

## SECTION IV DESIGN STANDARDS

### 41 General

411 Design Guides. The subdivision shall be designed consistent with these standards, and with the guidelines of Appendix A. The subdivision shall conform, insofar as practical, to any elements in a town development policy which the Planning Board may adopt, provided that such elements are given public hearing in the same manner as prescribed for amendments to subdivision regulations, and made available along with copies of the subdivision regulations.

412 Cross Section. Grading, location of pavements, utilities, and other improvements shall be designed and located as indicated on the Typical Street Cross Section (see Appendix).

### 42 Streets and Paths.

#### 421 Location and Alignment

All streets and paths in the subdivision shall be designed so that, in the opinion of the Board, they will provide safe pedestrian and vehicular travel. Due consideration shall also be given by the subdivider to the consequences of the street layout upon the livability, amenity, and environmental impact of the subdivision.

Provision satisfactory to the Board shall be made for the proper projection of streets and paths, or for access to adjoining property which is not yet subdivided.

Reserve strips prohibiting access to streets or adjoining property shall not be permitted, except where, in the opinion of the Board, such strips are in the public interest.

Street jogs with centerline offsets of less than 150 feet should be avoided.

Street configuration shall be designed, together with reserved open space, to minimize the number of lots having frontage exclusively on collector streets.

The minimum centerline radii of curved streets shall be not less than the following:

Lane – 60 feet

Minor Streets – 100 feet

Collector Streets – 300 feet

Streets shall be laid out so as to intersect as nearly as possible at right angles. No street shall intersect any other street at less than 60 degrees.

Any group of 20 or more lots shall provide for two means of egress.

Property lines at street intersections shall be rounded or cut back to provide for radius at the edge of traveled way of not less than 30 feet at intersections with a collector street and 20 feet for intersections involving only minor streets or lanes.

Street intersections on arterial streets (major intertown streets) shall be spaced not less than 400 feet apart.

There shall be vehicular access to each lot via routes no part of which shall be less than ten feet above Mean Sea Level.

Paths connecting existing trails and paths should be preserved or created wherever reasonable, not necessarily following the streets, and should be developed in other locations where indicated by traffic, access to public or recreational facilities, or other reasons.

#### 422 Width

The minimum width of street rights-of-way shall equal the width of the traveled way plus 18 feet. Greater width shall be required by the Board when deemed necessary for present and future utilities or their appurtenances.

The minimum width of rights-of-way for off-street paths shall be eight feet.

#### 423 Grade

Grades of streets shall be not less than 0.5%. Except for short intervals, grades shall be not more than 6.0% for collector streets, 10% for minor streets, and 12% for lanes.

On any street where the grade exceeds six percent on the approach to an intersection, a leveling area with a slope of not more than four percent shall be provided for a distance of not less than 50 feet measured from the nearest exterior line of the intersecting street.

Vertical curves are required whenever the algebraic difference in grade between centerline tangents is 2.0% or more.

Street centerline profile shall at no point be less than three feet above the grade of adjacent wetlands or marsh.

424 Sight Distances. Forward stopping sight distances shall be not less than 100 feet on lanes, 150 feet on minor streets, or 300 feet on collector streets.

#### 425 Dead-End Streets

Dead-end streets shall not normally be allowed except for lanes, unless, in the opinion of the Board, they are necessitated by topography or other local conditions.

Dead-end streets shall be provided at the closed end with either a turn-around having an outside roadway diameter of at least 80 feet, and a property line diameter of at least 100 feet, or an alternative configuration accommodating the turning of a vehicle with 30 foot wheelbase

#### 43 Easements

431 Easements for utilities across lots or centered on rear or side lot lines shall be provided where necessary, and shall be at least 20 feet wide, unless a smaller width is determined by the Board to be adequate for the purpose.

Where a subdivision is traversed by a water course, drainage way, channel or stream, the Board may require that there be provided a storm water or drainage easement of a minimum width of twenty feet to conform substantially to the lines of such water course, drainage way, channel or stream, and to provide for construction or other necessary purposes.

Drainage easements outside of the area of the subdivision, but occasioned by it, may be required to the subdivider.

Slope easements shall be provided where cut or fill slopes cannot be contained within the street right-of-way.

#### 44 Storm Water Management

Storm drainage, culverts, and related facilities shall be designed to permit the unimpeded flow of all natural water courses, to ensure adequate drainage of all low points along streets, to control erosion, and to intercept storm water run-off along streets at intervals reasonably related to the extent and grade of the area drained. To the maximum extent feasible, storm water shall be recharged rather than piped to surface water, and peak stream flows at the boundaries of the development shall be no higher following development than prior to development.

Storm sewers, retention basins, and leaching basins shall be based on a 20 year frequency storm, and culverts shall be based on a 50 year frequency storm and on coastal flooding to ten feet elevation (MSL). Design shall employ tide gates, backflow valves, or other devices as necessary, to avoid damage from reverse circulation of flood waters.

Design shall be based upon either the Rational Method or Manning Formula. Water velocities shall be between 2 and 10 feet per second. The coefficient of run-off used shall be not less than 0.45 for subdivided areas. All developable land tributary to facilities being designed shall be assumed to be subdivided. Leaching basins or catchbasin to manhole system of drainage is required, with no storm sewers of less than 12-inch inside diameter, and with catchbasins at all low points and sags, near the corners of the roadway at intersecting streets, and at intervals of not more than 350 feet on continuous grades. Where used, leaching basins shall be cross-connected. The Board may require test borings at leaching basin locations where percolation is in doubt.

#### 45 Water Supply

Provisions shall be made for water supply to each lot and for fire protection and sewage disposal. When available, the water supply shall be from a public water system, in which event the system design shall be as specified by the Tisbury Water Works, evidenced by certification from the Commissioners that they approve the design and will permit connection.

Where connection to the public system is not feasible, a subdivision plan shall be approved only upon presentation of evidence satisfactory to the Board, upon advice of the Board of Health, that adequate and suitable ground water is available for domestic use, and upon presentation of evidence satisfactory to the Board, upon advice of the Fire Chief, that adequate and suitable provisions for fire fighting have been made.

All water and sewage disposal systems shall be so designed as to neither be impaired nor contribute to contamination in the event of flooding to 10 feet elevation (Mean Sea Level).

#### 46 Other Requirements

461 Open Spaces. Before approval of a plan the Board may require that an area be reserved for a possible park or parks, and by appropriate endorsement on the plan require that no building be erected upon such reserved area for a period of three years without the Board's approval. Such reservation shall be made where particular natural features, abutting public land, or the potential neighborhood need for recreation space make later public acquisition appear desirable, but in no

event shall required reserved areas exceed 5% of the total area of the subdivision, unless so required by zoning or other regulations.

462 Protection of Natural Features. Due regard shall be shown for all natural features, such as large trees, water courses, scenic points, historic spots and similar community assets, which, if preserved will add attractiveness and value to the subdivision.

463 Written Approvals. No Definitive Plan will be approved unless the developer submits written certification of approval of the design by all utilities, which are to provide services within the subdivision.

464 Underground Wiring. All wiring, cables, and other appurtenances of electric power, telephone and fire alarm systems shall be placed underground within the limits of the street right-of-way, except where such underground installation would, in the judgement of the Planning Board, cause undue hardship by reason of topography, subsoil conditions, or other site peculiarities, or by reason of the existing development pattern. Electric power cables shall be not less than 30" below finish grade.