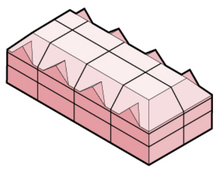
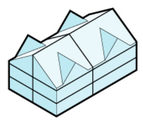
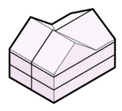
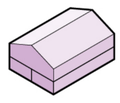
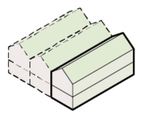
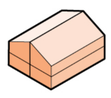
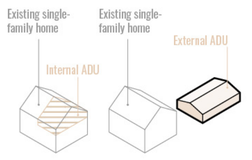
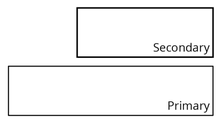
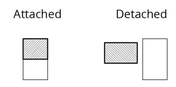
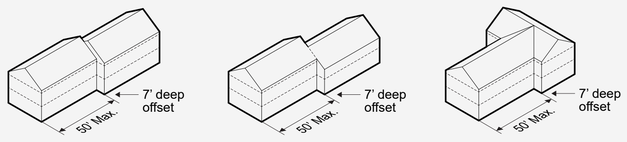
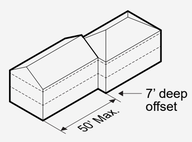
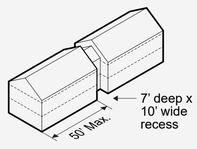
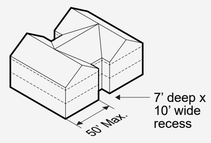
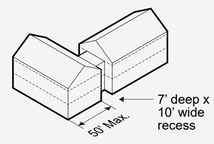
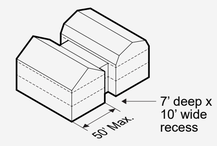
Cape Cod Multifamily Housing Design Guidelines Building Typologies

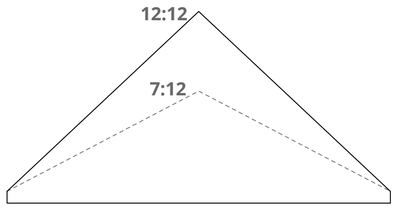
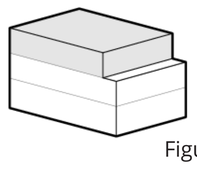
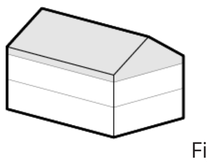
These Design Guidelines are meant to extend the unique cultural landscape of Cape Cod into the future, ensure healthy and vibrant spaces, make the Cape more resilient and a contributor to the State's carbon emissions reduction goals, and inspire more predictable built-form outcomes, helping to build support for new housing.

This matrix includes columns for each building type: corridor building, medium and small multifamily, triplex, townhouses, duplexes, and accessory dwelling units. Rows include building dimensional and sustainability standards, and general design guidelines for building attributes, and building placement and landscape.

Building Dimensional Standards

	A	B	C	D	E	F	G	H
Building Typologies	**Corridor 13+ units**	**Medium Multifamily 7 – 12 Units**	**Small Multifamily 4 – 6 units**	**Triplex 3 units**	**Townhouses 3 – 5 units**	**Stacked Duplex 2 units**	**Side-by-side Duplex 2 units**	**Accessory Dwelling Unit**
Typology Diagram								
Stories	3+	2 – 3	1.5 – 3	2 – 3	1 – 2.5	2 – 3	1.5 – 2	1 - 2
Suitable for Mixed Use	✓	✓	✓					
Max. Footprint	• Primary Mass: 15K sf Max • Secondary Mass: 10K sf Max 	4,500 sf 	3,000 sf 	2,500 sf 	900 sf per townhouse module 	1,500 sf 	2,500 sf 	• 750 sf (attached) • 1,000 sf (detached) 

Max. Facade Length	The facade and roof form of any building may be continuous up 50', after which:
	• The facade must be divided vertically by a recess or offset at least 7' deep and 10' wide *and*
	• The corresponding roof form must be changed in at least one way below:
	  • Roof form type (e.g., pitched, hip, etc.)
	  • Roof ridge orientation
	  • Roof ridge height of at least 5'
	  • Roof ridge alignment of at least 7'
		Example facade and roof form articulation combinations:
		 
		Facade offset + Change in roof ridge alignment
		
		Facade offset + Change in roof ridge height
		
		Facade offset + Change in roof ridge orientation
		 
		Facade offset + Change in roof form type (pitched to hip)
		 
		Facade recess + Change in roof ridge height
		 
		Facade recess + Change in roof ridge orientation
		 
		Facade recess + Change in roof form type (pitched to flat) + Change in roof ridge orientation
		 
		Facade recess + Change in roof form types (pitched to flat to gambrel)						

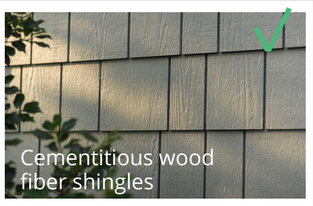
Roof Form/ Pitch	• Pitched roofs with a slope less than 12:12, greater than 7:12 are encouraged (Figure 1) • Flat roofs are discouraged; they may be appropriate in areas where existing development includes flat-roofed, row-house style structures, or on some portions of a building • If a third floor is created, it should be set back (Figure 2) or within a roof form (Figure 3) to maintain a traditional scale to the building	 Figure 1			• The slope of a pitched roof of an unoccupied attic space must be at least 5:12. • Roof dormers should cover no more than 75% of roof slope with 3' setbacks from all sides • Roof dormers should be no wider than 12' each and separated from each other by at least 3'	 Figure 2	 Figure 3	

Building Sustainability

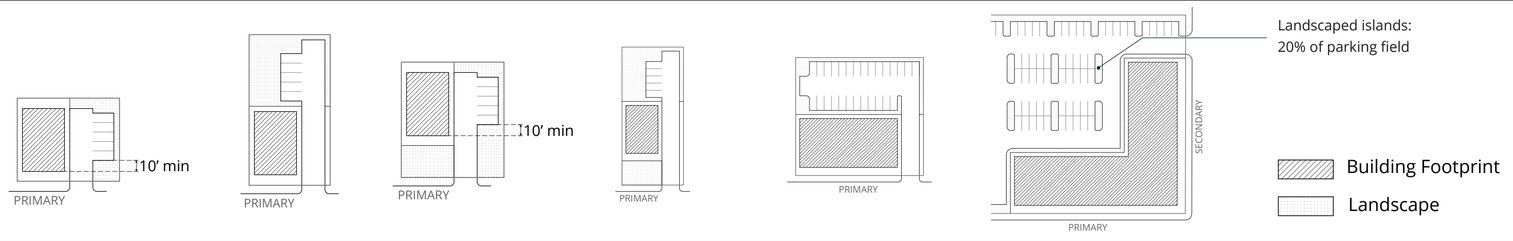
	A	B	C	D	E	F	G	H
Building Efficiency	• Buildings should meet or exceed MA Residential or Commercial (Group R) Stretch Code standard depending on building size	• Buildings should meet or exceed MA Residential Stretch Code standard (HERS or Passive House compliance pathways) • Designs should prioritize envelope efficiency through air sealing, high performance windows, and continuous insulation (preferably using low embodied carbon materials like cellulose, wood fiber, or mineral wool).						
Mechanical Systems	• Meet or exceed MA Residential Stretch Code standards • All-electric systems, including cold-climate heat pumps for climate control are encouraged • Pre-wiring for electrification is encouraged for any remaining fossil-fuel based systems		• Systems should meet or exceed MA Residential Stretch Code standards • All-electric systems, including cold-climate heat pumps for space conditioning and hybrid heat pump water heaters for domestic hot water are encouraged • Balanced energy recovery ventilation is also highly encouraged • Pre-wiring for electrification is encouraged for any remaining fossil-fuel based systems					
Solar Orientation	• Roof design should enable maximum solar PV coverage • Mechanical equipment on low slope roofs should be consolidated to maximize PV area		• Building orientation with roofs facing south encouraged for optimal solar PV • A higher window-wall ratio on south facades relative to north, east, and west orientations is encouraged to yield favorable outcomes for heating and cooling loads and solar control					

General Design Guidelines

Building Attributes

Cladding Materials	• High quality natural materials such as wood, stone and brick are encouraged • Cedar shakes and clapboards are preferred materials for most residential structures • Allow cementitious wood fiber for clapboards/ shingles/trim on non-historic buildings • Siding materials such as aluminum or vinyl siding are discouraged • Avoid the use of faux materials      
Window to Wall Ratio	See Place Types Matrix for window to wall ratio guidelines
Window Types and Sizes	• Double-hung windows are preferred • Simulated Divided Lites (SDL's) provide high energy efficiency, thermal comfort, and durability. SDL's should look regionally appropriate by requiring snap-in muntins placed on top of the glass (Figure 3), rather than only between the glass. • Casement (Figure 1) and tilt/turn windows (Figure 2) which provide more airtight seals are permitted as energy-efficient alternatives to double-hung windows. These windows should be fitted with SDL's to appear regionally appropriate. • Sliding doors should not be allowed in front facades • Highly reflective and dark-tinted glass is discouraged • Regionally appropriate window-wall ratios range from 15-40%, see the "Place Types" matrix for more information • Regionally appropriate windows are vertically proportioned (at least 1.5 times taller than they are wide) • Glass panes that measure 6" wide by 8" high are quintessential, but larger window pane sizes are not uncommon in newer Cape Cod style homes   

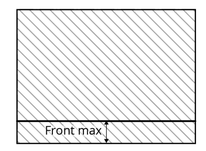
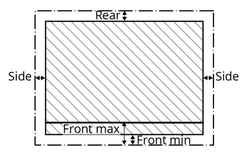
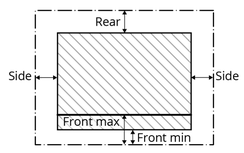
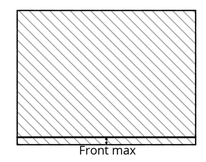
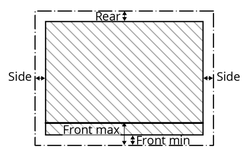
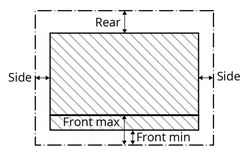
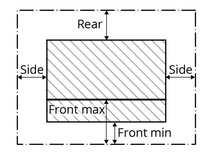
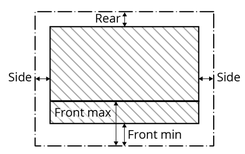
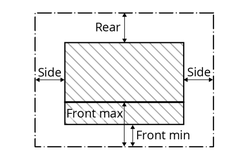
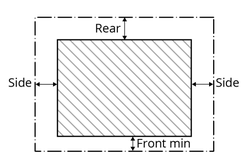
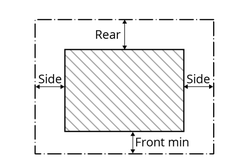
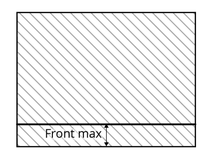
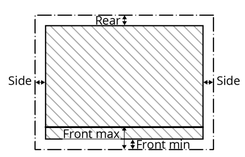
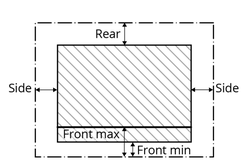
Building Placement and Landscape

Setbacks	See Place Types Matrix for setback requirements
Stormwater	On-site retention and treatment of stormwater
Landscaping	• Expansive areas (> 700 sf) of paving should be broken up with landscape planting • Minimize impervious surfaces • Use low-water, native plants • Landscape buffer should have a minimum 8' depth to screen commercial service areas and parking lots from residential areas
Parking Lots	• Landscaped islands should be 20% of parking field, 8 – 10' in width • Place parking to side or rear • Screen parking from view • New curb cuts on existing public ways should be minimized • Use permeable or pervious pavement • Design parking lots to accommodate average, not peak, volume • Side parking should be at least 10 feet behind front facade line 
Strategies to Conceal Larger Building(s)	• Utilize landscaped berms/buffers • Build larger structures into a slope or hillside where topography is suitable • Place larger structures behind traditionally scaled frontage buildings oriented along the street edge • Smaller structures such as gazebos, bicycle shelters and other pedestrian shelters can act as frontage buildings • Smaller masses that project forward from the primary building mass can reduce the overall scale and bulk of the building • Orient the short axis of a large building so that it is parallel to the street   

Cape Cod Multifamily Housing Design Guidelines Place Types

These Design Guidelines are meant to extend the unique cultural landscape of Cape Cod into the future, ensure healthy and vibrant spaces, make the Cape more resilient and a contributor to the State's carbon emissions reduction goals, and inspire more predictable built-form outcomes, helping to build support for new housing.

This matrix includes rows for each place type including community activity centers, historic, suburban, rural and maritime areas, and columns with building typologies, setbacks, and front facade window-to-wall ratios that are appropriate for the different place types to encourage pedestrian-focused buildings. Historic buildings don't need to change to meet setbacks or window-to-wall ratios.

	Sub-categories		Characteristics	Examples	Building Typologies	Setbacks Following desired setback pattern			Front Facade Window-to-wall Ratio This ratio is meant for facades along main streets in commercial/mixed use areas	
Place Types	**Community Activity Centers**	Most dense		Characterized by shared building walls and zero setbacks	• Downtown Provincetown • Falmouth • Hyannis • Chatham • Mashpee	Corridor; Medium Multifamily 7 – 12 Units; Townhouses 3 – 5 units	**Front** **Side** **Rear**	0' min 15' max 0' min 0' min		**Upper Stories** **Ground Floor**	15% min 70% min
		Moderate density		Characterized by space between structures and some suburban forms	• Downtown Orleans • Harwich Port • Dennis Port • West Dennis • South Yarmouth • Woods Hole • Buzzards Bay	Medium Multifamily 7 – 12 Units; Small Multifamily 4 – 6 units; Townhouses 3 – 5 units	**Front** **Side** **Rear**	2' min 15' max 7' min 7' min		**Upper Stories** **Ground Floor**	15% min 60% min
		Less dense		Characterized by front and side yards and a more residential feel	• Wellfleet Village • Dennis Village • Barnstable Village • Sandwich Village • Osterville	Small Multifamily 4 – 6 units; Triplex; Townhouses 3 – 5 units	**Front** **Side** **Rear**	10' min 20' max 10' min 10' min		**Upper Stories** **Ground Floor**	
	Historic	Most dense		Characterized by shared building walls, zero setbacks, and historic door/ window patterns	• Downtown Provincetown • Downtown Hyannis • Chatham	Medium Multifamily 7 – 12 Units; Townhouses 3 – 5 units; Small Multifamily 4 – 6 units	**Front** **Side** **Rear**	0' min 10' max 0' min 0' min		**Upper Stories** **Ground Floor**	15% min 60% min
		Moderate density		Characterized by small groups of attached buildings surrounded by residential scale structures	• Harwich Port • Wellfleet Main Street • Harwich Center • Sandwich Village	Small Multifamily 4 – 6 units; Townhouses 3 – 5 units; Triplex	**Front** **Side** **Rear**	2' min 15' max 7' min 7' min		**Upper Stories** **Ground Floor**	15% min 60% min
		Small lot residential		Characterized by modest size structures with smaller back lot structures and small yards	• South Yarmouth/ Bass River • Chatham Old Village	Small Multifamily 4 – 6 units; Triplex; Side-by-side Duplex; Stacked duplex; Accessory Dwelling Unit	**Front** **Side** **Rear**	10' min 20' max 10' min 15' min		**Upper Stories** **Ground Floor**	
		Large lot residential		Characterized by large yards and wooded areas between buildings	• Spring Hill in Sandwich • West Falmouth • South Dennis	Triplex; Stacked duplex; Side-by-side Duplex; Accessory Dwelling Unit; Small Multifamily 4 – 6 units	**Front** **Side** **Rear**	15' min 50' max 20' min 20' min		**Upper Stories** **Ground Floor**	
	Suburban	Commercial		Areas with large linear buildings and parking areas	• Route 28 in Yarmouth • Route 134 in Dennis • Teaticket area of Route 28 in Falmouth	Corridor; Medium Multifamily 7 – 12 Units	**Front** **Side** **Rear**	15' min 30' max 10' min 10' min		**Upper Stories** **Ground Floor**	15% min 60% min
		Residential		Areas with small scale repetitive building forms and prominent yards	• Dennis area around Setucket Road • Pitcher's Way area in Barnstable	Triplex; Stacked duplex; Side-by-side Duplex; Accessory Dwelling Unit	**Front** **Side** **Rear**	15' min 50' max 20' min 20' min		**Upper Stories** **Ground Floor**	
	Rural	Wooded		Areas surrounded by wooded landscapes	• West Barnstable • Spring Hill area in Sandwich • Cape Cod National Seashore	Small Multifamily 4 – 6 units; Triplex; Side-by-side Duplex; Stacked duplex; Accessory Dwelling Unit	**Front** **Side** **Rear**	10' min 15' min 15' min		**Upper Stories** **Ground Floor**	
		Open		Areas surrounded by open fields or areas of low height vegetation such as heathlands/ grasslands or marshes	• Hatchville area in Falmouth • Cape Cod National Seashore	Triplex; Side-by-side Duplex; Stacked duplex; Accessory Dwelling Unit	**Front** **Side** **Rear**	15' min 20' min 20' min		**Upper Stories** **Ground Floor**	
	Maritime	Most dense		Characterized by shared building walls and zero setbacks	• Provincetown	Corridor; Medium Multifamily 7 – 12 Units; Townhouses 3 – 5 units	**Front** **Side** **Rear**	0' min 15' max 0' min 0' min		**Upper Stories** **Ground Floor**	15% min 60% min
		Moderate density		Characterized by space between structures and some suburban forms	• Hyannis • Woods Hole	Medium Multifamily 7 – 12 Units; Small Multifamily 4 – 6 units; Townhouses 3 – 5 units	**Front** **Side** **Rear**	7' min 15' max 7' min 7' min		**Upper Stories** **Ground Floor**	15% min 60% min
		Less dense		Characterized by front and side yards and a more residential feel	• West Falmouth • Shore Road area in Chatham	Small Multifamily 4 – 6 units; Triplex	**Front** **Side** **Rear**	10' min 30' max 15' min 15' min		**Upper Stories** **Ground Floor**	

March 2024