

Delta County Solar Ordinance

- A. Solar Energy Systems (SES) intended to serve a single residential unit, multi-residential unit, or small business. SES occupies no more than one (1) acre of land or roof surface. Height, setback, and noise requirements applicable to the above zoning districts.

Allowed in all districts: R-1, R-2, R-3, R-4, C-1, C-2, C-3, I, OS, PL, RP, AP, RR, LS/R, LS/R-2, TD
 Permitted: Exempt

- B. Solar Energy Systems (SES) which occupy more than one (1) acre of land or roof surface, compatible with net metering through existing electrical lines or onsite energy storage where energy collected is not for sale. Height, setback, and noise requirements applicable to the zoning districts.

Allowed in the following districts: C-1, C-2, C-3, I, PL, RP, AP, TD
 Permitted: Accessory Use (designed primarily to serve the needs of a home, farm, or small business)

- C. Utility-Scale Solar Energy Systems intended to supply energy to be sold. Installations rely on existing energy distribution infrastructure. Multiple projects owned or leased by an individual, company, agency, or municipality sited on proximate land are considered one project, submitted as a single site plan. Allowed in brownfield land and capped or abandoned landfills.

Allowed in the following districts: C-1, C-2, C-3, I, RP, AP
 Permitted: Conditional Use with the following requirements:

Requirements:

- a. Solar panels shall be setback a minimum of thirty (30') from all existing property lines. From non-participating properties solar panels must be located at least seventy-five feet (75') from the property boundary and one hundred twenty-five feet (125') along the profile of any non-participating landowner dwelling unit. An SES is not subject to property line setbacks for common property lines of two or more participating lots, except road right-of-way setbacks shall apply. Solar panels and other structures along the Lake Michigan shoreline, rivers, streams, and/or inland lakes will meet the requirements of the underlying zoning district.
- b. The maximum height for a solar panel shall be thirty (30') feet oriented at maximum tilt. The maximum height of a switching station shall not exceed the minimum height needed to tie into electrical transmission lines. The height of all other buildings and accessory structures shall comply with the maximum building height requirements of the applicable zoning district in which the SES is located. The height of lightning rods shall be limited to the height necessary to protect the switching station and shall not be lighted.
- c. Lighting shall be limited to the minimum necessary, directed downward, and set with motion-sensors. No lighting will extend beyond the perimeter of the SES.
- d. No SES shall produce glare that would constitute a nuisance to occupants of neighboring properties or to persons traveling public roads.
- e. Commercially reasonable screening shall be installed at the applicant's expense to provide screening along the profile of any non-participating primary dwelling. Earthen berms are discouraged due to the destructive nature of stripping nearby land of topsoil and increased potential for erosion.
- f. All fencing will meet National Electrical Code requirements and be maintained through the life of the project.
- g. Revegetation for means of controlling runoff and erosion required. Vegetation will consist of regionally appropriate shrubs, grasses, sedges, and/or flowers. All earthwork and stabilization methods will be compliant with state law and regulations set forth in statute under Part 91, SESC.

- h. No SES shall produce noise that exceeds fifty-five (55) dBA, as measured at any neighboring property line.
- i. Any development that may impact groundwater will be compliant with all EGLE and Health Department regulations.
- j. Any development will avoid and minimize negative impacts on wildlife, including overflight migrating birds and riparian zones, and provide on-going monitoring if negative impacts to wildlife are identified. Post-construction monitoring will determine ongoing impacts to wildlife, with emphasis on migratory birds. Study results shall be made available to the public.
- k. Livestock grazing within a fenced SES is permitted, subject to requirements of the applicable underlying zoning district as it relates to livestock.
- l. No solar panels or associated equipment or buildings shall be used for advertising.
- m. Provide a project summary for site plan review that contains the size, rated power output, performance, safety, and characteristics of the system. Identify timelines, project life, development phases, likely market for the generated energy, and possible future expansions. Provide the name and contact information of the certified operator, inspection protocol, emergency proceedings, and general safety (including fire safety) documentation.
- n. Repowering: In addition to repairing or replacing SES components to maintain the system, an SES may at any time be repowered, without the need to apply for a new **conditional** use permit, by reconfiguring, renovating, or replacing the SES to increase the power rating within the existing project footprint. A proposal to change the project footprint of an existing SES shall be considered a new application.
- o. Decommissioning requirements:
 - 1. The anticipated life of the project.
 - 2. The estimated decommissioning costs based on:
 - i. Ground preparation activities in order to access the site and provide room for disassembly.
 - ii. Dismantling of the project components which include fencing, solar panels, racking, operating components, electrical connections, concrete foundations, **underground cabling less than four (4') feet below ground**, overhead cabling, and electrical substation or switching equipment.
 - iii. Traffic control issues necessary to create egress of components to the disposal points must be considered.
 - iv. Site reclamation includes the removal and disposal of contaminated soils. The materials for remediation of the site to match the surrounding land use and form.
 - 3. The method of ensuring that funds will be available for decommissioning shall be one or more of the following:
 - i. A surety bond equal to the estimated costs in favor of Delta County.
 - ii. Cash equal to the estimate costs payable to Delta County.
 - iii. An escrow plan approved by the **Board of Commissioners** to be paid over time to Delta County or to an escrow agent acceptable to Delta County. An escrow account may be converted to a surety bond at any time, by the applicant.

Definitions

Solar Energy System (SES): A system consisting of a device or combination of devices, structures, or parts thereof, that collect, transfer, or transform solar radiant energy into thermal, chemical, or electrical energy, excluding systems that substantially rely on mirrors or similar technologies to focus solar radiant energy onto a considerably smaller area.

Solar Collection Panels: Panels (including bifacial panels), tiles, or thin membranes comprised of semiconductor devices and typically referred to as photovoltaic cells, which collect solar energy that is converted into electricity.

Bifacial Panels: Solar collection panels that collect solar energy from both the top side and the underside of the panel.

Racking: Also called photovoltaic mounting systems, a solar racking system is used to safely fix solar panels to various surfaces such as roofs, building facades, or the ground.

Ground-mounted: Solar collection panels that are mounted to the ground by a pole or poles or a frame (metal, wood, or other similar material).

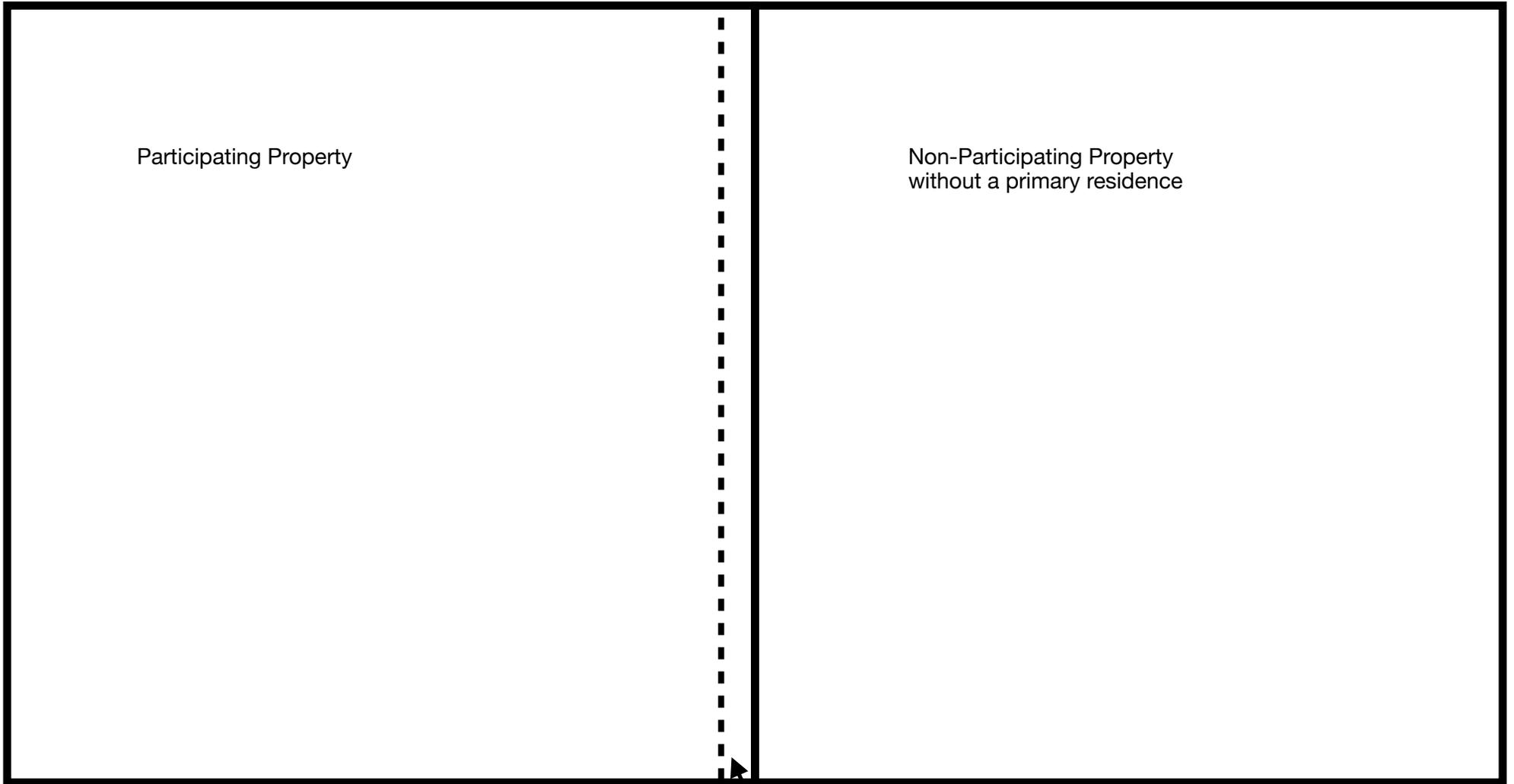
Glare: The unwanted reflection of the sun's rays by the face of a reflective surface.

Roof-mounted: Solar collection panels that are mounted on the roof by a frame.

Energy Storage: The capture of energy produced at one time for use later to reduce imbalances between energy demand and energy production. A device that stores energy is generally called an accumulator or a battery.

Net Metering: a system in which solar panels or other renewable energy generators are connected to a public-utility power grid and surplus power is transferred onto the grid, allowing customers to offset the cost of power drawn from the utility.

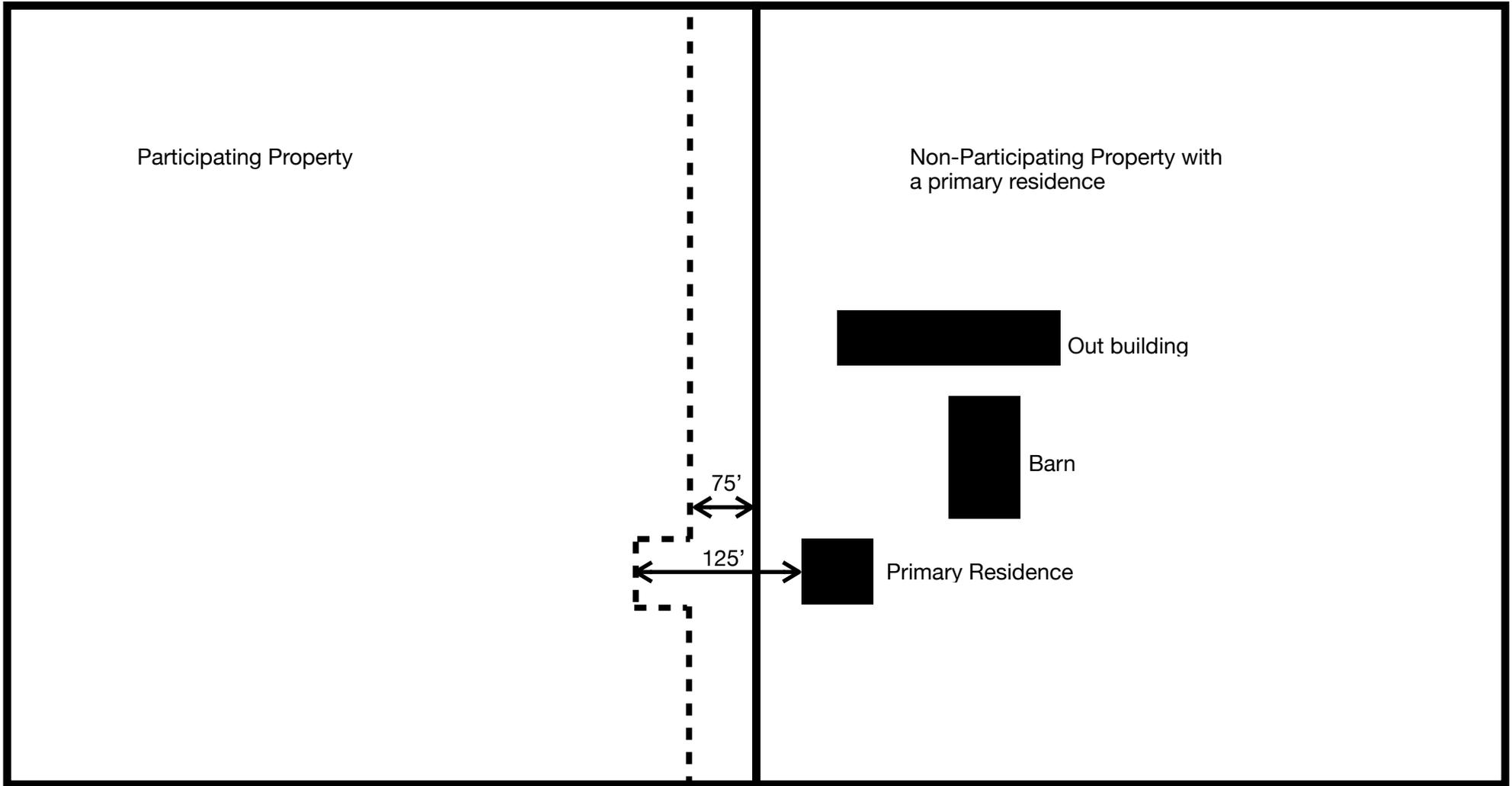
Micro-Grid: Micro-grids serve local energy sources where power transmission and distribution from a major centralized energy source is too far and costly to execute. They offer an option for rural electrification in remote areas and on smaller geographical islands. As a controllable entity, a micro-grid can effectively integrate various sources of distributed generation through renewable energy sources.

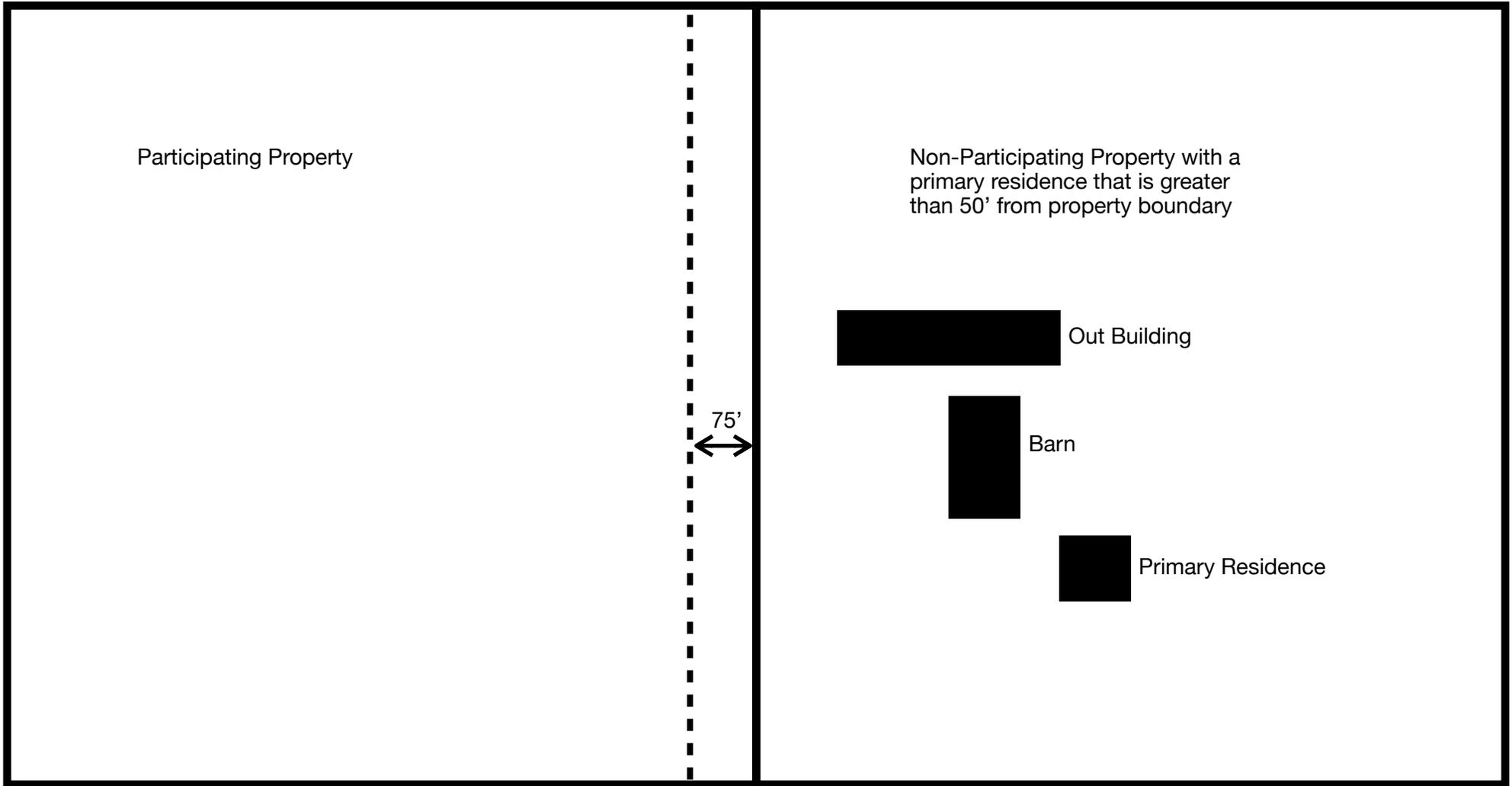


Participating Property

Non-Participating Property
without a primary residence

30' setback





Participating Property

Non-Participating Property with a primary residence that is greater than 50' from property boundary

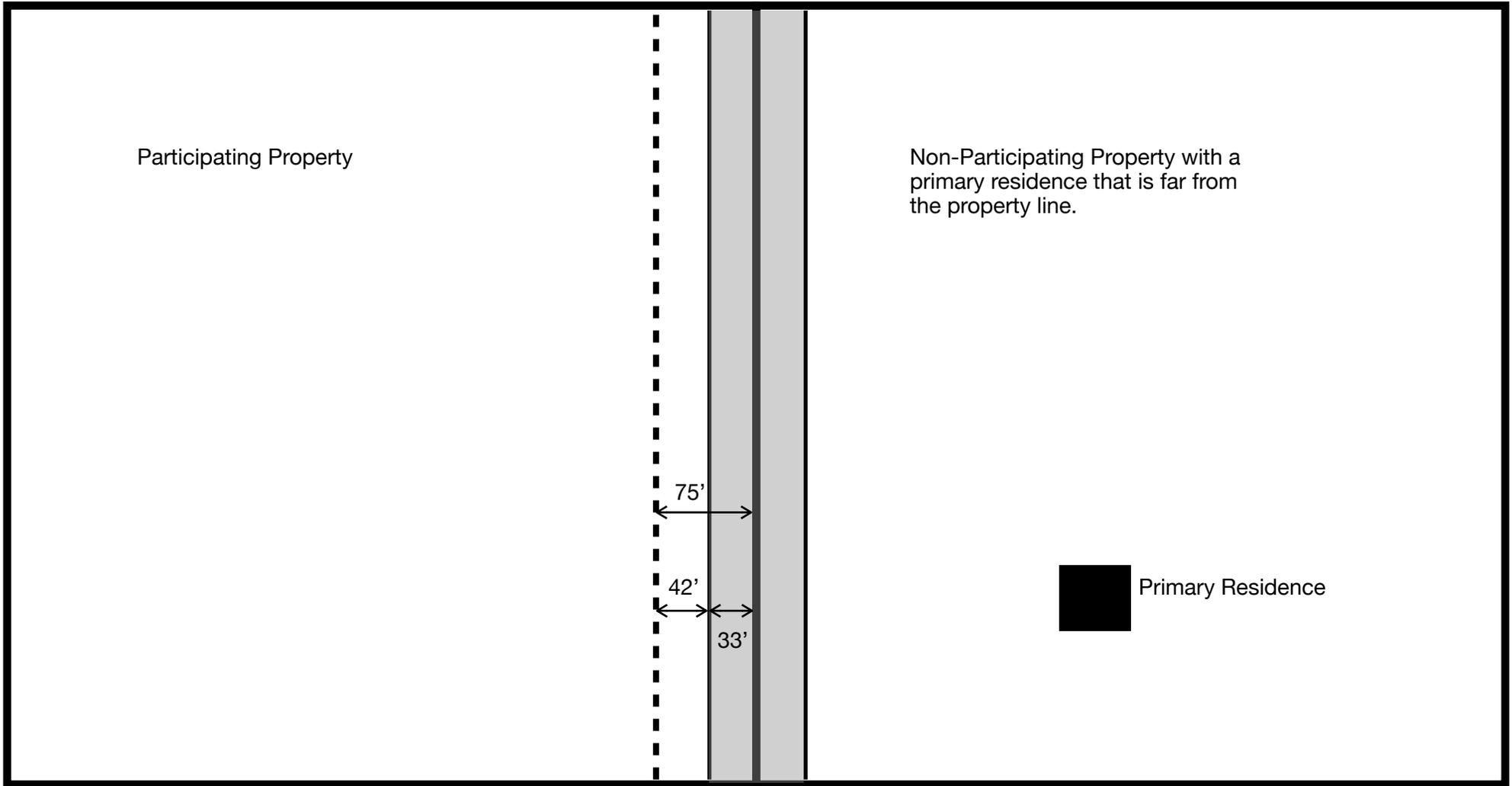
Out Building

Barn

Primary Residence

75'

county road divides parcels



Participating Property

Non-Participating Property with a primary residence that is far from the property line.



Primary Residence

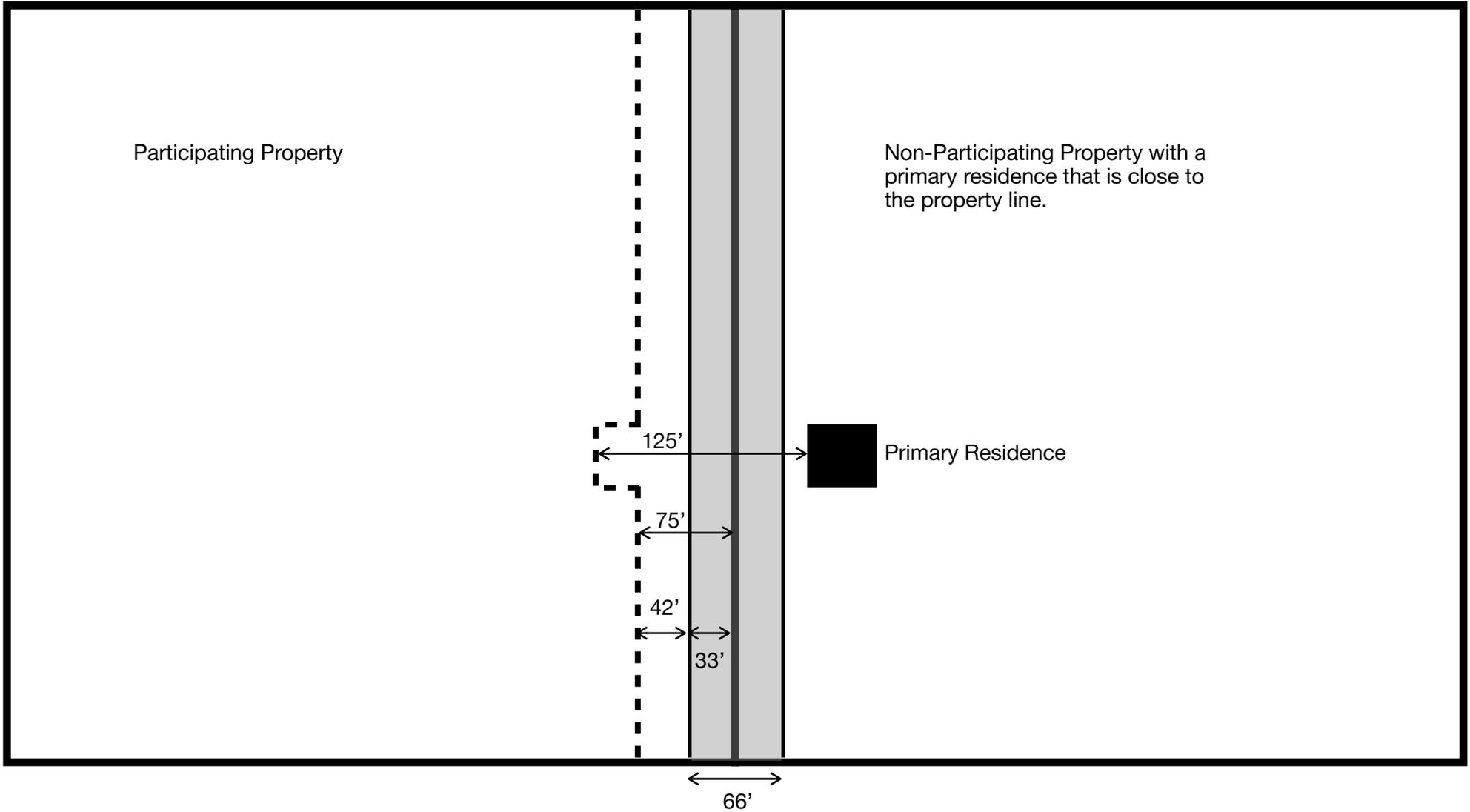
75'

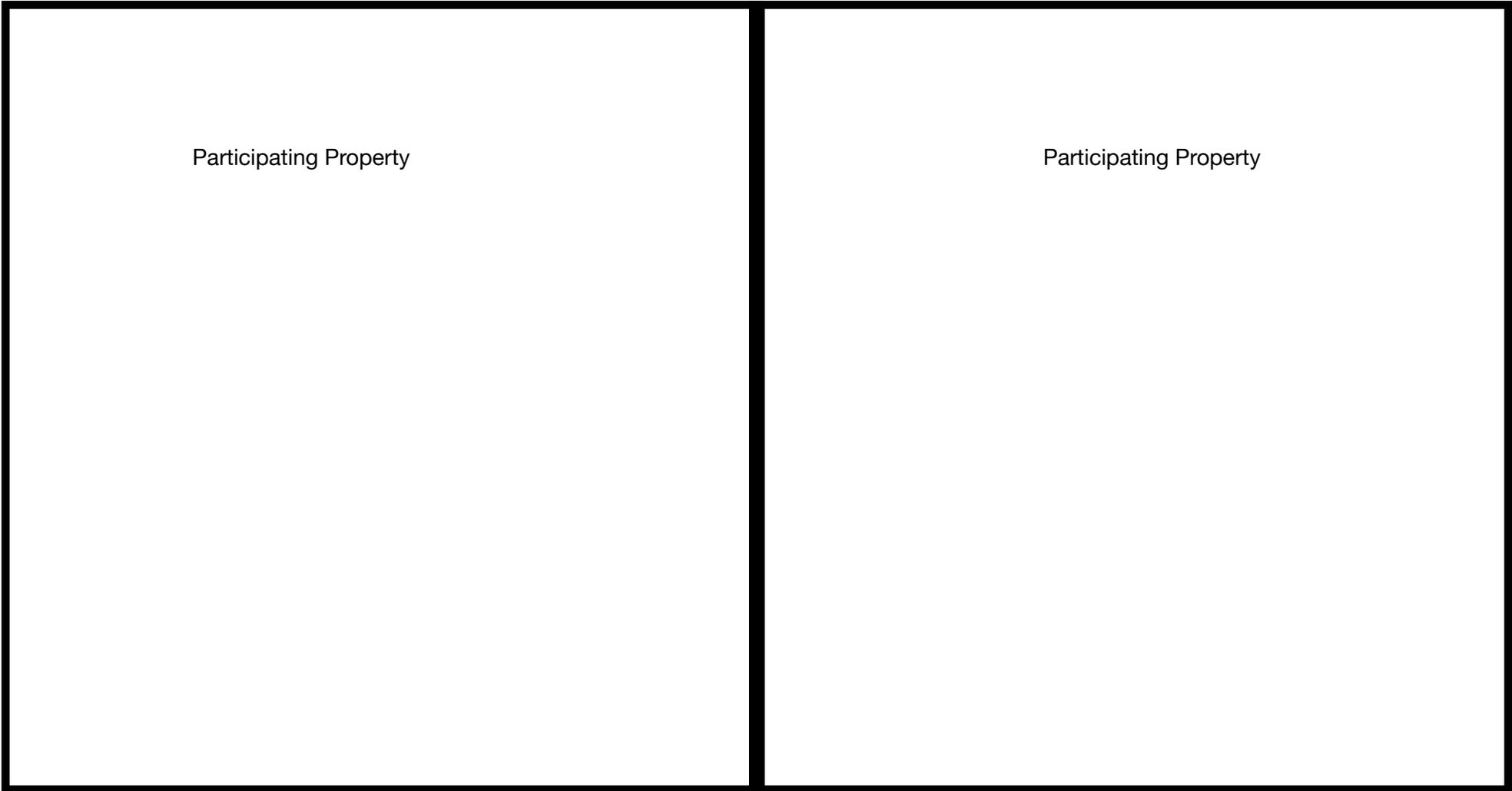
42'

33'

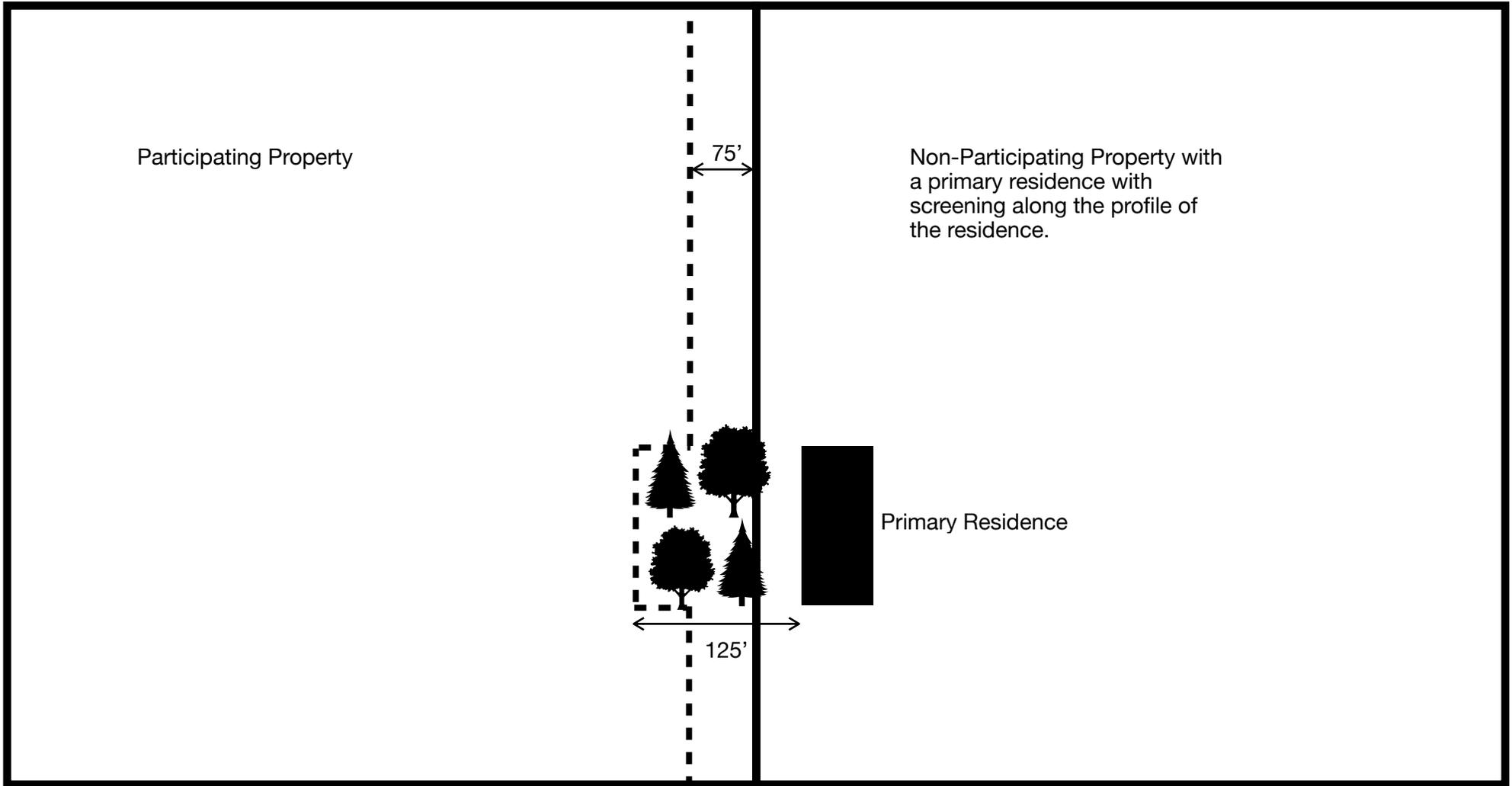
66'

county road divides properties





No setbacks required - properties can be owned by the same person(s)/entities or owned by different people/entities.



Participating Property

Non-Participating Property with
a primary residence with
screening along the profile of
the residence.

Primary Residence