Infrastructure Agreements and Permissions

Getting your repeater or backbone node onto high-elevation infrastructure dramatically improves coverage - but it requires agreements with property owners. (High-elevation, line-of-sight siting is core Meshtastic guidance; see the Meshtastic siting tips.)

Types of Infrastructure Sites

The best sites for backbone nodes (roughly in order of typical access difficulty):

1. **Your own property** - On property you own you generally need no third-party agreement, but it is not automatically unrestricted: check HOA covenants, local zoning/permit rules for antenna masts, and (if you rent, or for a friend's house) the applicable lease. Start here: your house, or a friend's house with a tall tree or roof peak.
2. **Amateur radio repeater sites** - Existing ham radio clubs often have hilltop sites with tower space, power, and sometimes internet. Approach club leadership to discuss hosting. Note: default Meshtastic runs in the license-free 902-928 MHz ISM band (Part 15), where there is no ham frequency coordination and encryption is allowed. Formal ham-frequency coordination only applies if you operate in HAM mode under Part 97 (licensed, and encryption is not permitted) - clarify which regime applies before discussing "frequency coordination."
3. **Commercial buildings** - Restaurants, shops with flat roofs. Pitch: "We're a community communications nonprofit. We'd like to install a small weatherproof box the size of a paperback book on your rooftop. No wiring to your building, runs on its own battery/solar." Expect the owner to ask for proof of commercial liability insurance naming them as additional insured (see Insurance Considerations below).
4. **Municipal property** - Parks department, public works, and fire departments sometimes allow installations for emergency-preparedness benefit, but expect a formal license/use agreement requiring proof of commercial liability insurance (municipality named as additional insured), an indemnification clause, and sometimes risk-management or council approval - not just an informal MOU. Highly jurisdiction-dependent.
5. **Water towers** - Managed by municipal water utilities, and among the highest-liability, hardest-to-permit sites. Utilities universally require commercial general liability insurance naming the utility as additional insured, a formal site/license agreement, and often background checks and trained climbers, because access involves fall hazards and

potable-water security. Do not treat a water tower as an informal site.

6. **Cell towers** - Carrier-grade macro tower and managed-rooftop colocation typically runs $1,000-$3,000+/month (urban higher); small-cell sites run roughly $100-$250/month. More importantly, many tower operators will not lease space for a device this small at any price - treat commercial tower colocation as a last resort. Amateur-radio repeater sites and municipal buildings are far more accessible.

What to Include in a Site Agreement

Even for informal arrangements, a simple one-page written agreement protects both parties:

- Description of the hardware (size, weight, power source)
- Exact mounting location
- Duration (1 year renewable, or at-will with 30-day notice)
- Your responsibility for maintenance and removal
- Liability and insurance - the operator/nonprofit carries Commercial General Liability insurance and will name the property owner as additional insured on request (specify coverage limits). Note: a written agreement does not by itself transfer liability for structural/roof damage or injury during access; adequate insurance does.
- Contact information for both parties

Insurance Considerations

Most institutional partners will ask whether you carry liability insurance. Coverage scope varies - confirm specifics with a licensed agent before relying on any policy. Options:

- **ARRL Affiliated-Club Liability Insurance** - ARRL does *not* provide individual members with liability insurance. ARRL administers a separately-purchased Club Liability Insurance Program (up to ~$2,000,000/year aggregate) for ARRL-Affiliated amateur radio clubs - the club buys and pays for the policy (roughly $200/year). It is not an automatic individual-membership benefit and does not cover a personal repeater site. An individual host or operator needs their own Commercial General Liability coverage; confirm scope at arrlinsurance.com.
- **Nonprofit general liability (CGL) policy** - The primary coverage most hosts will ask for. If you've formed a 501(c)(3), small-org premiums vary, commonly a few hundred to low thousands of dollars per year (industry average ~$500/year per Insureon, 2026), depending on limits, activity, and whether additional-insured endorsements are needed. Get a quote rather than budgeting from a rule of thumb. (An "umbrella" policy is separate

excess coverage layered on top of CGL, not the primary policy itself.)
- **Personal homeowner/renter's policy** - Generally does *not* cover a transmitter you install and operate on a third party's commercial, municipal, or utility property, and cannot add the owner as an additional insured (which water towers and municipalities require). Such policies cover your own residence and personal liability and routinely exclude business pursuits and hosted third-party equipment. For installations on someone else's property you need a Commercial General Liability (CGL) policy - typically held by the nonprofit - that can name the site owner as additional insured.

Maintaining Relationships with Site Hosts

- Annual "thank you" message or card
- Invite them to community events
- Update them when you add features or upgrade hardware
- Be responsive if they ever have concerns - a 24-hour response time builds trust
- Proactively reach out before any work at the site; never surprise a host

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