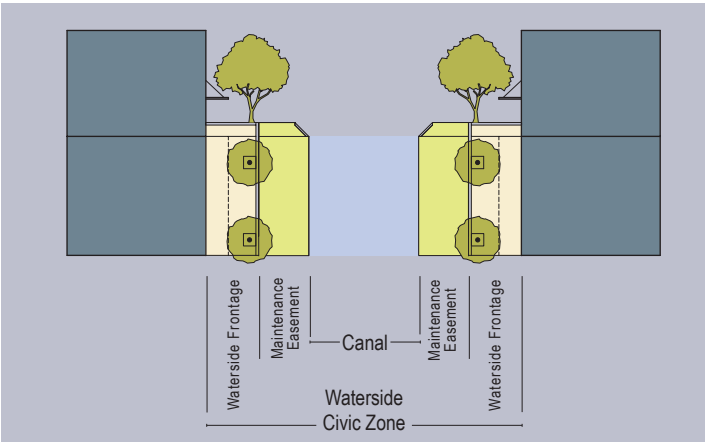
i. Lots Enfronting a Waterside Thoroughfare (Class 1 Canal)



ii. Lots Enfronting Waterside Civic Frontage (Class 1 Canal)



iii. Lots Enfronting Waterside Civic Frontage (Class 2 - Irrigation Canal)



ARTICLE 7. DEFINITIONS OF TERMS

**Basin:** an area alongside or at the end of a Canal, wider than the general width of the Canal, designed for the mooring or turning of boats without impeding the progress of other water traffic.

**Bulkhead:** a retaining wall or riprap revetment constructed along a shoreline to control scour, water and ice erosion.

**Buffer:** a vegetated area, including trees, shrubs, and/or other herbaceous vegetation, that exists or is established to protect a stream system, lake, reservoir, coastal estuarine area or Canal.

**Canal:** an artificial linear waterway or artificially improved river used for travel, recreation, shipping, or irrigation that is between 20 and 300 feet in width.

**Civic Basin:** a Civic Space type for unstructured recreation, enfronting a Basin.

**Cross Water Odeon:** a Civic Space type enfronting both banks of a Canal for Civic purposes and public theatrical productions.

**Esplanade:** a controlled pedestrian sequence designed to be an aesthetic experience. Esplanades are more significant in design and width than Promenades. See **Promenade**.

**Frontage, Principal:** the Frontage facing the public space such as a Thoroughfare or Canal of higher pedestrian importance and designated to bear the address and the Principal Entrance to the Building.

**Frontage, Secondary:** the Frontage facing the public space such as a Thoroughfare or Canal that is of lesser pedestrian importance.

**Frontage Line:** a Lot line bordering a Public Frontage, Waterside Frontage, or Canal. Facades facing Frontage Lines define the public realm and are therefore more regulated than the Elevations facing other Lot lines. See Table 17.

**Promenade:** a controlled pedestrian sequence designed to be an aesthetic experience.

**Public Mooring Area:** a publicly accessible embankment or Bulkhead for the mooring or anchoring of boats.

**Viewing Station:** a platform, deck or bumpout for scenic viewing.

**Waterside:** adjacent to a Canal or other waterbody.

**Waterside Civic Frontage:** the area dedicated for public use between the Curb of a Vehicular Lane and the Bulkhead or embankment of a Canal, or between a Frontage Line and the Bulkhead or embankment of a Canal.

**Waterside Civic Space:** Open Space dedicated as a publicly accessible waterfront including a Canal or other waterbody.

**Waterside Greenway:** a linear Civic Space type enfronting a Canal or other waterbody, available for unstructured recreation and non-vehicular commuting.

**Waterside Staircase:** a Civic Space type enfronting a Canal or other waterbody that provides pedestrian movement from one elevation to another, unstructured recreation, and/or audience seating on steps.

**Zaguan:** a Private Frontage featuring an entryway passage leading to internal doorways for one or more private residences.