



# Truro Planning Board Agenda

## Remote Zoom Meeting

Wednesday, January 8, 2025 – 5:00 pm

[www.truro-ma.gov](http://www.truro-ma.gov)

**Join the meeting from your computer, tablet or smartphone:**

**<https://us02web.zoom.us/j/84103837429>**

**Dial in: +1-646-931-3860**

**Meeting ID: 841 0383 7429      Passcode: 669519**

### **Open Meeting**

This will be a remote public meeting. Citizens can view the meeting on Channel 8 in Truro and on the web: Town of Truro website ([www.truro-ma.gov](http://www.truro-ma.gov)), "Helpful Links", "Truro TV Channel 8". Click on the green "Watch" button in the upper right corner of the page. Please note that there may be a slight delay (approx. 15-30 seconds) between the meeting and the television broadcast/livestream.

Citizens can join the meeting to listen and provide public comment by entering the meeting link; clicking on the agenda's highlighted link; clicking on the meeting date in the Event Calendar; or by calling in toll free. Citizens will be muted upon entering the meeting until the public comment portion of the hearing. If you are joining the meeting while watching the television broadcast/livestream, please lower or mute the volume on your computer or television during public comment so that you may be heard clearly. Citizens may also provide comment via postal mail or by emailing Liz Sturdy, Planning Department Assistant, at [esturdy@truro-ma.gov](mailto:esturdy@truro-ma.gov), one week prior to the meeting; or may instead speak during the Public Comment portion of the hearing.

### **Public Comment Period**

The Commonwealth's Open Meeting Law limits any discussion by members of the Board of an issue raised to whether that issue should be placed on a future agenda. Speakers are limited to no more than 5 minutes.

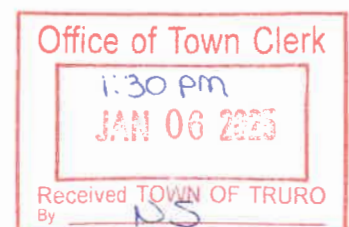
1. **Planner Report**
2. **Chair Report**

### **Board Discussion/Action**

- Lot Clearing
- Lot Coverage
- Climate Change
- Communications Towers
- Street Inventory List

**Next Meeting:**      Wednesday, January 22, 2025 at 5:00 pm OR February 5, 2025

### **Adjourn**



## LOT COVERAGE POTENTIAL BYLAW *working version*

(1/2/25)

### WHY

- To support Carbon Sequestration (*LCP p89*)- **the process of capturing and storing atmospheric carbon dioxide**. It is one method of reducing the amount of carbon dioxide in the atmosphere with the goal of reducing global climate change. . [Biologic carbon sequestration](#) refers to storage of atmospheric carbon in vegetation, soils, woody products, and aquatic environments. For example, by encouraging the growth of plants—particularly larger plants like trees—advocates of biologic sequestration hope to help remove CO2 from the atmosphere. (USGS)
- Protect and preserve the quality of our groundwater by decreasing runoff & thereby decreasing contamination of the aquifer. Developing townwide public water supply would be a huge expense for the community.
- Maintain wildlife habitat and encourage contiguous habitats across properties
- Preserve the “rural” character of Truro which supports the tourism industry that is a major component of Truro’s economy

### DEFINITIONS

- Truro’s current definition: Lot Coverage: The portion of a lot which is covered by impervious structures and improvements. Impervious structures and improvements shall include but not be limited to paved driveways and parking areas, principal and accessory structures, swimming pools and other on-site amenities which render any portion of the lot impervious.
- Naturalized green space – the minimum percentage of the lot that shall consist of *native species(do we keep this)* trees, bushes, underbrush, plants, grasses etc. that DO NOT require watering &/or fertilizing.

### New Bylaw XXX

This bylaw shall apply to the Residential District. Lots designated as Farms are exempt. To support the reasons listed above, this bylaw both limits the amount of Lot Coverage and places a minimum percentage of the lot that shall be “Naturalized Green Space.”

- The maximum Lot Coverage in the Residential District shall be 20%.
- The minimum Naturalized Green Space in the Residential District shall be 60%.

### QUESTIONS FOR JANUARY 8 MEETING

- Do we want to make any changes to percentages?
- Do we keep native species in definition of Naturalized Green Space?

## BACKGROUND INFORMATION

### Maximum Lot Coverage

- in Other Towns
  - 15% in Wellfleet &
  - 40% in Provincetown
- 4 PB member properties reported – Lot coverage ranged from 4% to 11%

### Minimum lot size is 33750 sq ft.

- 20% = 6,750 sq ft
- House size - 3,600 sq ft maximum livable space on a 33750 sq ft lot.
  - 10.667 % of minimum lot size on 1 floor
  - 5.334 % of minimum lot size on 2 floors

### Examples of impervious structures and improvements

- ADU – 900-1,000 sq ft
- garage
  - 1 car 600 sq. ft
  - 2 car 864 to 1296 sq ft
- Basketball Court - 94 x 50 = 4,700 sq ft
- Tennis Court - total area of recreational court including out of play 4,416 sq ft
- Swimming Pool 20 x 40 pool + 10 ft deck all around = 40 x 60 2,400 sq. ft
- Driveway, paved 20 x 60 1,200 sq ft.
- Patio 20 x 40 800 sq ft
- shed 20 x 20 = 400 sq ft

### Naturalized Green Space

- Only Provincetown includes anything like this concept and their minimum “green space” in the residential district is 30% which includes all green space
- Planning Board member lots: 75%, 89%, 75%, 92% of naturalized green space

## Truro Zoning Bylaws

### DRAFT - Communications Structures – Proposed changes to §40.5.B.3

1-3-25 Rev 2

#### Existing Language:

3. The communications structure, building or appurtenance shall be installed, maintained and operated in accordance with all applicable federal, state, county and local codes, standards and regulations ~~and shall be designed to withstand sustained winds and gusts of a category 5 hurricane.~~ If Federal Aviation Administration (FAA) or Federal Communications Commission (FCC) regulations are changed, then the owner or operator shall bring the structure, building and appurtenances into compliance with the new regulations within six (6) months of the effective date of such regulations or earlier if a more stringent compliance schedule is included in the regulation. Failure to comply with any new regulations shall be grounds for the removal of non-complying structures, buildings and appurtenances at the owner's expense.

#### Proposed Revised Language:

3. **All communications structures, buildings, towers and appurtenances** shall be installed, maintained and operated in accordance with all applicable federal, state, county and local codes, standards and regulations. **Tower structures shall be designed (if new) or inspected and rated (if existing) in accordance with the loading requirements of the Massachusetts State Building Code 780 CMR (latest edition) and the ANSI/TIA-222 Standard referenced therein.** If Federal Aviation Administration (FAA) or Federal Communications Commission (FCC) regulations are changed, then the owner or operator shall bring the structure, building, **tower** or appurtenance into compliance with the new regulations within six (6) months of the effective date of such regulations or earlier if a more stringent compliance schedule is included in the regulation. Failure to comply with any new regulations shall be grounds for the removal of non-complying structures, buildings **towers or** appurtenances at the owner's expense.
4. **An updated structural rating analysis stamped by a registered professional structural engineer licensed in the Commonwealth of Massachusetts shall be submitted when an existing tower or the equipment that it supports is modified in a manner that results in increased loads on the tower. The structural rating analysis shall be predicated on an on-site condition assessment no more than five (5) years old, conducted in accordance with TIA-222. The Risk Factor (or Structure Class) used for design or rating of communications towers shall be subject to review and approval by the Truro Planning Board but shall not be less than the following:**
  - a. **For the existing tower at 344 Route 6 and for towers supporting emergency communications services: Risk Factor / Structure Class: III.**
  - b. **For all other communications towers: Risk Factor / Structure Class: II.**

(Keep and renumber subsequent paragraphs of Section 40.5.B.)

### Commentary on the proposed changes:

The reference in the current zoning bylaw to “...*a category 5 hurricane*...” refers to the Saffir-Simpson scale, which is intended to classify a storm’s potential to cause damage as related to a given 60-second sustained wind **velocity** measured 10 meters above the ground. The Saffir-Simpson scale does not provide a basis for determining wind **loads** and **loading combinations** on structures as a function of wind velocity. The State Building Code **does** provide a method for determining both wind speeds and wind loads. This proposed rewrite, per paragraph 3 above, is the crux of this bylaw revision.

The standards referenced in the Massachusetts State Building Code (780 CMR) are periodically updated, as is 780 CMR itself. The Tenth Edition of the State Building Code was adopted on October 11, 2024, however the Ninth edition remains valid and accepted until June 30, 2025.

The Ninth Edition of 780 CMR is based in part upon the 2015 *International Building Code* (IBC). With regard to structural loads on communication towers, IBC 2015 references ASCE 7-10 *Minimum Design Loads for Buildings and Other Structures* and TIA-222-G, which is a standard specific to the telecommunications industry. These standards provide a means of determining wind velocity and thence site specific design wind loads. The load combinations and factors applied by TIA-222 adapt the wind loads of ASCE 7-10 to the specific conditions associated with communications towers.

The Tenth Edition of 780 CMR references the following updated standards: IBC 2021, ASCE 7-16 and TIA-222-H.

Requiring compliance with 780 CMR incorporates IBC, ASCE-7 and TIA-222 by reference. However, because TIA-222 contains specific information relating to communications towers, I believe a direct reference to that document is appropriate for the purposes of this bylaw. Note that all of the communications tower analyses submitted to the Planning Board in the past three years have specifically (and correctly) referenced TIA-222 in their submissions.

Requiring compliance with 780 CMR in this manner means that periodic future updates to the State Building Code will become applicable without any need for Truro to repeatedly update the reference standards in this zoning bylaw. While it is not unusual for either the municipality or the applicant to request the applicant use a more recently released version of a standard, the above draft only requires compliance with the current version of 780 CMR.

With regard to the optional paragraph 4 above: TIA-222 uses a factor called “Structure Class” for the analysis of each specific structure, depending on the importance of the supported communication services and the hazard that the structure represents to its surroundings. A higher value of “Structure Class” in TIA-222 would be appropriate for a tower that supports essential or emergency services, for a tower whose service coverage area is not redundant with another tower, or for a tower whose fall zone includes critical infrastructure. This paragraph 4 is optional, but it is intended to codify what has been the Planning Board’s recent practice.

The communications tower at the Truro Transfer Station supports only commercial cell phone services that are not commonly considered to be essential or emergency services. However, Truro officials have noted that the commercial cell phone services, where they are available, are typically the first and often the only line of communication between people on Truro’s oceanside beaches and the Town’s public safety services. In view of that situation, Town officials have discussed the need to improve, ensure and protect cell phone service along the outer coast as a means of improving public safety. However, for this proposed bylaw this draft maintains the Risk Factor for the tower at the Transfer Station tower at II.

The consequence of using a higher "Risk Factor / Structure Class" rating for a particular tower installation is a longer design storm mean recurrence interval, which translates into a higher design wind velocity and therefore higher wind loads on the tower and its equipment. For example, here in Truro the design wind pressures for a Structure Class rating of III are approximately 114% of the wind pressures associated with a Structure Class of II. For a tower of a given structural capacity, this increase in the Risk Factor would effectively result in a reduction on the amount of equipment that can be mounted to the tower, thereby providing increased resiliency.

>>>>>

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