

SECTION 4

GENERAL REQUIREMENTS

4A. GENERAL. Proposed subdivisions and all street, drainage and other improvements shall be designed and constructed in accordance with the Town Development Plan and the zoning regulations; any other official plans and applicable laws, ordinances, codes and regulations; and the standards and specifications hereinafter specified.

4B. BUILDING LOTS. Proposed building lots shall be of such size, shape, location, topography and character that buildings can be reasonably constructed, occupied and used for building purposes without danger to the health and safety of the occupants and the public. Land of such character in its natural state that it is unsuitable for occupancy or building purposes because of danger to the public health, safety and welfare by reason of inaccessibility, difficult configuration, high ground water, folding conditions, erosion hazards, ledge rock, steep sloping topography, severe soil conditions, or other similar conditions may be appropriately identified as a "Protection Area" on the Final Subdivision Plan; and, if so shall not be subdivided for residential use nor for such other uses as may increase danger to health, life, or property or otherwise aggravate the hazard; unless and until appropriate corrective measures have been taken by the subdivider to eliminate such hazards. Proposed building lots shall be designed and arranged to make best use of the natural terrain, avoiding unnecessary regrading, to protect the natural environment, and to preserve the natural amenities such as waterbodies, watercourses, and vegetation.

4B.1. LOT LAYOUT AND DRIVEWAY ACCESS. Except where impractical or unreasonable, lots shall be so laid out that the driveways have access to a Local or Collector street and not to a Arterial road carrying general traffic.

4B.2. LOT AREA TO PERMIT UTILITY FACILITIES. Each lot proposed to be served by a private, individual water-well and/or a private, individual sewage disposal system shall be large enough to contain sufficient land of proper character to permit satisfactory performance of such well and/or sewage system, and shall comply with all applicable regulations.

4B.3. LOT MARKERS. All lots shall be clearly defined by iron or steel stakes at least three-quarters inch in diameter and thirty inches in length and placed in the ground to existing grade, or by a suitable dial adequately imbedded in ledge-rock, or by other appropriate means subject to approval by the Commission. Until the accurate placement and location of such lot markers shall be certified by the developer's surveyor no certificate of occupancy shall be issued.

4B.4. ZONING COMPLIANCE. Each lot shall comply with the minimum requirements of the zoning regulations for the zoning district in which it is located. The Commission may require larger lots than required by the zoning regulations where it deems necessary because of conditions affecting drainage, sanitary sewage disposal or water supply.

4B.5. MINIMUM RECTANGLE. All lots in a subdivision shall be of such shape that a square equal to the "minimum lot width" on each side can be placed within the boundary lines of the lot. The "minimum lot width" is as tabulated in the zoning regulations for the district within which the lot falls.

4B.6. REAR LOTS. Approved lots shall front on an accepted Town road, or a road in an approved subdivision except the Planning Commission may permit rear lots in Residential Districts; subject to the following conditions and safeguards:

4C. PRIVATE ON-SITE SEWAGE DISPOSAL SYSTEMS. All lots shall be capable of properly disposing of on-site sewage in accordance with applicable state and local codes.

4C.1. AREA OF SPECIAL CONCERN. Where the test holes reveal that the area will require special consideration a written procedure and/or plan for sewage disposal, prepared by a qualified engineer and approved by the Director of Health, or his representative, shall be submitted. The Commission may approve as part of the subdivision only those lots which have been certified by the Director of Health.

4D. OTHER UTILITIES. The Commission may require the developer to provide adequate water, gas, and electric services to and/or in the proposed subdivision in appropriate instances.

4D.1. GENERAL DESIGN. All water, gas, and electric systems or facilities shall be designed and constructed in accordance with the accepted standards and pertinent specifications of the State and Town Health and/or Sanitary Codes, State Public Utility Commission Regulations, and the local utility companies.

4D.2. PUBLIC WATER SUPPLY CONNECTIONS. The Commission may require public water supply connections and/or extensions to be made available to each lot in any subdivision which is either:

- A. Located within an area currently served by an existing public water supply system; or
- B. Located within such a reasonable distance of an

existing public water supply system as to make extension thereof feasible.

4D.3. PRIVATE, INDIVIDUAL, ON-SITE WATER SUPPLY SYSTEMS. All water wells and other individual water supply systems, or parts thereof, shall be constructed in accordance with the specifications and designs approved by the Director of Health.

4D.4. UNDERGROUND UTILITIES. The Planning Commission may require the underground installation of any telephone, electric, or power utility system, or portion, thereof, intended to serve any proposed subdivision, if it is deemed desirable, in the judgment of the Commission, and if such installation is determined, by or to the satisfaction of the Commission, to be feasible.

4E. UTILITY EASEMENTS. The Planning Commission may require the subdivider to provide perpetual unobstructed easements for such utility system, facility, or portion thereof, which it deems necessary to protect the public health, safety and general welfare and to adequately serve any other land that adjoins the proposed subdivision.

4E.1. Easements shall be provided by the subdivider for the full width and length of any watercourse or open drainage ditch within the subdivision which will carry drainage runoff from said subdivision and/or from any other lands situated within the watershed.

4E.2. In general, such easements shall be centered on or adjacent to rear or side lot lines, shall have a minimum width of 20 feet and shall provide satisfactory access to any connecting street.

4F. OPEN SPACE DEDICATION. The Commission may require such open spaces for parks, playgrounds, or other public uses as it may deem proper. Each area reserved for such purposes shall be of suitable area, dimensions, topography and natural character for the purposes of a park, playground, or other public use, at the discretion of the Commission. The Commission may require that the area or areas so reserved shall be located and laid out so as to be used in conjunction with similar areas of adjoining subdivisions or of probable future subdivisions. The total amount of area to be reserved, as determined by the Commission, for parks, playgrounds, or other public uses shall be not more than ten (10) percent of the gross area of the subdivision. Any land so reserved shall be graded to properly dispose of surface water unless specifically designed to hold impounded water, all brush and debris shall be removed, open areas shall be seeded and the land shall be left in condition for the purpose intended, as required by the Commission.

In some instances the Commission may require that the area is to be left wild. The Commission may require the filing of a written agreement between the subdivider and the Commission covering future title, time of transfer, dedication, and provision for the cost of grading, development, equipment, and maintenance of any such area. All open spaces or parks or playgrounds shall be shown on the subdivision plan.

4F.1. Methods of Open Space Reservations. The land area not allocated to building lots, and streets shall be permanently reserved as open space by means acceptable to and approved by the Commission, such as, but not limited to:

4F.1. (A) Deeded to the Town of Middlefield. Where open space areas are to be conveyed to the Town, the applicant shall convey them at the stage and in the condition agreed upon in connection with processing and approval of the subdivision. Title to the land shall be unencumbered. The Town shall take title to such land at a time approved by the Commission and Town Meeting, in any case not later than the time at which title to the streets in said subdivision is accepted by the Town. Acceptance of an open space area, when conveyed by the applicant, shall be endorsed upon the deed by the Chairman or Secretary of the Commission and shall be recorded, which deed shall state that such land is properly reserved for use only as open space in perpetuity.

4F.1. (B) Perpetual Easement to the Town. Where the right of use, interest or privilege, short of ownership in the open space owned by another is obtained by the Town, a deed stipulating that the owner transfers development rights to, and an open space or scenic easement over, the land shall be acquired. The owner shall retain the fee title to the premises and all incidents of ownership therein except the right to construct any structure, sign, fence or other improvement thereon, to alter the contours thereof and to plant or remove flora thereon.

4F.1. (C) Deeded to a Non-Profit Organization Acceptable to the Commission. Where open space areas are to be conveyed to a non-profit organization, the applicant shall convey them at the stage and in the condition agreed upon in connection with processing and approval of the subdivision. Title to the land shall be unencumbered. Such non-profit organization shall take title to such land at a time approved by the Commission and, in any case, not later than the time at which title to the streets in said subdivision is accepted by the Town. Acceptance of an open space area, when conveyed

by the applicant, shall be endorsed upon the deed by the duly authorized officer of such non-profit organization and shall be recorded which deed shall state that such land is properly reserved for use only as open space in perpetuity.

4F.1. (D) Held in Corporate Ownership by Owners of the Lots within the subdivision. Where open space areas are to be held in corporate ownership, said corporation shall not take title to such land until 75% or more of the lots in said subdivision have been sold by the applicant, and said applicant shall have voting strength based on the number of lots owned by the applicant. Membership in said corporation shall be mandatory for all lot owners in said subdivision. Each deed conveyance to lot owners in said subdivision shall include the membership stipulation, the beneficial right in use of the open land, and all other restrictions pertaining thereto. The applicant shall file such deeds with all necessary legal documents in the Town land records at the time the approved Final Subdivision Plan is filed.

4F.2. GUARANTEES. Regardless of the method employed, the instrument of conveyance must include provisions suitable to the Commission for guaranteeing:

4F.2. (A) The continued use of such land for the intended purpose.

4F.2. (B) Continuity of proper maintenance of those portions of the common open space land requiring maintenance.

4F.2. (C) When appropriate, the availability of funds required for such maintenance.

4F.2. (D) Adequate insurance protection.

4F.2. (E) Recovery of loss sustained by casualty, condemnation or otherwise.

4G. INLAND WETLANDS AND WATER COURSES. All land or land protected by the Inland Wetlands and Water Courses Act and Town Ordinances and Regulations pursuant thereto, shall be noted on the application for subdivision and delineated on the subdivision map. The Commission may refer subdivisions which have inland wetlands and watercourses to the Middlefield Inland Wetlands and Water Courses Commission for their advisory opinion.

4G.1. Special Flood Hazard Areas. All land designated as special flood hazard areas on the Zoning Map, Town of Middlefield shall be noted on the application for subdivision

and delineated on the subdivision plan.

AG.2. All subdivision proposals shall be consistent with the need to minimize flood damage.

4G.3. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.

4G.4. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.

4G.5. All subdivision proposals shall be reviewed to assure that all other necessary permits have been received from agencies from which approval is required by Federal or State law or Local ordinance or regulation.

4H. PEDESTRIAN RIGHTS-OF-WAY. The Commission may require that land be reserved for the rights-of-way for pedestrian or bicycle travel in subdivisions between subdivisions, or between a subdivision and public property.

4I. FIRE PONDS. The Commission may require for fire protection, the construction and dedication of ponds on natural watercourses, in any subdivision.

4J. EROSION AND SEDIMENTATION CONTROL PLANS. A soil erosion and sedimentation control plan shall be submitted with any subdivision application for development. The plan shall conform to the minimum standards set forth in the Connecticut Guidelines for Soil Erosion and Sedimentation Control (1985), as amended. Such Erosion and Sedimentation Control Plan may be referred to the Middlesex County Soil and Water Conservation District for review.

4J.1. The plan shall conform to Section 10.09 of the Middlefield Zoning Regulations. The Commission may allow the erosion and sediment control plan to be drawn on the site development plan if it is practical to do so. In submitting an erosion and sediment control plan, the applicant shall address, at a minimum, the following issues:

4J.1. (A) Location of areas to be stripped of vegetation and other exposed or unprotected areas.

4J.1. (B) A schedule of operations to include starting and completion dates for major development phases, such as land clearing and grading, street, sidewalk, and storm sewage installation, etc.

4J.1. (C) Seeding, sodding, or revegetation plans and specifications for all unprotected or unvegetated areas.

4J.1. (D) Location and design of structural sediment control measures, such as diversions, waterways, grade stabilization structures, debris basins, etc.

4J.1. (E) Timing of planned sediment control measures.

4J.1. (F) General information relating to the implementation and maintenance of the sediment control measures.

4J.2. EXCAVATIONS, FILLS, AND GRADING.

4J.2. (A) Cut and fill slopes shall not be steeper than 3:1 unless stabilized by a retaining wall or cribbing, except as approved by the Commission under special conditions.

4J.2. (B) Adequate provisions shall be made to prevent surface water from damaging the cut face of excavation or the sloping surfaces of fills.

4J.2. (C) Cut and fills shall not endanger adjoining property.

4J.2. (D) Fill shall be placed and compacted so as to minimize sliding or erosion of the soil.

4J.2. (E) Grading shall not be done in such a way so as to divert water onto the property of another landowner without the expressed consent of that landowner and the Commission.

4J.2. (F) Fills shall not encroach on natural watercourses or constructed channels.

4J.2. (G) During grading operations, necessary measures for dust control shall be exercised.

4J.2. (H) Grading equipment will not be allowed to cross live streams except by means of bridges and culverts or other methods as approved by the Commission.

4J.3. IMPLEMENTATION PROCEDURES. In submitting the Erosion and Sedimentation Control Plan, the Applicant shall comply with the following:

4J.3. (A) The Development plan should be fitted to the topography and soils so as to create the least erosion potential.

4J.3. (B) Wherever feasible, natural vegetation should be retained and protected.

4J.3. (C) Only the smallest practical area of land should be exposed at any one time during development.

4J.3. (D) When land is exposed during development, the exposure should be kept to the shortest practical period of time.

4J.3. (E) Where necessary, temporary vegetation and/or mulching should be used to protect areas exposed during development.

4J.3. (F) Sediment basins (debris basins, desilting basins or silt traps) should be installed and maintained to remove sediment from runoff waters and from land undergoing development.

4J.3. (G) Provisions should be made to effectively accommodate the increased runoff caused by changed soil and surface conditions during and after development. Computations for runoff shall be in accordance with methods described in "Technical Release No. 55, Urban Hydrology, Engineering Division, Soil Conservation Service, U.S.D.A., January 1975, as amended."

4J.4. (H) The permanent final vegetation and structures should be installed as soon as practical in the development.

4.J.4. CONDITIONS RELATING TO EROSION CONTROL.

4J.4. (A) The Middlefield Planning Commission may refer these plans to the Middlesex County Conservation District or other agency or person for consultive technical assistance.

4J.4. (B) Three (3) sets of plans for the control of erosion and sedimentation, if required, shall be submitted to the Commission, or its duly authorized representative, at the time the Final Drawings are submitted.

4J.4. (C) Measures to be taken to control erosion and sedimentation, if required, may be described and provided for in construction agreement and the estimated cost of accomplishing such measures may be covered in a performance bond acceptable to the Commission.

4K. DRAINAGE IMPROVEMENTS. All subdivisions of land and proposed land uses shall not alter natural watercourses, natural drainage and run-off areas or existing drainage and run-off areas unless suitable plans meeting the other requirements of these regulations,

certified by a professional engineer licensed in the State of Connecticut, are provided and approved by the Commission. Drainage facilities shall, in all cases, be large enough to accommodate potential run-off from the entire upstream drainage area, whether inside or outside the subdivision, under conditions of maximum development permitted by the zoning and/or subdivision regulations.

4L. BODIES OF WATER. If a tract of land being subdivided contains a body of water or portion thereof (including a dam and/or structures), the Commission may require that the lot lines be so drawn as to place the entire ownership and burden of maintenance of the body of water and the dam and/or other structure, in undivided ownership.

4M. TREE PRESERVATION PLAN. In order to prevent the cutting and destruction of trees which are necessary for sedimentation and erosion control, the applicant may be required to provide the Commission with a program for the preservation of such trees.

4N. STREET TREES. The Commission may require the subdivider to plant street trees.

4O. RESERVED STRIPS. No privately owned, reserved strip shall be permitted which controls or impedes access to any part of the subdivision or to adjacent land from any street or open space reserved for dedication for any public use.

4P. STREET DESIGN CRITERIA. Streets shall be of sufficient width, suitably located and adequately constructed to accommodate the prospective traffic and to afford access of police, fire fighting, snow removal and other road maintenance equipment and shall be coordinated so as to compose a safe and convenient system. The arrangement of streets shall be such as to cause no undue hardship to adjoining properties. All streets shall be constructed in accordance with the Town's specifications for road or street construction.

4P.1. STREET LAYOUT. The street plan of a proposed subdivision shall bear a logical relationship to the topography of the property.

4P.2. CONTINUATION OF EXISTING STREETS. The arrangement of streets in the proposed subdivision shall provide for the continuation of existing streets in adjoining subdivisions and for the proper projection of proposed streets into adjoining properties which are not yet subdivided, except where topography, soils, or other conditions make such continuance impractical or undesirable, as determined by the Commission.

4P.2. (A) When a subdivider proposes the continuation of an existing dead-end street, it shall be the full responsibility of that subdivider to improve said

street extension or connection. This includes but is not limited to, the removal of any temporary turnaround, the replacement of all curbs and driveway aprons, the replanting of all unpaved areas and the extension or connection of all other required improvements.

4P.2. (B) When a subdivider proposes the extension of planned streets, the Commission may require the subdivider to improve all or any portion of said planned street right-of-way.

4P.2. (C) The Commission may require the subdivider to post satisfactory surety to sufficiently cover the estimated cost of removing any existing turnaround area, replacing all curbs and driveway aprons, replanting all unpaved areas, extending the future street together with all other required improvements, or any portion of said removing, replacing, replanting, and extending which is or would be located between the point of termination of such dead-end street and the boundary of the subdivision.

4P.3. STREET DESIGN. Streets shall be designed in accordance with the following schedule:

Street Design (Minimum Requirements)		
<u>Type of Road</u>	<u>Local and Cul-de-sac</u>	<u>Collector</u>
R.O.W. width, ft. (see note)	50	50
Pavement width, ft.	24	30
Curb	required	required
Minimum sight distance, ft.	150	200
Design speed m.p.h.	25	30
Minimum center line radius of curves, ft.	125	150
Tangent between curves, ft.	100	125
Maximum grade, %	10	8
Minimum angle at intersections	60°	75°
Vertical alignment within 100 ft. of intersection, %	4	2
Minimum offset to adjacent intersections, ft.	200	1,000
<u>Turnaround</u>		
Radius to outside of R.O.W.	55	
Radius to outside of pavement	45	

NOTE: The total roadway right-of-way may be in excess of the above minimum where required to accommodate unusual construction features

such as deep cuts, fills or other appurtenant items as well as safety considerations.

4P.4. STREET WIDENING. Where a subdivision abuts or contains an existing street which does not comply with the minimum width requirements, the Commission may require additional widths where deemed necessary or less width only to connect existing streets within areas which were substantially built up on the effective date of these regulations. When required by the Commission, the subdivider shall dedicate the necessary right-of-way to the Town for street widening and shall show such right-of-way and/or roadway widening on the final subdivision plan. Drainage or other improvements made necessary by the subdivision shall be constructed by the subdivider in such street.

4P.5 DEAD-END STREETS.

Residential Zones

No permanent or temporary dead-end street shall exceed 1,200 feet in length except as is noted below.

The Planning and Zoning Commission may approve, by waiver, the extension of a dead-end streets to not more than 2,000 feet in residential zones provided: (1) the applicant shall demonstrate that the longer road length is in the best interest of the Town of Middlefield; (2) the subdivision road serves no more than 24 lots; (3) the extension shall reduce the overall impact on the site and preserve significant natural features; (4) adequate fire protection measures, as determined by the Commission, shall be provided; and (5) adequate access for emergency services shall be provided.

Commercial and Industrial Zones

No permanent or temporary dead-end streets shall exceed 1,200 feet in length except as provided below.

The Planning and Zoning Commission may extend dead-end streets to 2,000 feet in industrial zones provided the applicant demonstrates to the Commission that the longer road length is in the best interest of the Town of Middlefield and one of the following conditions exist: (i) an alternate access having adequate grade and surface conditions to allow passage of emergency vehicles at all times; (ii) fire protection in the form of public water or fire ponds is available within 1,000 feet of the boundary of any lot.

General

No privately owned reserve strips which control future extension of streets or access to land dedicated to the public use shall be permitted.

All permanent or temporary dead-end streets shall terminate in a turn-around with a right-of-way 110 feet in diameter, 90 feet of which shall be paved and is in conformance with Figure 1 "Town of Middlefield Cul-De-Sac Detail".

4P.6. STREET GRADES. Streets shall be designed so as to avoid excessive cuts and fills and to avoid a combination of steep grades and sharp curves. The Commission may require all streets to be graded the full width of the right-of-way. Grades of all streets shall conform to the specifications in Section 4P.3.

4P.7. STREET INTERSECTIONS. The following standards shall apply to all street intersections:

4P.7. (A) Layout and Spacing. Cross (four-cornered) street intersections shall be avoided, where possible. All intersections shall be spaced at least 150 feet apart, measured between centerlines.

4P.7. (B) Angles. Except where impractical or undesirable, all streets shall intersect at approximately right angles. No intersections shall be less than 60 degrees. The angle of entry shall not become more acute than 60 degrees for a distance of at least 100 feet from the center of the intersection.

4P.7. (C) Radii. At right angle street intersections, right-of-way lines shall be rounded by an arc having a minimum radius of 25 feet, and curb lines shall be rounded by an arc having a minimum radius of 14 feet. The Commission may require greater radii where the street intersection is sharper than 90 degrees.

4P.7. (D) Gradients. The gradient of proposed streets at intersections shall generally not exceed 2 percent within a distance of 100 feet from the center of the intersection.

4P.8. STREET NAMES. All streets shown on a proposed subdivision shall be named. Proposed street names shall be substantially different so as not to be confused in sound or spelling with present names in the Town of Middlefield except that streets that join or are in alignment with streets of an abutting or neighboring property shall bear the same name. All names shall be approved by the Board of Selectmen.

4P.9. STREET IMPROVEMENTS. The developer shall install all required sidewalks, curbs, storm drains and pavement on proposed streets, as well as curbs, sidewalks, and pavement between the edge of existing pavement and the new curb line on existing streets which bound or intersect the proposed subdivision. The developer shall also install all required street signs, monuments, driveway aprons and street trees. Such improvements shall be installed in accordance with Town or utility company standards and specifications.

4P.10. CONSTRUCTION STANDARDS. All streets in Middlefield shall be constructed in accordance with the adopted Town specifications for road construction.

4Q. STORMWATER RUNOFF CONTROL PLANS. Site Plans shall be accompanied by plans providing measures for detention and controlled release of stormwater runoff when proposed developments contain an area of five (5) acres or more. All other developments may be required to provide such measures if deemed necessary to protect the public health, safety and well-being by the Middlefield Planning and Zoning Commission.

4Q.1. General Requirements for Stormwater Runoff Control

When required, measures for the detention and controlled release of stormwater runoff shall meet the following standards and shall be designed in accordance with the requirements as set forth in the Connecticut Guidelines for Soil Erosion and Sediment Control (1985), as amended.

4Q.1. (A) Peak discharged from the 2-year, 10-year, and 100-year frequency, 24-hour duration, type III distribution storms shall be analyzed. No increases in peak flow from these storms shall be allowed. This may be accomplished by detention basins, roof or parking lot storage or other acceptable means.

4Q.1. (B) The required stormwater detention volume shall be that necessary to handle the runoff from the drainage area of a 100-year frequency, 24-hour duration, type III distribution rainfall, as published by the National Weather Service or other recognized agency, minus that volume discharged during the same duration at the approved rate as specified in (1).

4Q.1. (C) For developments of less than 10 acres, runoff may be computed using the rational formula. In all other cases, runoff shall be computed in accordance with Technical Release #55, Urban Hydrology, Engineering Division, Soil Conservation Service, USDA, January, 1975, as amended.

4Q.2. When the Commission determines that engineering, aesthetics, and economic factors make combined retention or other drainage facilities more practical for construction by the Town, the Town shall require a fee or equivalent dedication of land which shall be used to construct these facilities. The Commission may permit several developers to construct joint facilities.

4Q.3. Maximum infiltration to the ground water is encouraged. Design of the stormwater management system shall consider reducing runoff by use of such techniques as minimizing impervious areas and maximizing travel times by using grass or rock-lined channels in lieu of storm sewers.

4Q.4. All on-site facilities shall be properly maintained by the owner such that they do not become nuisances.

4Q.5. All runoff control structures located on private property whether dedicated to the Town or not shall be accessible at all times for Town inspection. Where runoff control structures have been accepted by the Town for maintenance, access easements shall be provided.

4Q.6. Runoff management system components shall be designed according to sound engineering principles and installed in a sequence that permits each to function as intended without causing a hazard. Single components shall not be installed until plans for the entire runoff management system are completed and approved. Final discharge points shall be approved by the Commission or its authorized agent.

4Q.7. Runoff management systems shall be visually compatible with the surrounding landscape.

4Q.8. Permits for runoff management systems may also be required from the Inland Wetlands Commission where such systems may have an impact on inland wetlands, and from the Connecticut Department of Environmental Protection where a dam is to be constructed or water diverted. See Sections 22a-365 et seq. and 22a-409 of the Connecticut General Statutes.

4R. PASSIVE SOLAR ENERGY TECHNIQUES. The applicant shall demonstrate to the Commission that he has considered, in developing the plan, using passive solar techniques which would not significantly increase the cost of the housing to the buyer, after tax credits, subsidies and exemptions. Passive solar energy techniques mean site design techniques which maximize solar heat gain, minimize heat loss and provide thermal storage within a building during the heating season and minimize heat gain and provide for natural ventilation during the cooling season. The site design techniques shall include, but not be limited to: (1) house orientations; (2) street and lot layout; (3) vegetation; (4)

natural and man-made topographical features; and (5) protection of solar access within the development.