THOROUGHFARE STANDARDS REPLACEMENT SMARTCODE MODULE

PREPARED BY DUANY PLATER-ZYBERK & COMPANY WITH SANDY SORLIEN

To find new things, take the path you took yesterday.

John Burroughs

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

The Thoroughfare Standards Replacement Module is regulatory. It is written with "shall" language to be inserted into the Base Code with little or no modification.

The extent to which this content may be implemented is subject to state law and local political support. If the municipality is unable to mandate these standards, they may be changed to "should" language, especially where "shall" appears in colored text, or included in a separate set of design guidelines.

THOROUGHFARE STANDARDS REPLACEMENT MODULE

This Module is intended to be numbered as Article 2 after the removal of the Base Code's Article 2, Article 3, and Article 4. It would be used only in codes where all Transect Zone mapping has already been done, when the code will be adopted only for that Regulating Plan. In the resulting Transect Zoning SmartCode, there is no need to include standards for Regional Scale Plans or Community Scale Plans.

However, it is still necessary to regulate the Thoroughfares. Even in existing urbanism, there is always the potential for future streetscape improvements, traffic calming, road diets, new street trees, new natural drainage, restriping of lanes, and new parking patterns. Some plans may even call for new thoroughfares to break up overlarge blocks.

All Tables referenced in this Module should be included in the final assembled code. They can be found in the Base Code.

Delete any Transect Zones that do not appear in the Regulating Plan (Transect Zoning Map), and change table numbers as necessary.

REPLACEMENT MODULE FOR TRANSECT ZONING SMARTCODE, TO REPLACE ARTICLE 2, ARTICLE 3, AND ARTICLE 4 OF THE BASE CODE.

ARTICLE 2. THOROUGHFARE STANDARDS

2.1 INSTRUCTIONS

- 2.1.1 Thoroughfares are intended for use by vehicular and pedestrian traffic and to provide access to Lots and Civic Spaces. Thoroughfares shall generally consist of Vehicular Lanes and Public Frontages.
- 2.1.2 Thoroughfares shall be designed in context with the physical form and desired design speed of the Transect Zones through which they pass. The Public Frontages of Thoroughfares that pass from one Transect Zone to another should be adjusted accordingly or, alternatively, the Transect Zone may follow the alignment of the Thoroughfare to the depth of one Lot, retaining a single Public Frontage throughout its trajectory. See Table 4C.
- 2.1.3 Within the more urban zones (T3 through T6), pedestrian comfort shall be a primary consideration of the Thoroughfare. Design conflict between vehicular and pedestrian movement generally shall be decided in favor of the pedestrian.
- 2.1.4 All Thoroughfares shall terminate at other Thoroughfares, forming a network. Cul-desacs shall be subject to approval by Warrant to accommodate specific site conditions only.
- 2.1.5 Each Lot shall Enfront a vehicular Thoroughfare, except that 20% of the Lots within each Transect Zone may Enfront a Passage.
- 2.1.6 Designated B Streets may be exempted by Warrant from one or more of the specified Public Frontage or Private Frontage requirements.
- 2.1.7 Standards for Paths and Bicycle Trails shall be approved by Warrant.
- 2.1.8 Standards for Thoroughfares within Special Districts shall be determined by Variance.

2.2 VEHICULAR LANES

2.2.1 GENERAL TO ALL ZONES T1, T2, T3, T4, T5, T6

- a. Thoroughfares may include vehicular lanes in a variety of widths for parked and for moving vehicles, including bicycles. The standards for vehicular lanes shall be as shown in Table 3A.
- b. A bicycle network consisting of Bicycle Trails, Bicycle Routes and Bicycle Lanes should be provided throughout the community. The community bicycle network shall be connected to existing or proposed regional networks wherever possible.

2.3 PUBLIC FRONTAGES

2.3.1 GENERAL TO ALL ZONES T1, T2, T3, T4, T5, T6

- a. The Public Frontage contributes to the character of the Transect Zone, and includes the types of Sidewalks, Curbs, planters, Bikeways, and street trees.
- b. Public Frontages should be designed as shown in Table 4A and Table 4B and allocated within Transect Zones as specified in Table 14d.
- c. Within the Public Frontages, the prescribed types of Public Planting and Public Lighting shall be as shown in Table 4A, Table 4B, Table 5 and Table 6. The

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

SUPPLEMENTARY MODULES

One or more of these Supplementary Modules, or parts of them, may be added to the Thoroughfare Standards as necessary.

spacing may be adjusted by Warrant to accommodate specific site conditions.

2.3.2 **S**PECIFIC **To Zones T1, T2, T3**

- a. The Public Frontage shall include trees of various species, naturalistically clustered, as well as understory.
- b. The introduced landscape shall consist primarily of native species requiring minimal irrigation, fertilization and maintenance.

2.3.3 **S**PECIFIC **To Zones T4, T5, T6**

a. The introduced landscape shall consist primarily of durable species tolerant of soil compaction.

2.3.4 Specific To Zone T4

a. The Public Frontage shall include trees planted in a regularly-spaced Allee pattern of single or alternated species with shade canopies of a height that, at maturity, clears at least one Story.

2.3.5 Specific To Zones T5, T6

- a. The Public Frontage shall include trees planted in a regularly-spaced Allee pattern of single species with shade canopies of a height that, at maturity, clears at least one Story. At Retail Frontages, the spacing of the trees may be irregular, to avoid visually obscuring the Shopfronts.
- b. Streets with a Right-of-Way width of 40 feet or less shall be exempt from the tree requirement.

SUPPLEMENTARY MODULES PERTAINING TO THOROUGHFARES:

BICYCLING
LANDSCAPE
LIGHT IMPRINT
LIGHTING DESIGN
LIGHT LEVELS
NATURAL DRAINAGE
SPRAWL REPAIR
SUSTAINABLE URBANISM – STORMWATER MANAGEMENT
SUSTAINABLE URBANISM - TREE CANOPY COVER
TRANSIT ORIENTED DEVELOPMENT

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

DEFINITIONS

This version of the Definitions has had all terms removed that occur only in Article 2, Article 3, and Article 4 of the Base Code. It is intended to be inserted after the calibrated Transect Zoning Code. Some terms may need local calibration, some may require deletion after the code is finished, and new terms may be added as necessary. Do not include any terms that do not appear in the final code to be adopted.

All terms appearing in this Definitions section should be capitalized in the code text.

DEFINITIONS

This Article provides definitions for terms in this Code that are technical in nature or that otherwise may not reflect a common usage of the term. If a term is not defined in this Article, then the CRC shall determine the correct definition. Items in italics refer to Articles, Sections, or Tables in the SmartCode.

Accessory Building: an Outbuilding with an Accessory Unit.

Accessory Unit: an Apartment not greater than 440 square feet sharing ownership and utility connections with a Principal Building; it may or may not be within an Outbuilding. See Table 10 and Table 17. (Syn: ancillary unit)

Affordable Housing: dwellings consisting of rental or for-sale units that have a rent (including utilities) or mortgage payment typically no more than 30% of the income of families earning no more than 80% of median incomes by family size for the county. (Alt. definition: rental or for-sale dwellings that are economically within the means of the starting salary of a local elementary school teacher.)

Allee: a regularly spaced and aligned row of trees usually planted along a Thoroughfare or Path.

Apartment: a Residential unit sharing a building and a Lot with other units and/or uses; may be for rent, or for sale as a condominium.

Arcade: a Private Frontage conventional for Retail use wherein the Facade is a colonnade supporting habitable space that overlaps the Sidewalk, while the Facade at Sidewalk level remains at the Frontage Line.

Attic: the interior part of a building contained within a pitched roof structure.

Avenue (AV): a Thoroughfare of high vehicular capacity and low to moderate speed, acting as a short distance connector between urban centers, and usually equipped with a landscaped median.

Backbuilding: a single-Story structure connecting a Principal Building to an Outbuilding. See Table 17.

Bed and Breakfast: an owner-occupied Lodging type offering 1 to 5 bedrooms, permitted to serve breakfast in the mornings to guests.

Bicycle Lane (BL): a dedicated lane for cycling within a moderate-speed vehicular Thoroughfare, demarcated by striping.

Bicycle Route (BR): a Thoroughfare suitable for the shared use of bicycles and automobiles moving at low speeds.

Bicycle Trail (BT): a bicycle way running independently of a vehicular Thoroughfare

Bikeway: any designated Thoroughfare or part of a Thoroughfare for bicycling. See **Bicycle Lane**, **Bicycle Route**, and **Bicycle Trail**.

Block: the aggregate of private Lots, Passages, Rear Alleys and Rear Lanes, circumscribed by Thoroughfares.

Block Face: the aggregate of all the building Facades on one side of a Block.

Boulevard (BV): a Thoroughfare designed for high vehicular capacity and moderate speed, traversing an Urbanized area. Boulevards are usually equipped with Slip Roads buffering Sidewalks and buildings.

By Right: characterizing a proposal or component of a proposal for a Building Scale Plan (*Article 3*) that complies with the SmartCode and is permitted and processed administratively, without public hearing. See **Warrant** and **Variance**.

CRC: Consolidated Review Committee.

Civic: the term defining not-for-profit organizations dedicated to arts, culture, education, recreation, government, transit, and municipal parking.

Civic Building: a building operated by not-for-profit organizations dedicated to arts, culture, education, recreation, government, transit, and municipal parking, or for use approved by the legislative body.

Civic Parking Reserve: Parking Structure or parking lot within a quarter-mile of the site that it serves. See Section 3.9.2.

Civic Space: an outdoor area dedicated for public use. Civic Space types are defined by the combination of certain physical constants including the relationships among their intended use, their size, their landscaping and their Enfronting buildings. See *Table 13*.

Civic Zone: designation for public sites dedicated for Civic Buildings and Civic Space.

Commercial: the term collectively defining workplace, Office, Retail, and Lodging Functions.

Common Yard: a planted Private Frontage wherein the Facade is set back from the Frontage line. It is visually continuous with adjacent yards. *See Table 7*.

Configuration: the form of a building, based on its massing, Private Frontage, and height.

Consolidated Review Committee (CRC): Usually part of the Planning Office, a CRC is comprised of a representative from each of the various regulatory agencies that have jurisdiction over the permitting of a project, as well as a representative of the Development and Design Center. See Section 1.4.3.

Corridor: a lineal geographic system incorporating transportation and/or Greenway trajectories. A transportation Corridor may be a lineal Transect Zone.

Cottage: an Edgeyard building type. A single-family dwelling, on a regular Lot, often shared with an Accessory Building in the back yard.

Courtyard Building: a building that occupies the boundaries of its Lot while internally defining one or more private patios. See Table 9.

Curb: the edge of the vehicular pavement that may be raised or flush to a Swale. It usually incorporates the drainage system. *See Table 4A and Table 4B.*

Density: the number of dwelling units within a standard measure of land area.

Design Speed: is the velocity at which a Thoroughfare tends to be driven without the constraints of signage or enforcement. There are four ranges of speed: Very Low: (below 20 MPH); Low: (20-25 MPH); Moderate: (25-35 MPH); High: (above 35 MPH). Lane width is determined by desired Design Speed. *See Table 3A*.

Developable Areas: lands other than those in the O-1 Preserved Open Sector.

Development and Design Center (DDC): A component of the Planning Office assigned to advise on the use of this Code and to aid in the design of the communities and buildings based on it.

Disposition: the placement of a building on its Lot. See Table 9 and Table 17.

Dooryard: a Private Frontage type with a shallow Setback and front garden or patio, usually with a low wall at the Frontage Line. See Table 7. (Variant: **Lightwell**, light court.)

Drive: a Thoroughfare along the boundary between an Urbanized and a natural condition, usually along a waterfront, Park, or promontory. One side has the urban character of a Thoroughfare, with Sidewalk and building, while the other has the qualities of a Road or parkway, with naturalistic planting and rural details.

Driveway: a vehicular lane within a Lot, often leading to a garage. See Section 3.10 and Table 3B-f.

Edgeyard Building: a building that occupies the center of its Lot with Setbacks on all sides. See *Table 9*.

Effective Parking: the amount of parking required for Mixed Use after adjustment by the Shared Parking Factor. *See Table 11.*

Effective Turning Radius: the measurement of the inside Turning Radius taking parked cars into account. See *Table 17*.

Elevation: an exterior wall of a building not along a Frontage Line. See *Table 17*. See: **Facade.**

Encroach: to break the plane of a vertical or horizontal regulatory limit with a structural element, so that it extends into a Setback, into the Public Frontage, or above a height limit.

Encroachment: any structural element that breaks the plane of a vertical or horizontal regulatory limit, extending into a Setback, into the Public Frontage, or above a height limit.

Enfront: to place an element along a Frontage, as in "porches Enfront the street"

Estate House: an Edgeyard building type. A single-family dwelling on a very large Lot of rural character, often shared by one or more Accessory Buildings. (Syn: country house, villa)

Facade: the exterior wall of a building that is set along a Frontage Line. See **Elevation.**

Forecourt: a Private Frontage wherein a portion of the Facade is close to the Frontage Line and the central portion is set back. *See Table 7.*

Frontage: the area between a building Facade and the vehicular lanes, inclusive of its built and planted components. Frontage is divided into Private Frontage and Public Frontage. See Table 4A and Table 7.

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

Function: the use or uses accommodated by a building and its Lot, categorized as Restricted, Limited, or Open, according to the intensity of the use. See *Table 10* and *Table 12*.

Gallery: a Private Frontage conventional for Retail use wherein the Facade is aligned close to the Frontage Line with an attached cantilevered shed or lightweight colonnade overlapping the Sidewalk. *See Table 7.*

Green: a Civic Space type for unstructured recreation, spatially defined by landscaping rather than building Frontages. See *Table 13*.

Greenway: an Open Space Corridor in largely natural conditions which may include trails for bicycles and pedestrians.

Home Occupation: non-Retail Commercial enterprises. The work quarters should be invisible from the Frontage, located either within the house or in an Outbuilding. Permitted activities are defined by the Restricted Office category. See *Table 10*.

House: an Edgeyard building type, usually a single-family dwelling on a large Lot, often shared with an Accessory Building in the back yard. (Syn: single.)

Infill: noun - new development on land that had been previously developed, including most Greyfield and Brownfield sites and cleared land within Urbanized areas. verb- to develop such areas.

Inn: a Lodging type, owner-occupied, offering 6 to 12 bedrooms, permitted to serve breakfast in the mornings to guests. See *Table 10*.

Layer: a range of depth of a Lot within which certain elements are permitted. See Table 17.

Lightwell: A Private Frontage type that is a below-grade entrance or recess designed to allow light into basements. See Table 7. (Syn: light court.)

Liner Building: a building specifically designed to mask a parking lot or a Parking Structure from a Frontage.

Live-Work: a Mixed Use unit consisting of a Commercial and Residential Function. The Commercial Function may be anywhere in the unit. It is intended to be occupied by a business operator who lives in the same structure that contains the Commercial activity or industry. See **Work-Live**. (Syn.: flexhouse.)

Lodging: premises available for daily and weekly renting of bedrooms. See Table 10 and Table 12.

Lot: a parcel of land accommodating a building or buildings of unified design. The size of a Lot is controlled by its width in order to determine the grain (i.e., fine grain or coarse grain) of the urban fabric.

Lot Line: the boundary that legally and geometrically demarcates a Lot.

Lot Width: the length of the Principal Frontage Line of a Lot.

Main Civic Space: the primary outdoor gathering place for a community. The Main Civic Space is often, but not always, associated with an important Civic Building.

Manufacturing: premises available for the creation, assemblage and/or repair of artifacts, using table-mounted electrical machinery or artisanal equipment, and including their Retail sale.

Meeting Hall: a building available for gatherings, including conferences, that accommodates at least one room equivalent to a minimum of 10 square feet per projected dwelling unit within the Pedestrian Shed in which it is located.

Mixed Use: multiple Functions within the same building through superimposition or adjacency, or in multiple buildings by adjacency, or at a proximity determined by Warrant.

Net Site Area: all developable land within a site including Thoroughfares but excluding land allocated as Civic Zones.

Office: premises available for the transaction of general business but excluding Retail, artisanal and Manufacturing uses. *See Table 10.*

Open Space: land intended to remain undeveloped; it may be for Civic Space.

Outbuilding: an Accessory Building, usually located toward the rear of the same Lot as a Principal Building, and sometimes connected to the Principal Building by a Backbuilding. *See Table 17.*

Park: a Civic Space type that is a natural preserve available for unstructured recreation. See *Table 13*.

Parking Structure: a building containing one or more Stories of parking above grade.

Passage (PS): a pedestrian connector, open or roofed, that passes between buildings to provide shortcuts through long Blocks and connect rear parking areas to Frontages.

Path (PT): a pedestrian way traversing a Park or rural area, with landscape matching the contiguous Open Space, ideally connecting directly with the urban Sidewalk network.

Planter: the element of the Public Frontage which accommodates street trees, whether continuous or individual.

Plaza: a Civic Space type designed for Civic purposes and Commercial activities in the more urban Transect Zones, generally paved and spatially defined by building Frontages.

Principal Building: the main building on a Lot, usually located toward the Frontage. See *Table 17*.

Principal Entrance: the main point of access for pedestrians into a building.

Principal Frontage: On corner Lots, the Private Frontage designated to bear the address and Principal Entrance to the building, and the measure of minimum Lot width. Prescriptions for the parking Layers pertain only to the Principal Frontage. Prescriptions for the first Layer pertain to both Frontages of a corner Lot. See **Frontage**.

Private Frontage: the privately held Layer between the Frontage Line and the Principal Building Facade. *See Table 7 and Table 17.*

Public Frontage: the area between the Curb of the vehicular lanes and the Frontage Line. *See Table 4A and Table 4B.*

Rear Alley (RA): a vehicular way located to the rear of Lots providing access to service areas, parking, and Outbuildings and containing utility easements. Rear Alleys should be paved from building face to building face, with drainage by inverted crown at the center or with roll Curbs at the edges.

Rear Lane (RL): a vehicular way located to the rear of Lots providing access to service areas, parking, and Outbuildings and containing utility easements. Rear Lanes may be paved lightly to Driveway standards. The streetscape consists of gravel or landscaped edges, has no raised Curb, and is drained by percolation.

Rearyard Building: a building that occupies the full Frontage Line, leaving the rear of the Lot as the sole yard. *See Table 9.* (Var: Rowhouse, Townhouse, Apartment House)

Regulating Plan: a Zoning Map or set of maps that shows the Transect Zones, Civic Zones, Special Districts if any, and Special Requirements if any, of areas subject to, or potentially subject to, regulation by the SmartCode.

Residential: characterizing premises available for long-term human dwelling.

Retail: characterizing premises available for the sale of merchandise and food service. See Table 10 and Table 12.

Retail Frontage: Frontage designated on a Regulating Plan that requires or recommends the provision of a Shopfront, encouraging the ground level to be available for Retail use. See Special Requirements.

Road (RD): a local, rural and suburban Thoroughfare of low-to-moderate vehicular speed and capacity. This type is allocated to the more rural Transect Zones (T1-T3). See *Table 3A*.

Rowhouse: a single-family dwelling that shares a party wall with another of the same type and occupies the full Frontage Line. See **Rearyard Building**. (Syn: **Townhouse**)

Secondary Frontage: on corner Lots, the Private Frontage that is not the Principal Frontage. As it affects the public realm, its First Layer is regulated. *See Table 17.*

Setback: the area of a Lot measured from the Lot line to a building Facade or Elevation that is maintained clear of permanent structures, with the exception of Encroachments listed in *Section 3.7*. *See Table 14g.* (Var: build-to line, build-to zone.)

Shared Parking Factor: an accounting for parking spaces that are available to more than one Function. *See Table 11.*

Shopfront: a Private Frontage conventional for Retail use, with substantial glazing and an awning, wherein the Facade is aligned close to the Frontage Line with the building entrance at Sidewalk grade. *See Table 7*.

Sidewalk: the paved section of the Public Frontage dedicated exclusively to pedestrian activity.

Sideyard Building: a building that occupies one side of the Lot with a Setback on the other side. This type can be a Single or Twin depending on whether it abuts the neighboring house. See *Table 9*.

Special Requirements: provisions of Section 3.9, Section 4.7, and Section 5.3 of this Code and/or the associated designations on a Regulating Plan or other map for those provisions.

Square: a Civic Space type designed for unstructured recreation and Civic purposes, spatially defined by building Frontages and consisting of Paths, lawns and trees, formally disposed. *See Table 13*.

Stoop: a Private Frontage wherein the Facade is aligned close to the Frontage Line with the first Story elevated from the Sidewalk for privacy, with an exterior stair and landing at the entrance. *See Table 7*.

Story: a habitable level within a building, excluding an Attic or raised basement. See *Table 8*.

Street (ST): a local urban Thoroughfare of low speed and capacity. See Table 3B and Table 4B.

Streetscreen: a freestanding wall built along the Frontage Line, or coplanar with the Facade. It may mask a parking lot from the Thoroughfare, provide privacy to a side yard, and/or strengthen the spatial definition of the public realm. (Syn: streetwall.) See Section 3.7.5f.

Substantial Modification: alteration to a building that is valued at more than 50% of the replacement cost of the entire building, if new.

Swale: a low or slightly depressed natural area for drainage.

T-zone: Transect Zone.

Terminated Vista: a location at the axial conclusion of a Thoroughfare. A building located at a Terminated Vista designated on a Regulating Plan is required or recommended to be designed in response to the axis.

Thoroughfare: a way for use by vehicular and pedestrian traffic and to provide access to Lots and Open Spaces, consisting of Vehicular Lanes and the Public Frontage. See Table 3A, Table 3B and Table 17a.

Townhouse: See Rearyard Building. (Syn: Rowhouse)

Transect: a cross-section of the environment showing a range of different habitats. The rural-urban Transect of the human environment used in the SmartCode template is divided into six Transect Zones. These zones describe the physical form and character of a place, according to the Density and intensity of its land use and Urbanism.

Transect Zone (T-zone): One of several areas on a Zoning Map regulated by the SmartCode. Transect Zones are administratively similar to the land use zones in conventional codes, except that in addition to the usual building use, Density, height, and Setback requirements, other elements of the intended habitat are integrated, including those of the private Lot and building and Public Frontage. See Table 1.

Turning Radius: the curved edge of a Thoroughfare at an intersection, measured at the inside edge of the vehicular tracking. The smaller the Turning Radius, the smaller the pedestrian crossing distance and the more slowly the vehicle is forced to make the turn. See Table 3B and Table 17.

Urbanism: collective term for the condition of a compact, Mixed Use settlement, including the physical form of its development and its environmental, functional, economic, and sociocultural aspects.

Urbanized: generally, developed. Specific to the SmartCode, developed at T-3 (Sub-Urban) Density or higher.

Variance: a ruling that would permit a practice that is not consistent with either a specific provision or the Intent of this Code (Section 1.3). Variances are usually granted by the Board of Appeals in a public hearing. See Section 1.5.

Warrant: a ruling that would permit a practice that is not consistent with a specific provision of this Code, but that is justified by its Intent (Section 1.3). Warrants are usually granted administratively by the CRC. See Section 1.5.

Work-Live: a Mixed Use unit consisting of a Commercial and Residential Function. It typically has a substantial Commercial component that may accommodate employees and walk-in trade. The unit is intended to function predominantly as work space with incidental Residential accommodations that meet basic habitability requirements. See **Live-Work.** (Syn: Live-With.)

Yield: characterizing a Thoroughfare that has two-way traffic but only one effective travel lane because of parked cars, necessitating slow movement and driver negotiation. Also, characterizing parking on such a Thoroughfare.

Zoning Map: the official map or maps that are part of the zoning ordinance and delineate the boundaries of individual zones and districts. See **Regulating Plan**.