



CITY OF MERIDEN
PLANNING COMMISSION

**SUBDIVISION
AND
DEVELOPMENT
REGULATIONS**

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TITLE I

GUIDELINES FOR DEVELOPERS

GUIDELINES FOR DEVELOPERS

The following is a summary of the major aspects of good site planning. All developers proposing new subdivisions in the City of Meriden shall consider the following guidelines before developing a subdivision plan for presentation to the City Planning Commission.

1. CONSERVE NATURAL BEAUTY

Layout your streets and site your houses carefully so that you save most of the trees and conserve the natural beauty of the area. Nothing beautifies an area more than 'trees, which explains why people prefer wooded lots and cheerfully pay more money for them. Unfortunately, many fine trees have been destroyed by builders who think it is cheaper to build on completely cleared land. This is very seldom true. In addition, many fine trees have been destroyed by careless bulldozer operations in the course of clearing brush and excavating. If you wish to save your trees (and the Planning Division will be watching you carefully in this) you should mark the trees that are to be taken out for roadways and for houses by running a colored tape around the trees or marking them with chalk or in some other manner so that it is easy to see which trees are to be removed.

2. VARY SET BACKS

To help preserve the natural beauty of your subdivision and to improve the aesthetics, each house should be sited 'properly. You should vary the set backs so that each house has a maximum privacy and the best view, and where necessary to save the trees and minimize bulldozing. Variations in set backs are more easily attained with 15,000 square foot lots.

3. UNDERGROUND UTILITIES

The worst eye sore in most subdivisions is the string of tall power poles covered with drooping wires. If the utility companies should charge a small additional sum for the placement of underground utilities, you should be able to recoup the cost in the sale of the homes, since they will be much more attractive and thus, much more marketable.

4. FOLLOW THE NATURE OF THE LAND

Plan your development to take advantage of the natural conditions of the land. Save the natural contours and original vegetation. Utilize views wherever possible. Conserve water areas. Nothing enhances a development more than water in the form of streams, ponds or lakes.

5. DEDICATE OPEN SPACE (Amended 11/8/06)

In any subdivision or development plan as authorized, the City Planning Commission will require a developer to dedicate some open space land, per the standards of Title II Section 3.66 except in unusual cases where the Commission deems this either impractical or unnecessary and other substitution is offered and accepted by the Commission. The best examples of subdivision planning have been those in which the subdividers have dedicated open space land. If this open space land is developed properly, you will discover that home sales will run far ahead of construction.

6. BEAUTIFY THE OPEN SPACE WITH LANDSCAPING

Any open space can be made more beautiful and more usable if it is skillfully planted according to a well thought-out plan. Utilize native trees and shrubs which are hearty enough so that children or dogs cannot destroy them. Assure that no utility lines are above ground in these open spaces as this makes them virtually unusable.

7. PEDESTRIAN CIRCULATION

Put the automobile in its place by separating cars and people. If you utilize the cluster principle of planned developments, the family life will turn away from the street and inward toward your open space areas. This will require, of course, a large number of cul-de-sacs and very good site planning.

8. STREET LAYOUT

Do not settle for old fashioned street layouts; utilize the cluster principle, cul-de-sac and curve linear streets.

9. PLAN FOR THE SAFETY OF CHILDREN

One of the biggest assets of planned communities is their safe pedestrian paths to schools and other community facilities. In these subdivisions, the park areas are linked by underpasses or pedestrian bridges so that children never need cross a street.

10. HOUSING TYPES

Use several types of houses to avoid monotony. Do not plan one only one type of single-family house to appeal to one specific age and economic group. Wherever possible, plan large subdivisions to include several types of houses in the same subdivision.

11. PLAN IN ACCORDANCE WITH THE CITY PLAN of Conservation and Development

It is necessary that subdivisions be developed in accordance with the City Plan of Conservation and Development so that adequate community facilities can be available for the persons residing in the newly developed areas.

12. PLAN CAREFULLY

Utilize good site planners and engineers in carefully planning your subdivision to meet City standards and make them economically profitable. Check subsoil conditions before planning for individual septic tanks. Be assured that adequate community services and facilities are available. The Planning Division can provide you with much of this information and can suggest improvements before formal submission of subdivision plans. AND, before doing anything, BECOME FAMILIAR WITH THE CITY PLANNING COMMISSION'S SUBDIVISION REGULATIONS.

TITLE II

SUBDIVISION REGULATIONS

SUBDIVISION REGULATIONS

CITY PLANNING COMMISSION

MERIDEN, CONNECTICUT

SECTION 1.00 PURPOSE

The purpose of these Subdivision Regulations is to:

Provide for the orderly growth of the City;

Establish standards for the design and the construction of streets and improvements in new residential, commercial or industrial subdivisions;

Insure that only land which can be used for building purposes without danger to health will be subdivided;

Insure increased safety in the use of streets;

Safeguard residential streets from the hazard of excessive traffic;

Make possible adequate fire protection by providing space for the movement of fire fighting equipment;

Protect and preserve natural resources from nonpoint sources of pollution through the proper management of stormwater flows;

Safeguard the City from undue future expenditures for the maintenance of streets and open spaces dedicated to public use by private developers; and

In general, promote the public health and welfare, and insure the proper use of land, in accordance with the provisions of Section 8-25 of the General Statutes of the State of Connecticut, 1958 Revision, as amended.

SECTION 2.00 DEFINITIONS

Unless otherwise expressly stated, the following words and phrases shall be construed throughout these regulations to have the meaning indicated in the article.

2.01 COLLECTOR STREET, SECONDARY

A street designed or used to some extent for through traffic and to some extent for primary access to abutting properties and to carry traffic from a local street to an arterial street or highway.

2.02 COMMISSION

The Planning Commission of the City of Meriden, County of New Haven, Connecticut.

2.03 CUL-DE-SAC

See "Dead End Street"

2.04 COUNTY SOIL AND WATER CONSERVATION DISTRICT

The Southwest Conservation District established under subsection (a) of Section 22a-315 of the General Statutes.

2.05 DEAD END STREET

A street accessible from only one end. Adequate space for snow removal must be provided.

2.06 DEVELOPMENT

Any construction or grading activities to improved or unimproved real estate.

2.07 DEVELOPMENT PLAN

The General Development Plan, City of Meriden, Connecticut as prepared and adopted by the Planning Commission, pursuant to Chapter 26 of the General State Statutes of Connecticut, 1958 Revision, as amended.

2.08 DISTURBED AREA

An area where the ground cover is destroyed or removed leaving the land subject to accelerated erosion.

2.09 EASEMENT

A right which one person has to use land owned by another that entitled the holder to a special limited use or enjoyment.

2.10 EROSION

The detachment and movement of soil or rock fragments by water, wind, ice, or gravity.

2.11 GRADING

Any excavating, grubbing, filling (including hydraulic fill) or stockpiling of earth materials (or any combination thereof), including the land in its excavated or filled conditions.

- 2.12 IMPROVEMENT (Amended 5/8/85)
Any construction or work such as installation of storm sewer drains or drainage, water lines, sanitary sewers or other utilities, including street lights and supports, street construction, or other action required by the Planning Commission as a condition for approval of the subdivision plan.
- 2.13 INSPECTION
The periodic review of sediment and erosion controls and other improvements as shown on the approved plan.
- 2.14 LOCAL STREET
A street designed or used primarily for access to abutting properties.
- 2.15 LOT
A parcel of land occupied or designed to be occupied by one building and the accessory buildings or uses customarily incident to it, including such open spaces as are arranged and designed to be used in connection with such buildings.
- 2.16 MAJOR ARTERIAL STREET
A street designed or used primarily for through traffic.
- 2.17 RESUBDIVISION
A change in a map of an approved or recorded subdivision or resubdivision if such change (a) affects any street layout shown on such map, (b) affects any area reserved thereon for public use, or (c) diminishes the size of any lot shown thereon, if any of the lots shown thereon have been conveyed after the approval or recording of such map.
- 2.18 SEDIMENT (Amended 5/14/86)
A solid material, either mineral or organic, that is in suspension, is transported, or has been moved from its site of origin by erosion.
- 2.19 SOIL (Amended 5/14/86)
Any unconsolidated mineral or organic material of any origin.
- 2.20 SOIL EROSION AND SEDIMENT CONTROL CERTIFICATION
A signed written approval by the Planning Commission that a soil erosion and sediment control plan complies with the applicable requirements of these regulations.
- 2.21 SOIL EROSION AND SEDIMENT CONTROL PLAN
A scheme that minimizes soil erosion and sedimentation resulting from development and includes, but not limited to, a map and a narrative.
- 2.22 STREET
Any dedicated public thoroughfare which affords principal access to abutting properties. This shall include street, highway, road, lane or drive.

2.23 SUBDIVISION

The division of a tract or parcel of land into three or more parts or lots for the purpose, whether immediate or future, of sale or building development expressly excluding development for agricultural purposes and including resubdivision.

2.24 VERY LOW DENSITY LOW IMPACT RURAL STREET (added 5/11/11)

A local street in the rural residential (R-R) district serving large standard sized lots where there is no feasible physical way to connect through to another street or to extend development beyond 10 lots. This street may be specially designed and approved by the Commission utilizing standards defined within these regulations while demonstrating consistency with the Plan of Conservation and Development's objective to develop larger higher value homes to diversify and balance the housing stock.

SECTION 3.00 SUBDIVISION DESIGN STANDARDS AND REQUIREMENTS

3.10 SUBDIVISION OF LAND

No subdivision of land shall be made until a plan for such subdivision has been approved by the Commission. Any person, firm or corporation making any subdivision of land without the approval of the Commission shall be fined not more than two hundred (\$200) dollars for each lot sold or offered for sale or so subdivided. All plans for subdivision shall, upon approval, be filed or recorded in the City Clerk's office. Any plan, not so filed or recorded within ninety days following its approval by the Commission or within ninety days of the date upon which such plan is taken as approved by reason of the failure of the Commission to act, shall become null and void. No such plan shall be recorded or filed by the City Clerk or other officer authorized to record or file plans until its approval has been endorsed thereon, and the filing or recording of a subdivision plan without such approval shall be void.

3.20 CHARACTER OF LAND TO BE SUBDIVIDED

Land proposed to be subdivided shall be of such character that it can be used for building purposes without danger to health or the public safety: proper provision shall be made for water, drainage and sewerage, and in areas contiguous to brooks, rivers or other bodies of water subject to flooding, proper provisions shall be made for protective flood control measures; and proposed streets shall be in harmony with existing or proposed principal thoroughfares shown in the Comprehensive Plan of Development.

3.30 VARIANCES

The Planning Commission may vary any requirement or standard contained in these regulations if the Commission deems such action essential due to unusual topographic conditions, provided, however, that any variance granted shall not conflict with the general purpose and intent of these regulations or the Zoning Ordinance. To seek such a variance, the applicant shall make a written request to the Commission explaining fully the reasons for such variance and shall submit this request with the subdivision plan. Action by the Commission on such request will be taken as part of its action on the plan.

3.40 COMPLIANCE WITH ZONING

The final subdivision plan shall comply with the Zoning Ordinance and Zoning Map in effect on the date of receipt of complete subdivision application by the Planning

Commission and the provisions of the Plan of Conservation and Development adopted by the Planning Commission insofar as it is consistent with the Zoning Ordinance. Improvements shall be in accordance with the standards of the Departments of Public Health, Public Safety and Public Works.

3.50 DESIGN STANDARDS

3.51 STREETS

The Planning Commission shall classify all streets in a subdivision as major, collector or local streets and shall determine the width and alignment of the rights-of-way and paved roadways in the case of all streets not shown on the Comprehensive Plan. Streets shall meet the minimum requirements as follows:

1. Street Width and Design

Street widths shall be measured as the shortest distance between the lines delineating the rights-of-way. The Planning Commission may prescribe additional requirements where unusual conditions exist. Street lines on existing City streets shall be provided by the City Engineer (herein and after meaning the Engineer directing Public Works, or designated City Engineer). Minimum standards for pavement width may need to be supplemented for situations of additional travel/turn lanes and/or on-street parking on Major or Collector Streets. Generally, streets shall be designed and constructed in accordance with the following table:

STANDARD	STREET CLASSIFICATION		
	<u>MAJOR</u>	<u>COLLECTOR</u>	<u>LOCAL</u>
Minimum Right-of-Way Width	70 ft.	60 ft.	50 ft.
Minimum Pavement Width	32 ft.	30 ft.	28 ft.
Minimum Centerline Radius for Horizontal Curves	500 ft.	280 ft.	175 ft.
Maximum Grade	5%	7%	10%
Minimum Sightline Distance	500 ft.	350 ft.	230 ft.
Minimum Grade	1%	1%	1%
Minimum Reverse Curve Tangent	350 ft.	250 ft.	100 ft.
Construction Specification	1	2	3

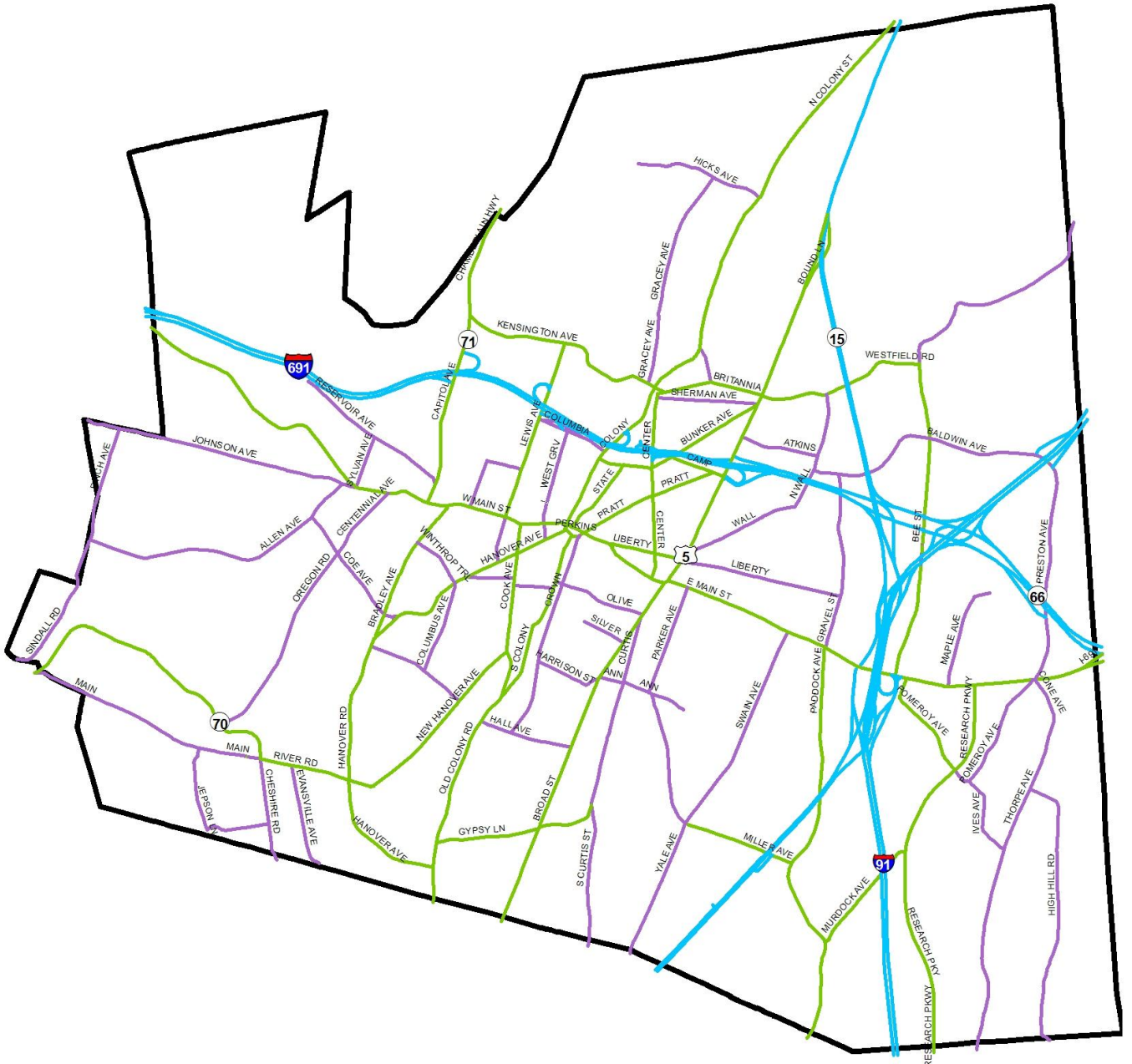
For a new very low density low impact rural street, special standards may be applied to a street eligible and approved for low impact development stormwater design as described in Title V. On such streets with low volume and low speed, decreased pavement width, reduced minimum centerline radius, reduced minimum reverse curve tangent and reduced sightline distances may be proposed for street segments with maximum grades of at least 2% and not exceeding 6%.

A map of existing local classified major and collector roads is shown on the following page. In addition to the design criteria set forth in these Subdivision and Development Regulations, designs shall be guided by the minimum criteria of the latest revisions of "A Policy on Geometric Design of Highways and Streets" as published by the American Association of State Highway and Transportation Officials (AASHTO), and the "Geometric Design Standards" as published by the State of Connecticut Department of Transportation for state highways. As stated in the AASHTO Policy: "The intent of this policy is to provide guidance to the designer by referencing a recommended range of values for critical dimensions. Sufficient flexibility is permitted to encourage independent designs tailored to particular situations." Factors such as urban streets with lower speeds, the presence of street trees, on street parking, and residential settings may call for context sensitive design flexibility rather than rigid application of standards. The standards are intended for safety, not to promote greater speed.

The following minimum design speeds shall generally be used:

Local Road.....	25-30 miles per hour
Collector Street.....	35-40 miles per hour (less in urban areas)
Major Street.....	45-50 miles per hour (less in urban areas)

(amended 5/11/11)



City of Meriden

Street Classification

Legend

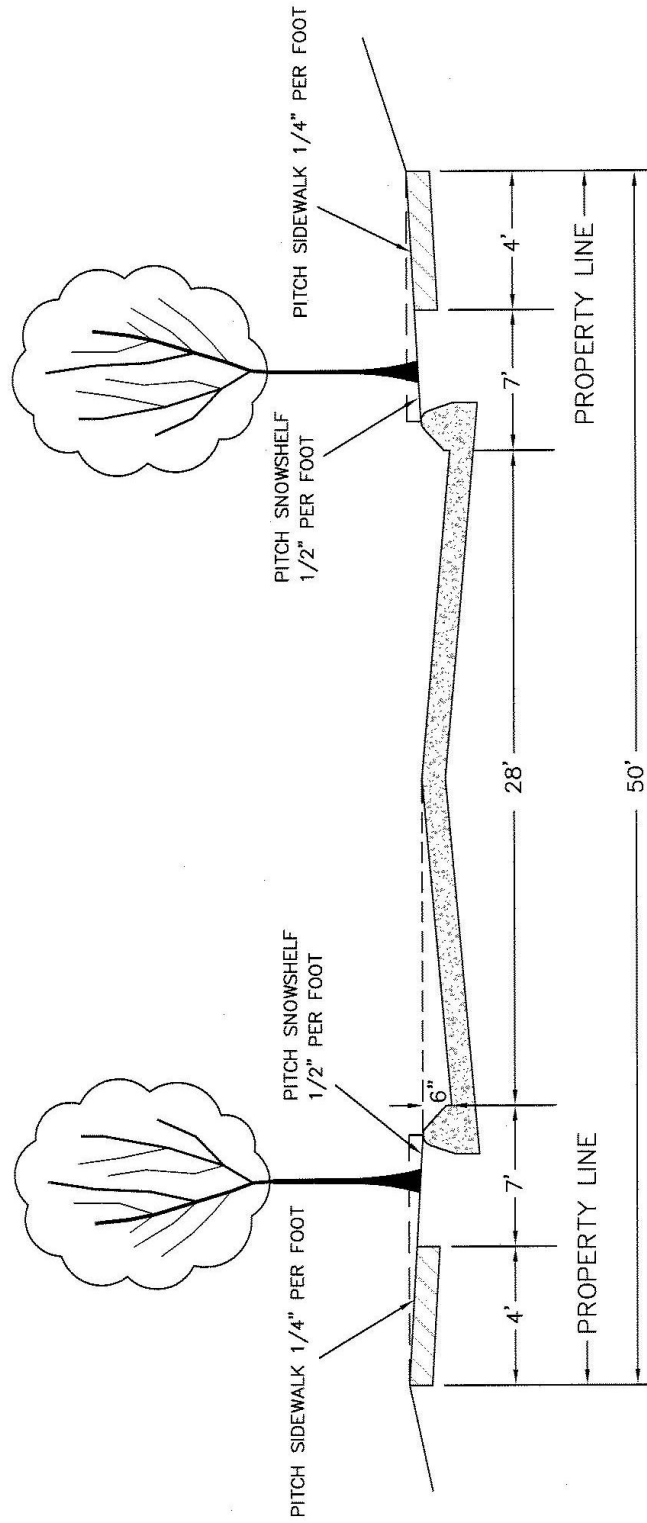
- Highways
- Major Streets
- Collector

SOURCES:
 City of Meriden Street Classification Map (non digital)
 State Highways: Connecticut Department of Transportation

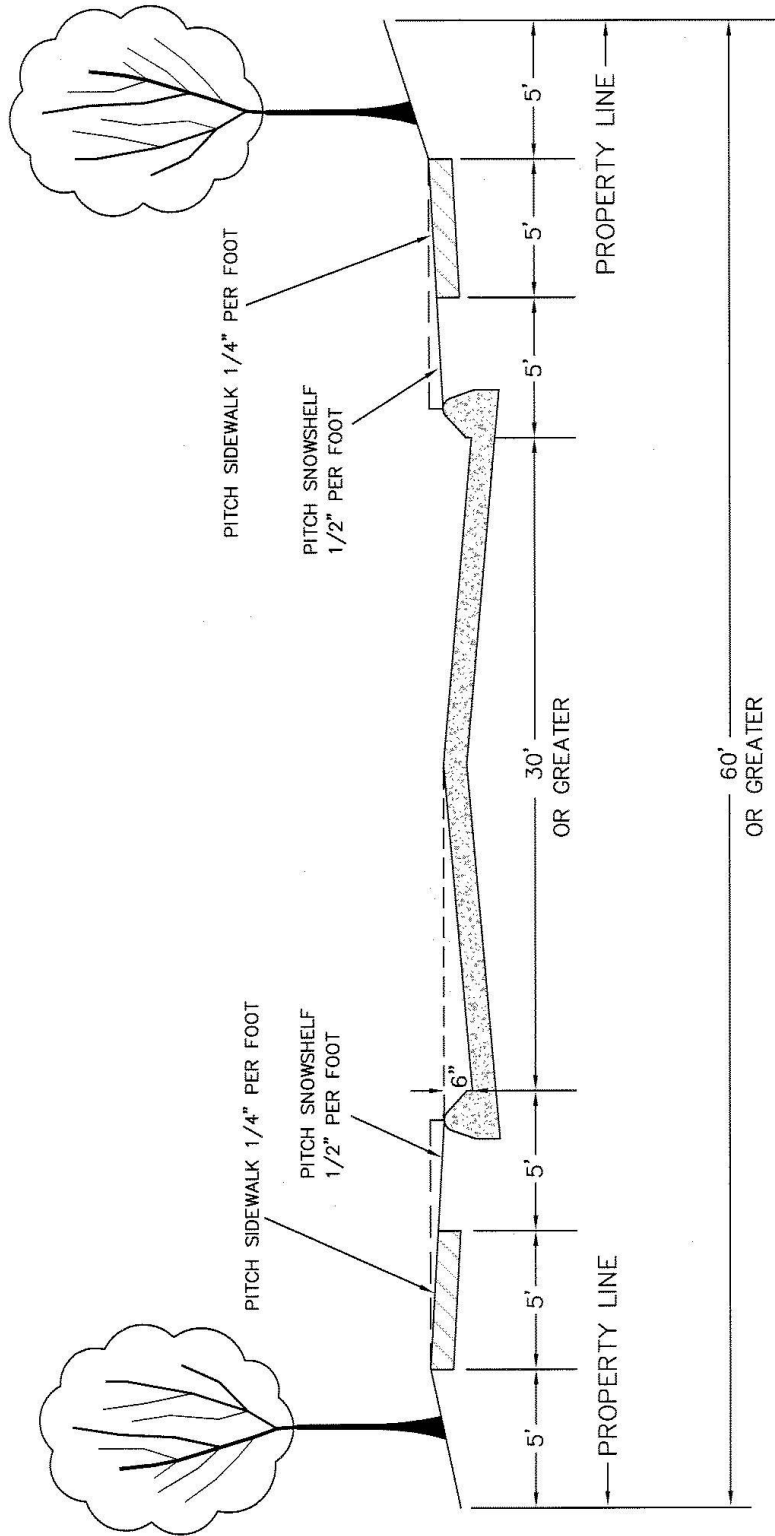
DELINEATIONS MAY NOT BE EXACT.

Planning Division November 2010

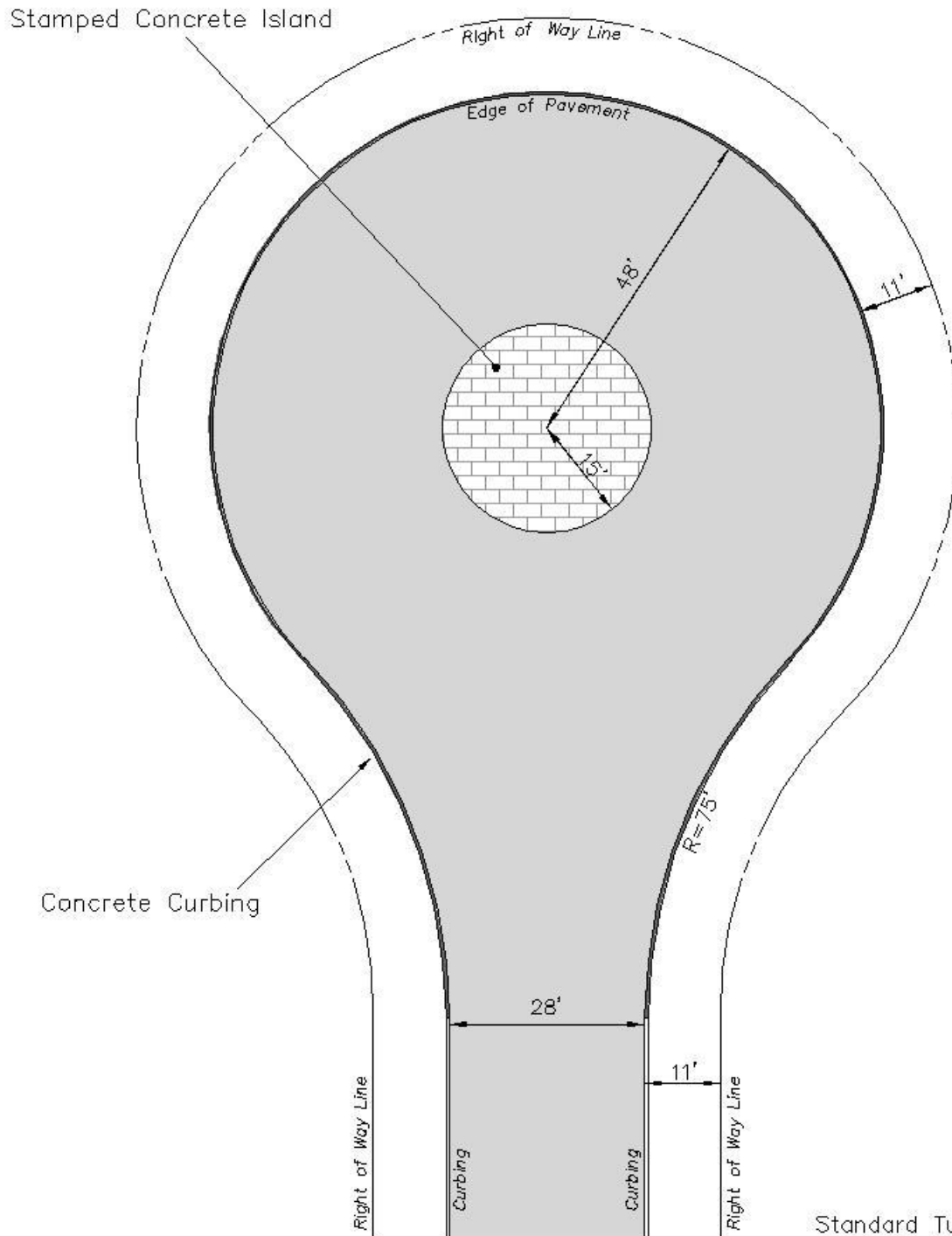
TYPICAL CROSS SECTION OF LOCAL STREETS



TYPICAL CROSS SECTION OF COLLECTOR STREETS



Revised February 2011



Standard Turnaround
 Cul-de-sac for
 Local Residential Streets
 of 28' Width or Greater
 April 26, 2011

2. STREET INTERSECTIONS

Intersections with major or collector streets shall be located not less than 800 feet apart, measured from center line to center line of the intersecting streets. Streets abutting opposite sides of another street shall be directly opposite each other or with a minimum offset of 125 feet between their center lines. Streets shall intersect at an angle as near to 90 degrees as practicable. In no case, shall a deviation from a right angle intersection of more than 30 degrees be permitted. Intersecting street lines shall be relieved by a curve with minimum radius of 20 feet. Intersecting curb lines shall be relieved by a curve with a minimum radius of 30 feet.

3. STREET CONSTRUCTION

a. Preconstruction Conference

A preconstruction conference between the contractor who has been awarded a contract for work in the subdivision, the developer of the subdivision, the City Engineer and City Planner shall be held. At this meeting an agreement shall be made on time schedules for the improvements required in a subdivision and the City construction standards governing this construction. In addition, a tentative completion and inspection schedule shall be agreed upon.

b. Utility and Street Construction

1. Streets shall be graded to the full width of the right-of-way, except that in the case of difficult topography, the Commission may waive the requirement where the public safety is not in danger.
2. Streets, curbs, gutters, sidewalks, storm water drainage lines, catch basins, sanitary sewers and water lines required shall be constructed in accordance with the best modern practice and the standards of the Department of Public Works. Where site grading is required, land shall be brought to final grade and lot grades exceeding 5% of subject top erosion, shall be stabilized with grass or ground cover whether or not these are to be built upon in the future. Streets shall be constructed in accordance with the standards prescribed by the Department of Public Works and as shown on the enclosed street specification sheets provided however that bituminous curbing shall be permitted in new subdivisions located in the Outer Tax District which are zoned S-R, R-R, and R-1 except that concrete or granite curbing shall be required at all intersection radii and on all permanent cul-de-sacs and turnarounds. Concrete curbing is required for all subdivisions in Commercial, Industrial, and higher density Residential districts (R-2, R-3, and R-4) and in all subdivisions in the Inner Tax District. (Amended 12/12/84)

Bituminous concrete driveway ramps shall be installed at all curb cuts where bituminous curbing is permitted. Said curb cuts shall be constructed in accordance with the standard City street specifications.

3.52 SIDEWALKS

Sidewalks shall be constructed in all subdivisions except that their immediate installation may be temporarily waived by the Planning Commission at the request of the developer, where the Commission feels such a waiver is justified. If a waiver is granted, the developer shall sign a sidewalk covenant and agreement which shall be filed in the Meriden Land Records. This covenant and agreement guarantees that if and when the Planning Commission does require the installation of sidewalks, then said sidewalks will be installed at the expense of the then owner, his heirs or assigns.

Sidewalks shall be constructed in all subdivisions except that the Planning Commission may authorize as an option, payment to a sidewalk fund in lieu of installing the sidewalks, to provide alternative necessary pedestrian safety improvements in the area of the subdivision. The amount of payment to a sidewalk fund will be calculated by the Planning Division at 80% of the average cost per linear foot for construction as set by the Director of Public Works. Such a fund will be set up exclusively for use in construction of new concrete sidewalks, as recommended by the Planning Commission, within each elementary school district in the City in which a contributing subdivision is located. A payment for sidewalk installation must be used by the City within 5 years of approval of the subdivision or the payment will be returned to the property owner developer upon provision of a covenant for future sidewalk installation, as their immediate installation may be temporarily waived by the Planning Commission at the request of the developer, where the commission feels such a waiver is justified. (Amended 4/13/05).

All sidewalks shall be of Portland Cement concrete and shall be a minimum of five (5) feet wide along major and collector streets and four (4) feet wide along local streets. For new streets in very low density residential areas (the R-R District with standard width lots), sidewalks shall be required only on one side of the street. Where other location factors are less important, where sidewalk is only called for on one side of the street, it should be located on the north or east side of the street. (amended 5/11/11)

3.53 UTILITIES

1. Water

All lots shall be served by public water wherever feasible. Water mains shall be minimum 8-inch, Class 52, cement lined pipe conforming to AWWA specifications. Where a subdivision comprises one or more blocks, piping shall be connected to complete loops wherever possible. Where a street ends with a temporary cul-de-sac, water lines shall be brought to the property line. Suitable markers shall be placed and maintained at all curb boxes where no houses exist. The Planning Commission may require the developer to extend water lines where it deems it reasonable and necessary.

2. Sanitary Sewers

All lots shall be served with sanitary sewers, wherever feasible. The Planning Commission may require the developer to extend sanitary sewers if the subdivision is within reasonable distance of an existing sanitary sewer. Where a street ends with a temporary cul-de-sac, sewers shall be extended to the property line.

3. Septic Tanks

Individual septic tanks may be permitted where the Planning Commission considers it not feasible to extend sanitary sewers. Septic tanks shall be of a type approved by the Connecticut Department of Public Health and installed in accordance with the standards of the Connecticut Department of Public Health, and permitted by the Meriden Health Division. A report prepared by the Meriden Health Division indicating that soil conditions and other considerations make all lots satisfactory for septic tanks, shall accompany the application for plan approval. Additional information and percolation tests may be required by the Commission prior to approval of a final subdivision plan.

4. Stormwater and Storm Sewers

Storm water sewers will be required in all subdivisions except for very low density low impact rural streets in which special design standards utilizing alternative methods have been approved by the Commission. Storm sewers shall be minimum Class 4 reinforced Concrete Pipe or smooth interior polyethylene pipe (AASHTO M294). Catch basins should not be located in driveways. Location and design of storm water inlets, catch basins and pipes must be approved by the City Engineer before the Planning Commission grants approval of a subdivision plan. During design, the developer or his engineer shall confer with the City Engineer to determine locations of existing storm water drainage facilities. (amended 6/8/11)

Increased development without proper consideration of stormwater impacts can be a significant source of pollution to the City's water resources. Stormwater flows also need to be managed to prevent flooding. In order to obtain approval of the proposed storm water drainage system, the developer shall furnish supporting data identified in the Development Stormwater Management Standards, including: flow from tributary drains, if any; tributary watershed area; rainfall intensity curve, run off factors and formulas used in computing or determining pipe sizes. (amended 5/11/11)

5. Easements

Utility or drainage easements shall be a minimum of fifteen (15) feet in width and centered on or adjacent to rear or side lot lines wherever possible. Where an open drainage channel or easement passes through a subdivision, lots shall not be bisected unless that portion between the street line and the easement meets minimum area and yard requirements of the Zoning Ordinance.

6. Underground Utility Services

All utilities shall have service lines and connections below ground wherever practical.

7. Trench Excavation and Back Filling

All material, unless specified by the City Engineer, shall be removed and wasted. Before laying the pipe, if the soil on which it is to lie is found to be unstable, the unstable material shall be removed and replaced with suitable compaction material. Where warranted, piling shall be used. A 24-inch layer of sand compacted to optimum density shall be placed over the top of all pipes before any mechanical equipment is used. Granular material approved by the City Engineer shall be used to

fill the remainder of the trench. Said material shall be compacted to a density of 90% in 8-inch layers.

3.54 Lot Grading

Where extensive site grading is contemplated, the Commission may require a Site Grading Plan which shall be drawn to a scale of not more than 1" = 30' and shall show proposed building locations, driveways and existing and proposed contours in sufficient detail to evaluate proposed lot drainage patterns.

3.55 Soil Erosion and Sediment Controls (Amended 5/14/86)

1. Purpose

To minimize soil erosion and sedimentation that occurs as a result of the construction of a subdivision development. It is the intent of this regulation that the soil erosion and sediment control plans shall result in a development that: minimizes erosion and sedimentation during construction; is stabilized and protected from erosion when complete; and does not cause off-site erosion and/or sedimentation.

2. Applicability

A soil erosion and sediment control plan shall be submitted with any application for subdivision development when the disturbed area within the entire subdivision is cumulatively greater than one-half acre. The Commission may require temporary or permanent soil erosion and sediment control measures for development plans disturbing less than one-half acres.

3. Erosion and Sediment Control Plan Approval

A. Approval and Certification

Approval of the subdivision plan showing all improvements, including temporary and permanent soil erosion and sediment control measures, shall constitute certification of the soil erosion and sediment control plan by the Planning Commission. To be eligible for certification, a soil erosion and sediment control plan shall contain proper provisions to adequately control accelerated erosion and sedimentation and reduce the danger from storm water runoff on the proposed site based on the best available technology. Such principles, methods, and practices necessary for certification are found in the Connecticut Guidelines for Soil Erosion and Sediment Controls (1985) as amended. Alternative principles, methods, and practices may be used with the prior approval of the Commission.

B. Said plan shall contain, but not be limited to:

1. A narrative describing the project, the schedule of activities on the land, the application and installation of control measures, design criteria, construction details and the maintenance program for any erosion and sediment control facilities that are installed.
2. A site plan at a scale of one inch equals not more than 50 feet or not less than 20 feet showing:

- a. The location of the proposed development and adjacent properties;
 - b. The existing and proposed topography including soil types, wetlands, watercourses, and water bodies;
 - c. The existing structures on the project site, if any;
 - d. The proposed area alterations including cleared, excavated, filled or graded areas and proposed structures, utilities, roads, and existing, new or altered property lines;
 - e. The location of and design details for all proposed soil erosion and sediment control measures and storm water management facilities;
 - f. The sequence of grading and construction activities;
 - g. The sequence for installation and/or application of soil erosion and sediment control measures;
 - h. The sequence for final stabilization of the development site;
3. Any other information deemed necessary and appropriate by the applicant or requested by the Commission or its designated agent.
 4. Minimum standards
 - a. Plans for soil erosion and sediment control shall be developed in accordance with these regulations using the principles as outlined in Chapters 3 and 4 of the Connecticut Guidelines for Soil Erosion and Sediment Control (1985), as amended. Soil erosion and sediment control plans shall result in a development that minimizes erosion and sedimentation during construction; is stabilized and protected from erosion when completed; and does not cause off-site erosion and/or sedimentation.
 - b. The minimum standards for individual measures are those in the Connecticut Guidelines for Soil Erosion and Sediment Control (1985), as amended. The Commission (or the county Soil and Water Conservation District) may grant exceptions when requested by the applicant if technically sound reasons are presented.
 - c. The appropriate method from Chapter 9 of the Connecticut Guidelines for Soil Erosion and Sediment Control (1985), as amended, shall be used in determining peak flow rates and volumes of runoff unless an alternative method is approved by the Commission.
 5. Issuance or Denial of Certification
 - a. The Meriden Planning Commission or its designated agent shall either certify that the soil erosion and sediment control plan, as filed, complies with the requirements and objectives of these regulations or deny certification when the development proposal does not comply with these regulations. Approval of overall site development plans for a subdivision by the Planning Commission shall constitute certification of the soil erosion and sediment control plan.
 - b. Nothing in these regulations shall be construed as extending the time

limits for the approval of any application under Chapter 124, 124A or 126 of the Connecticut General Statutes.

- c. Prior to certification, any plan submitted to the municipality may be reviewed by the County oil and Water Conservation District which may make recommendations concerning such plan, provided such review shall be completed within thirty days of the receipt of such plan.
- d. The Planning Commission or its designated agent may grant conditional certification for the soil erosion and sediment control plan prior to approval of the overall site development plans for a subdivision, provided that all requirements of this section have been met.

6. Conditions Relating to Soil Erosion and Sediment Control

- a. The estimate cost of measures required to control soil erosion and sedimentation, as specified in the approved or certified plan, may be covered in a performance bond or other assurance acceptance to the Commission.
- b. Site development shall not begin nor shall a building permit be issued until the soil erosion and sediment control plan is approved, the control measures and facilities in the plan are bonded, and those measures scheduled for installation prior to site development are installed and functional.
- c. Planned soil erosion and sediment control measures and facilities shall be installed as scheduled according to the approved plan. All control measures and facilities shall be maintained in effective condition to ensure compliance with the intent of the approved plan.

7. Inspection

- a. Inspection shall be made by the Commission or its designated agent during development to ensure compliance with the approved plan and that control measures and facilities are properly performed or installed and maintained. The Commission may require the permittee to verify through progress reports that soil erosion and sediment control measures and facilities have been performed or installed according to the plan and are being operated and maintained according to the intent of the approved plan. These reports, when required, shall be submitted on a schedule to be determined by the Commission.
- b. The Commission or its agent may require more stringent materials and methods for soil erosion and sediment control than shown on the approved plan when determined to be necessary. All inspection reports shall specify actions taken pursuant to this section.
- c. If the Commission or its agent determines that the requirements of the

approved soil erosion and sediment control plan are not being adhered to, a Cease and Desist order shall be issued.

3.56 Street Signs

The developer shall furnish and install street signs of the type and size specified by the Department of Public Works at each street intersection.

3.57 Street Lights (Amended 5/8/85)

Street lights and supports are to be installed as part of the subdivision approval and after the binder course is laid and when 15% of the lots receive Certificates of Occupancy.

3.58 Fire Hydrants

The developer shall furnish and install fire hydrants and connections at each street intersection, at a distance of not more than 500 feet from each other on all streets over 400 feet in length, and at the end of cul-de-sacs. Hydrants shall be Mueller Centurion Model A423, American-Darling B-62-B, Kennedy Guardian Model 81A or other equal approved by the Department of Public Utilities and the Fire Marshal.

3.59 Street Trees

The developer shall provide and plant street trees within 10 feet of the street lines of not less than 2 inches in diameter and 10 feet in height on both sides of any street to be dedicated to the City. Trees shall be spaced not less than 50 feet apart, subject to variations due to driveways, street corners and walks. In commercial or industrial areas where full sidewalk paving is required from the curb to the right-of-way line, no trees shall be required. Existing trees meeting the above requirements on proposed streets may be substituted for new trees.

3.60 Other Requirements

3.61 Blocks

Blocks shall be at least 200 feet deep and shall not exceed a length of 1,200 feet.

3.62 Lots

Wherever possible, lot lines shall be perpendicular to straight street lines or radial to curving street lines. Lots shall conform in all respects with the provisions of the Zoning Ordinance. All lots shall front on streets shown on the approved final subdivision plan.

3.63 Monuments

Permanent concrete monuments, or brass plugs where rock outcropping exists, of a design approved by the City Engineer shall be set at all block corners, angle points, and points at curves in streets, and at such intermediate points as may be necessary or required by the City Engineer.

3.64 Commercial and Industrial Subdivisions

Special conditions pertaining to Commercial and Industrial Subdivisions shall be considered in preparing subdivision plans for these uses.

3.65 Natural Features

Natural features such as trees, brooks or streams, hilltops and views shall be preserved wherever possible in designing and constructing any subdivision.

3.66 Public Open Spaces (Amended 11/8/06)

Unless otherwise stipulated and approved by vote of the Commission, 15 percent of the total area of a subdivision shall be set aside for open spaces or parks. Such open spaces and parks shall be proposed at the time of plan submission and shall be shown on the final subdivision plan. In determining the need for such land, the Commission shall consider the size of the subdivision, the City's Plan of Conservation and Development, and the presence or absence of any existing open spaces or parks in the neighborhood.

- (1) General Character of Land – Such land shall be of such location, shape, topography and general character as to meet the purpose of these regulations, as determined by the Commission. The Commission staff may refer proposed public parks to the Parks Division and proposed natural open spaces to the Conservation Commission for comment.
- (2) Access and Location – Such land shall abut and have direct public access to a public street except in cases where subdivision access is through a private street or no access will serve the public interest. When a subdivision abuts an existing open space, park or playground, the Commission may require that the lot lines of such land form a continuation of the existing open space, park or playground to provide a single, unified area, or provide for future potential connections to other open spaces or sidewalks. A natural open space may include a rudimentary trail that is consistent with the natural environment. Such trail shall not include engineered design or structures or require significant maintenance by the city unless authorized by the Planning Division although any natural trail should be marked by posts and not be accessible to motorized vehicles.
- (3) Inclusion of wetland/watercourse areas, floodplain or steep slopes – Unless otherwise approved by the Commission, the ratio of wetlands/watercourses, floodplain or steep slopes offered to meet the open space requirement shall be no greater than the ratio of land with such features to land without such features of the entire tract. Steep slopes are defined as slopes greater than 18 %.
- (4) Conservation Easements – Where the purposes of open space preservation can be achieved through permanent restrictions upon property, as distinct from fee ownership thereof, the Commission may approve the use of conservation easements. Such easements shall be in a form approved by the Commission and shall apply to locations which meet the requirements of this section. Beyond required open space, such easements are generally suitable for additional sensitive areas such as steep slopes. Such easement areas should generally be in addition to the minimum lot

requirements of the zoning table with the exception of rear lots that are standard oversized.

- (5) Schedule – Unless otherwise approved by the Commission, provisions for the permanent disposition, reservation and management of such land shall be completed or implemented no later than the time of filing of the approved subdivision plan in the office of the City Clerk. Unless otherwise approved by the Commission, disposition of such land shall be by warrantee deed.
- (6) Provisions for Ownership and Maintenance – Proper provision shall be made by the subdivider and approved by the Commission for the permanent disposition, reservation and management of such land, including but not limited to one or more of the following options:
 - a. Establishment of suitable restrictive covenants on development and use.
 - b. Establishment of a homeowners' association.
 - c. Conveyance to a land trust or similar non-profit conservation organization.
 - d. Conveyance to the City, if accepted by the City Council.

Should the Commission approve land to be accepted, but the Council not accept it, the applicant must provide an equitable alternative to be approved by the Commission. Location of open spaces including conservation easements shall be shown on the appropriate Plan of Conservation and Development map updated periodically.

- (7) Exemptions – The open space requirements of these Regulations shall not apply if there are less than five lots in the subdivision and no adjoining land or land within the subdivision with excess lot acreage that the excess or adjoining area might be further subdivided/configured into five or more total lots combined or when the transfer of all land in a subdivision of less than five parcels is to a parent, child, brother, sister, grandparent, grandchild, aunt, uncle or first cousin for no consideration for their personal use. Any claim to state exemption must be identified at the time of submission of application for notice to public and be maintained; documentation may be required prior to occupancy and for each of the ten years after occupancy to clearly establish that it meets the provisions and intent of Connecticut General Statutes.

3.67 Private Easements and Reserved Land

No privately owned easements or reserved parcels of land which control access to land dedicated to public use, or which may be so dedicated, will be permitted in any subdivision.

4.10 Approval by Planning Commission

No lot lying within the corporate limits of the City or Meriden and resulting from the subdivision of any tract or parcel of land or from any resubdivision shall be conveyed or used for building development without the prior approval of a final subdivision plan by the Planning Commission. Development for exclusively agricultural purposes shall be exempt from the provisions contained herein. The Commission may authorize

its Chairman and Secretary to approve any subdivision not involving the creation of new streets or a change in existing streets where all lots will be served with public water and sanitary sewers. Such approval shall have the same effect as if granted by the Commission. Approvals granted under this authority shall be reported by the Secretary to the Commission at its next regular meeting. Any subdivision of land in violation of Subdivision Regulations previously adopted on October 16, 1950 shall not be considered a legal subdivision due to the revision and adoption of these revised regulations.

4.21 Submission Data (Amended 12/14/05)

A submission for subdivision or resubdivision plan approval shall include an application and all required documents, maps, data and fees and be made at least fifteen (15) days prior to a regularly scheduled meeting of the Planning Commission. The application fee shall be ONE HUNDRED DOLLARS (\$100.00) AND FIFTY DOLLARS (\$50.00) per lot. (Amended 12/14/05)

For final subdivision and resubdivision applications, a separate check for Twenty Dollars (\$20.00) made payable to the City Clerk, City of Meriden, shall be submitted to cover the cost of recording the plan after approval in the Land Records.

The submission date shall be the first regularly scheduled meeting of the Commission at which the application and its supporting documents are accepted as being complete.

A digital boundary and topographic A-2 survey showing all existing conditions within the subdivision and abutting the site, and a digital copy of the proposed subdivision map, both meeting written technical standards and procedures, must be submitted with any new application at the specified submittal deadline. All digital surveys must be submitted to the Meriden Planning Commission staff (Planning Division) and the Meriden Engineering Division in computer compatible media (such as CD or e-mail) meeting written technical standards and procedures available at the Planning Division. The number of paper surveys to be submitted to the Planning Division submission is reduced to two (2).

A digital copy of the final approved subdivision map must be submitted to the Planning Division prior to filing the map with the City Clerk. Any waiver of technical standards due to hardship must be requested in writing and approved by the Planning Division or the Planning Commission. Surveyors and engineers on the City's mailing list will be notified of updates to technical standards at least 30 days in advance. If the entire set of proposed and final development plans is correctly submitted in electronic form, the Planning Division will authorize a reduction in the number of paper copies required.

4.22 Public Hearing

The Commission may hold a public hearing regarding any subdivision proposal if, in its judgment, the specific circumstances require such action. No plan of resubdivision shall be acted upon by the Commission without a public hearing. Notice of the public hearing shall be given at least twice at intervals of not less than two days, the first not more than fifteen days, nor less than ten days, and the last not less than two days prior to the date of

such hearing by publication in a newspaper of general circulation in the city and by sending a copy of the notice by registered or certified mail to the applicant. The public hearing shall be conducted in accordance with the bylaws of the Commission.

4.23 DELETED

4.24 DELETED

4.31 SUBDIVISION PLAN DATA (amended 10/13/10)

The following information and data will be required with an application for subdivision plan approval:

Plan Data:

1. Six (6) copies of a map or plan drawn to a scale of not less than 1" = 20' on a sheet measuring 12" x 18" and not more than 1" = 50' on a 24" x 36" sheet(s) showing:

A. Topographic and other data showing existing conditions as follows:

- 1) Property boundary lines showing all dimensions, angles, bearings and distances shown as determined by an accurate field survey (A-2) with an error of not more than one (1) to five thousand (10,000). Names of abutting property owners shall be shown on the plan.
- 2) Existing and proposed easements including location, width and purpose of each easement.
- 3) Existing streets adjacent to the land to be subdivided and proposed streets including:
 - a) Name, location and right-of-way width.
 - b) Type and width of pavement surface.
 - c) Walks, curbs and gutters.
- 4) Utilities on and adjacent to the land to be subdivided including:
 - a) Location, size and invert level of catch basins and storm drains.
 - b) Manholes and lines of storm sewers.
 - c) Location and size of water mains.
 - d) Location and size of gas lines.
 - e) Fire Hydrants
 - f) Electric and telephone poles.
 - g) Location, size and elevations of sanitary sewer manholes and sanitary sewer lines.
 - h) Street lights.
- 5) Ground elevations based on City of Meriden datum showing contours with an interval of not more than two

- (2) feet.
- 6) Subsurface conditions including preliminary percolation tests if individual septic tanks are proposed.
 - 7) Other conditions including existing watercourses, wooded areas, existing buildings, rock outcrop, retaining walls and fences and existing cuts or areas of fill.
 - 8) Title and certificate data in the lower right-hand corner including:
 - a) Name of developer
 - b) Present owner if under option to developer
 - c) Title of proposed subdivision
 - d) Acreage of tract
 - e) North arrow
 - f) Scale of plan
 - g) Signature of developer
 - h) Signature and certification of registered Civil Engineer or Registered Land Surveyor and date of land survey, as required by law.
 - 9) Where extensive site work is contemplated, show by contours of 2-foot intervals, topography both as it exists and as it is proposed to be, and the effect of intended site work on adjacent property.
2. Proposed street profiles showing existing ground surface and proposed street grades prepared on sheets meeting requirements of the City Engineer.
 3. A typical cross-section of proposed streets and sidewalks.
 4. Profiles of existing streams and watercourses and proposed drainage improvements for a proposed subdivision. The engineer preparing the subdivision plan shall provide computations verifying that the storm water drainage system is adequate to accommodate a ten (10) year storm, along with other supporting data identified in the Development Stormwater Management Standards.
 5. Sewage Disposal Report of the City Health Department where individual septic tanks are proposed.
 6. Location of proposed open spaces to be dedicated to the City of Meriden.
 7. Proposed house numbers, as approved by the City Engineer.
 8. Proposed lot lies and approximate square footage of each lot to the nearest foot. Lot numbers as approved by the City Assessor are to be shown.
 9. Proposed location and sizes of trees, including existing trees over two (2) inches in diameter and ten (10) feet tall which are to be substituted for new trees.
 10. Locations of proposed street lights.

11. Locations of proposed fire hydrants.
12. Locations of proposed monuments.
13. Building setback lines.
14. Draft of protective covenants if any are to become part of deeds transferring land or land and improvements, which may include buildings.
15. A Soil Erosion and Sediment Control Plan including, but not limited to:
 - A. A narrative describing the project, the schedule of activities on the land, the application and installation of control measures, design criteria, construction details and maintenance program for any erosion and sediment control facilities that are installed.
 - B. A site plan at a scale of one inch equals not more than 20 feet or not less than 50 feet showing:
 - 1) The location of the proposed development and adjacent properties;
 - 2) The existing and proposed topography including soil types, wetlands, watercourses, and water bodies;
 - 3) The existing structures on the project site, if any;
 - 4) The proposed area alterations including cleared, excavated, filled, or graded areas and proposed structures, utilities, roads, and existing, new, or altered property lines;
 - 5) The location of and design details for all proposed soil erosion and sediment control measures and storm water management facilities;
 - 6) The sequence of grading and construction activities;
 - 7) The sequence for installation and/or application of soil erosion and sediment control measures;
 - 8) The sequence for final stabilization of the development site;
(Amended 5/14/86)
16. A key map showing the location of the proposed subdivision at a scale of 1" = 1,000' and measuring at least 3" x 3".
17. Final Subdivision Plan:
 1. An original and five (5) copies of a map or plan drawn to a scale-equal to plan data on a sheet(s) of a size not more than 12" x 18", 18" x 24" or of 24" x 36" showing:
 - a. Property boundary lines of the proposed subdivision.
 - b. The subdivision shall be tied into the CT State Coordinate System NAD83 and the major perimeter corners of the subdivision shall be monumented. These markers shall be shown with the correct coordinate monuments that intersect with existing City streets. The location of permanent monuments at all points

of curvature shall be shown.

- c. Proposed lot, block and section numbers as approved by the City Assessor.
- d. Building address numbers as approved by the City Engineer.
- e. Proposed street showing:
 - 1. Proposed street lines and names.
 - 2. Proposed street design including lengths, deflections angles, radii, tangent distances or curves and other necessary data to the nearest hundredth of a foot.
- f. Proposed lots including dimensions, angles and bearings, lines and total lot areas to the nearest square foot.
- g. Location, size and purpose of proposed easements.
- h. Location and size of proposed public open space.
- i. Building setback lines.
- j. Names of abutting property owners.
- k. Certification that applicant is land owner or interest holder.
 - 1. Title block including proposed subdivision name, name of developer, scale of plan, north arrow, date of preparation, submission date, name and license number of land surveyor or Civil Engineer, as required by law, and space for approval data to be supplied by the Planning Commission.
 - 2. Agreements showing the manner in which spaces, other than lots, now dedicated to public use are to be maintained.
 - 3. Proposed legal agreement between the developer and the City of Meriden transferring the open space and easements to the City.
 - 4. Agreement to post a bond assuring that necessary improvements will be completed.

4.32 PLANNING COMMISSION ACTION ON FINAL PLAN

The Commission shall act on the final plan within sixty-five (65) days after the submission date which shall be the first regularly scheduled meeting of the Commission at which the application is presented for consideration by the Commission. The Commission may approve, modify and approve or disapprove the plan. Notice of the decision of the Commission shall be communicated to the applicant in writing. In the case of an approval, the plan shall be endorsed by the Chairman or Secretary and a copy forwarded to the applicant. Notice of the action of the Commission shall be published in a newspaper having a substantial circulation in the City within fifteen (15) days after

such decision has been rendered. The grounds for its action shall be stated in the records of the Commission.

- 4.33 At the time of the approval of a final subdivision plan, the Commission shall determine the cost of completing any proposed or required street grading, roadway construction, paving or surfacing, street tree planting, installation of utilities, monuments, bridges, culverts, storm drainage, and all other improvements included in the approved subdivision plans or described in any condition to the subdivision's approval, hereinafter referred to collectively as "subdivision improvement". (Amended 7/8/81)
- 4.34 Prior to the filing and recording of an approved final subdivision plan, the applicant shall cause to be filed with the Commission a sidewalk covenant, if any, together with all deeds to land and streets to be dedicated to public uses as may be required.
- 4.35 At any time twenty days after the Commission's approval of the subdivision and prior to the filing of the final subdivision plan, the applicant, owner or contractor may commence construction of the "subdivision improvements" upon notification to the Planning Director and City Engineer.

All erosion and sedimentation control measures, unless covered by a bond of the Meriden Inland Wetlands and Watercourse Commission shall be bonded before any work on such subdivision shall begin.

The estimated costs of measures required to control soil erosion and sedimentation, as specified in the certified plan, shall be covered in a performance bond or other assurances acceptable to the Commission in accordance with the provisions specified under Section 4.36 of these regulations. (Amended 5/14/86)

- 4.36 Prior to filing of an approved subdivision plan the Commission shall determine the amount of bond or assessment deemed sufficient by the Commission to assure the completion of the subdivision improvements which have not at that time been completed and approved by the Planning Commission. At such time the applicant, owner or contractor shall post a performance bond or bonds made payable to the City of Meriden with security in the form of cash, surety or other collateral acceptable to the Commission in the amount so determined, or in the alternative the applicant, owner or contractor shall deliver to the Planning Division for recording simultaneously with the filing of said subdivision map a Certificate of Assessment which shall be signed by the owner of the land and shall set forth the following information:
1. The name of the applicant and owner of the property.
 2. The name of the subdivision.
 3. The title of the map or maps to be filed in connection with such subdivision and the lot numbers designated on such map or maps.
 4. The date of the Planning Commission approval.
 5. The amount and nature of the subdivision improvements, the gross amount of the assessment, and the assessment for each vacant lot with unoccupied structures. The

Assessment procedure shall not be applicable to lots with occupied structures.
(4/12/09)

6. Such Certificate of Assessment shall also contain the following provisions:
 - a. Creation of Assessment. The undersigned owner of the property described in paragraph 3 above agrees to the imposition of an assessment in favor of the City of Meriden in the amount set forth in paragraph 5 above, which assessment shall have the same force and effect of one created pursuant to Section 7-254(b) of the Connecticut General Statutes.
 - b. Collection of Assessment. The owner further agrees that the Planning Commission of the City of Meriden, upon the failure of the applicant or owner to complete the subdivision improvements within the time limit provided for in Section 8-26C of Connecticut General Statutes, may take any action or actions as are required by said Statute including the completion of the subdivision improvements and may recover the cost of such completion and any other expenses incurred by the Commission by the collection of the assessment provided for herein all such collection action to be in accordance with the provisions of Section 7-254(b) of the Connecticut General Statutes.
 - c. Reduction and Release of Assessment upon Substitution of Bond.
Upon the completion and approval by the Planning Commission of portions of the subdivision improvements the assessments per lot as set forth in paragraph 5 hereof shall be reduced pro rata on those specific lots requested by the owner or applicant and upon the providing of a cash bond in accordance with the subdivision regulations of the City of Meriden for the amount of assessment remaining on any such lot or lots in the subdivision the Commission Chairman or Secretary shall execute and deliver to the owner a partial release of this Certificate of Assessment which shall set forth the lot or lots being released, which release shall be recorded in the Meriden Land Records prior to occupancy of the lot. (Amended 4/12/06)
 - d. Full Release of Assessment. Upon the posting of a bond with the Commission sufficient to cover the cost of any subdivision improvements which have not been completed and approved by the Commission or upon the approval by the Commission of all subdivision improvements or if the time limit set forth in Section 8-26C of the Connecticut General Statutes shall have expired without any lot in the subdivision having been transferred, the Planning Commission shall deliver to the owner a full release of this Certificate of Assessment signed by the Chairman of the Planning Commission for recording in the Meriden Land Records. Provided however that if subdivision improvements have been commenced by the owners and if the Planning Commission determines that remedial work is required to complete improvements or to restore the site to a safe and environmentally sound condition, then the Planning Commission may retain the Certificate of Assessment on the property until remedial work is complete or may at its discretion call the bond and foreclose the Assessment. (Amended 4/12/06)

- 4.37 There shall be no requirement for the bonding of or assessment for any improvements at any time which have been completed by the applicant, owner or contractor and accepted by the Commission. All performance bonds and deeds shall be certified as to form by the Corporation Counsel. Said deeds shall be placed in escrow with the Corporation Counsel of the City of Meriden and shall be delivered to the City Clerk for recording in the land records upon acceptance of said streets by the City Council and return of the performance bond or bonds to the applicant, owner or contractor or other principal. Approval of final subdivision plan by the Commission shall not in itself constitute an acceptance by the City of any street, park or other public space.
- 4.38 Definitions
1. The term "lot" as used in Title # Sections 4.33 – 4.37 shall include each single detached active adult housing unit which is declared or to be declared as a unit pursuant to the Connecticut Common Interest Ownership Act (CIOA).
 2. The term Unit shall have the same meaning as set forth in CIOA and specifically Section 47-202 of the Connecticut General Statutes.
- 4.39 The Certificate of Assessment described in Section 4.36 of the Subdivision Regulations may be used in Subdivisions, Residential Cluster Developments (Zoning Ordinance Sections 213-263 prior to Sept. 15, 2005) and Active Adult Cluster Development (Zoning Ordinance Sections 213-26.3 et seq.)

5.00 RECORDING, APPEALS, REPEAL, SEVERABILITY

5.10 RECORDING OF FINAL PLAN

The approved final plan endorsed by the Chairman or Secretary shall be filed or recorded by the Planning Director in the office of the City Clerk within ninety (90) days following the approval by the Planning Commission.

Any plan not so filed or recorded within ninety (90) days following its approval by the Commission or within ninety (90) days of the date upon which such plan is taken as approved by reason of the failure of the Commission to act, shall become null and void, except that the Commission may extend the time for such filing for two additional Periods of ninety (90) days, upon written request of the applicant.

No such plan shall be filed or recorded by the City Clerk or other officer authorized to file or record plans until the Chairman or Secretary of the Commission endorses, and the filing or recording of a subdivision plan without such approval shall be void.

No final plan shall be recorded until all necessary deeds and if required, a performance bond, as specified by the Commission, for the installation of utilities, street construction or other required improvements, have been filed with the Planning Division.

5.20 APPEALS

Any person aggrieved by an official action of the Planning Commission may appeal therefrom within fifteen (15) days from the date when notice of such decision was

published in a newspaper of general circulation as required in these regulations, of such official action to the Court of Common Pleas for New Haven County.

5.30 REPEAL

Subdivision Regulations adopted October 16, 1950, as amended to date, are hereby wholly repealed.

5.40 SEVERABILITY

Should any section or provision of type regulations contained herein, or as amended hereafter, be declared by a court of competent jurisdiction to be invalid, such decision shall not affect validity of the regulations as a whole or any part thereof other than the part so declared to be invalid.

5.50 EFFECTIVE DATE

These regulations are effective immediately.

TITLE III

MAPPING REQUIREMENTS

MAPPING REQUIREMENTS

(amended 5/11/11)

STREET LAYOUT

1. Street lines on existing city streets shall be provided by the City Engineer.
2. Where lines and grades are established on a street and a proposed street intersects it, road station 0 + 0 shall be at the center line of the approved street. Each street proposed shall have station 0 + 0 at the center line of the preceding intersecting street.
3. Curb lines shall be shown 10 feet inward from the parallel to street lines and shall be carefully laid out to match gutter lines on existing streets.

FINAL PLAN

1. An approved plan to be recorded shall be prepared on mylar to the same scale as final submittal with a title block in the lower right hand corner.
2. The street profile shall be drawn on sheets no more than 36" in length, conforming to specifications of the City Engineering Division (hereafter "Engineering Division"), to a scale of 1" = 50' horizontal, and 1" = 5' vertical. The profile shall show the existing ground surface along the center line of the proposed street by a dashed line. The proposed finished grade shall be shown by a solid line. The profile at street intersections shall show the grade of each curb return. The profile shall show the grades of all sanitary sewers and storm water sewers.

SURVEYS

All survey work shall be performed to an accuracy of 1/10,000. The final subdivision plan shall be prepared only after a complete survey of the proposed subdivision has been completed. The subdivision shall be tied into the CT State Coordinate System NAD83 and the major perimeter corners of the subdivision shall be monumented to correspond with this coordinate system. The markers shall be shown with the correct coordinate values. Coordinate values shall be shown on all monuments that are placed at corners which intersect with existing City streets.

UTILITY LOCATIONS

Sanitary sewers, water lines, storm water sewers, gas or other utility lines, and power and telephone poles shall be shown on profile maps and the plan. In addition to indicating manholes, catch basins, water gate valves and fire hydrants, the grade level of catch basins and elevations of fire hydrants shall be indicated. Storm water shall not flow onto any existing City street. Where storm water drains from a property to a catch basin or drainage pipe located on a State Highway, approval of the State Highway Department shall be obtained before application for final plan approval is submitted to the Planning Commission.

LOT LAYOUT

Lots fronting on curves shall show the arc length, cord length and central angle for each subtended length. Where a lot line is the center or edge of a brook, the distance shall be shown accurately.

AS-BUILT MAPPING

As-built plans shall be submitted to the Engineering Division for review and approval on ALL projects which will be served by any, or all, of the following: new City water mains, sanitary sewer mains, storm sewer systems, and for new City streets. Individual plans will be provided for the sanitary sewer main and the water main. The storm drainage and street line information together will be provided on a separate plan.

SANITARY SEWER MAIN

The as-built sanitary sewer plan shall be drawn on mylar, 4 mil, double matte, sheet size 24" x 36" to a scale of 1" = 50 feet, (horizontal), and 1" = 5", (vertical). The map shall show the as-built locations of all manholes and wyes. Plan and profile views will be provided to include the following information:

1. As-built surface profile.
2. Top-of-rock profile, if applicable.
3. Type, size and rates of grade of pipe.
4. Stations, top of frame and invert elevations of all manholes.
5. Stations of wyes in standard City of Meriden form.
6. All houses and buildings shall be accurately shown on the map including the location of the sewer service to the structure.
7. House number, lot number, property owner's name and property lines shall be shown for all lots.
8. A title block shall be provided in the lower right-hand corner of the map including the project name, date, address, engineer's name, horizontal scale and vertical scale.
9. Street line and curb line for both sides of the roadway
10. The size and location of all private and public easements. Note ownership and type of the easement. The deed reference, volume and page number from the Meriden Land Records must also be shown.
11. Where a cluttered area of utilities exists, a blown-up section of this area must be provided at an appropriate scale to provide a more accurate and detailed picture.
12. The plan must be signed and sealed by a Professional Engineer or Land Surveyor licensed in the State of Connecticut.
13. Submit an electronic copy to the Engineering Division using the Connecticut State Plane Coordinate System, NAD83 (unless State law specifically precludes this).

WATER MAINS

As-built water plan shall be drawn on a mylar, 4 mil, double matte, sheet size 24" x 36" to a scale of 1" = 50 feet, (horizontal), and 1" = 5 feet, (vertical). The following information shall be shown on the plan:

1. Street lines, curb line/edge of pavement and lot lines must be shown and labeled.
2. Water main size, location and date of installation.
3. Service lines by station and location of curb boxes.
4. Size and location of mainline valves, reducers, increasers, tees, bends and fire hydrants.
5. Horizontal distance of the water main from the curb/edge of pavement.
6. Ties to gate valves and curb boxes from a minimum of two points. The ties must come off an existing building corner and in clued the horizontal distance in linear feet. Ties to other fixed objects will be considered if no houses exist within close proximity.
7. All houses and buildings must be accurately shown on the map including the drive connection.
8. A title block shall be provided in the lower right-hand corner of the plan including the project name, date, address, engineer's name and horizontal scale.
9. The size and location of all private and public easements. Note the ownership and type of the easement. The deed reference from the Meriden Land Records must also be shown.
10. Where a cluttered area of utilities exists, a blown up section of this area must be provided at an appropriate scale to provide a more accurate and detailed picture.
11. The plan must be signed and sealed by a Professional Engineer or Land Surveyor, licensed in the State of Connecticut.
12. Submit an electronic copy to the Engineering Division using the Connecticut State Plane Coordinate System, NAD83 (unless State law specifically precludes this).

STORM DRAINAGE AND STREETLINE INFORMATION

1. The as-built surface profile.
2. Top of rock profile, if applicable.
3. Type, size and rates of grade of pipe.
4. Stations, top of frame and invert elevations for all catch basins and manholes.
5. Location and invert elevation for pipe inlets/outlets, (flared end sections, headwalls, endwalls).
6. Stormwater detention basin, (surface and sub-surface), final grading, low-flow channel, outlet control structure, and emergency overflow location. Please note that a statement by the Land Surveyor will be required stating that the basin has been constructed in substantial conformance to the design plan.
7. All houses and buildings will be accurately shown on the map including the location of roof leader and footing drain connections to the drainage system.
8. House number, lot number, property owner's name and property lines shall be shown for all lots.
9. A title block shall be provided in the lower right-hand corner including the project name, date, address, engineer's name, address, and phone number, horizontal scale and vertical scale.
10. The size and location of all private and public easements. Note the ownership, type of the easement, and volume and page number from filing on the Meriden Land Records.

11. Where a cluttered area or utilities exists, a blown up section of this area must be provided at an appropriate scale to provide a more accurate and detailed picture.
12. The streetline information shall include all bearings and distances, curve data, existing and newly set monuments and iron pins.
13. The plan must be signed and sealed by a Professional Engineer or Land Surveyor, licensed in the State of Connecticut.
14. Submit an electronic copy to the Engineering Division using the Connecticut State Plane Coordinate System, NAD83 (unless State law specifically precludes this).

TITLE IV

STREET CONSTRUCTION
SPECIFICATIONS

PURPOSE

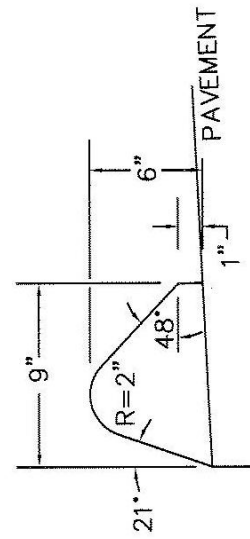
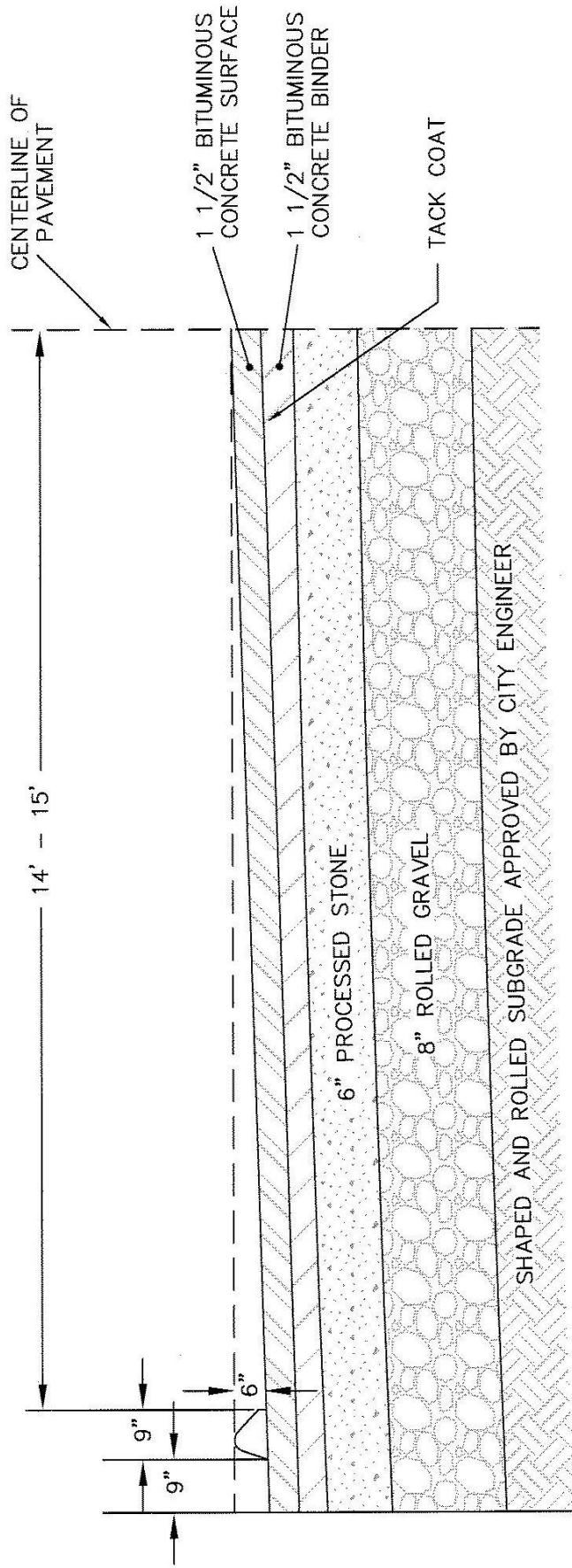
Street Construction Specifications and other development standards have been set forth by the Planning Commission, upon recommendation of the Public Works Department following a public hearing, within the powers granted by and consistent with State Statutes, the City Code, City Zoning, and Subdivision regulations in the interest of public safety and convenience, the operation and protection of maintainable public works infrastructure, and state and federal environmental protection laws.

STREET TYPE I - MAJOR STREET

Specifications to be developed for each such street on an individual basis predicated on pavement width, anticipated traffic volumes, location, proximity to commercial or industrial areas and other relevant information.

STREET TYPE II - COLLECTOR AND MINOR RESIDENTIAL STREETS

SUBGRADE	-	Shaped and Rolled
BASE	-	8" Rolled Gravel or Processed Stone
	-	6" Processed Stone with a tack coat
BINDER	-	1-1/2" Bituminous Concrete
FINISHED SURFACE	-	1-1/2" Bituminous Concrete
CURB	-	Portland Cement-Concrete or Machine Formed Bituminous Concrete
SIDEWALK	-	Portland Cement-Concrete



CROSS SECTION STREET TYPE 2 AND 3

CURBING DETAIL

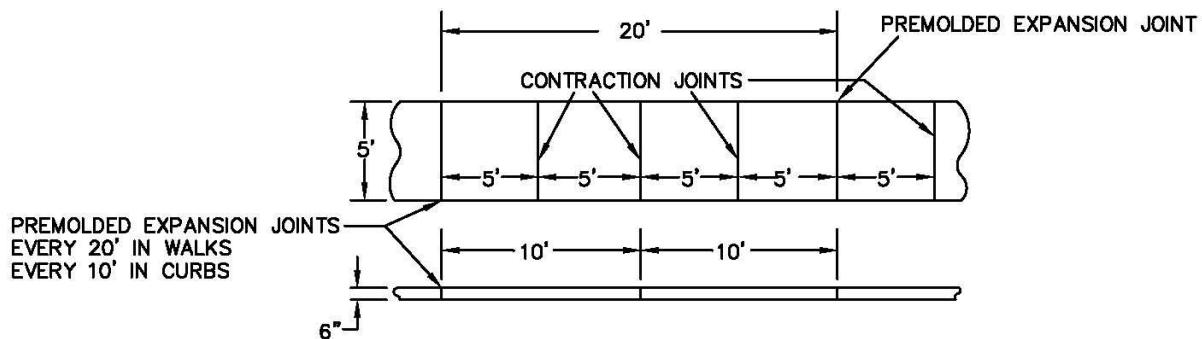
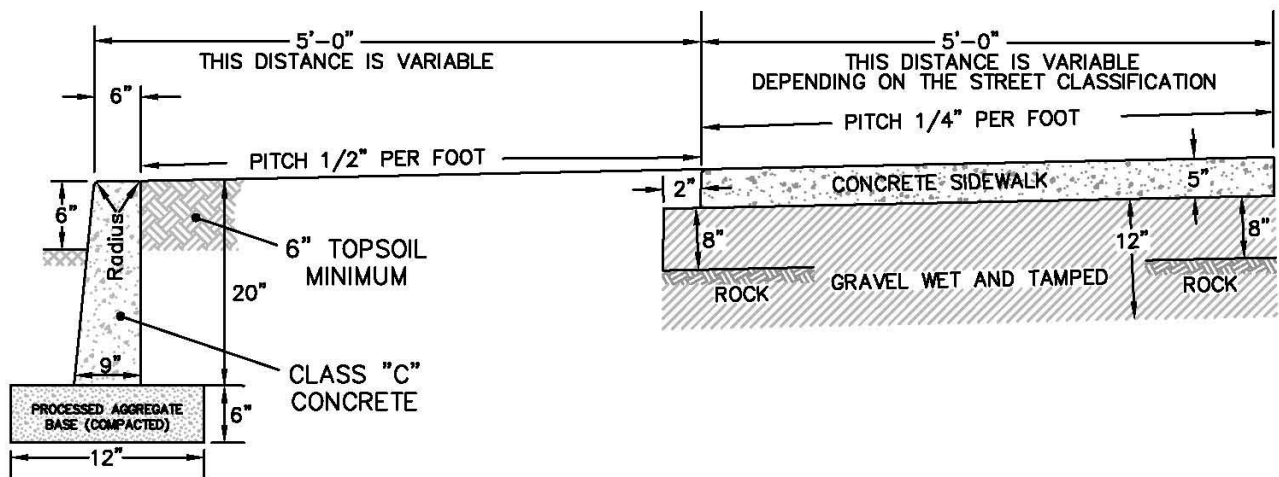
CONCRETE CURBING AND WALK

CURBING

CONCRETE CURBING WILL BE INSTALLED IN ACCORDANCE WITH STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FORM 816, SECTION 8.11 EXCLUDING PARAGRAPHS 8.11.04 AND 8.11.05 FOR MEASUREMENT AND PAYMENT.

CONCRETE WALKS

CONCRETE WALKS WILL BE INSTALLED IN ACCORDANCE WITH STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FORM 816, SECTION 9.21 EXCLUDING PARAGRAPHS 9.21.04 AND 9.21.05 FOR MEASUREMENT AND PAYMENT.



PLAN OF WALK AND CURB

CONSTRUCTION STANDARDS (amended 5/11/11)

Street infrastructure improvements shall adhere to and be guided by the standards hereinafter set forth and shown in the City Standard Details.

1. FORMATION OF SUBGRADE - SHAPED AND ROLLED

Formation of the subgrade involves shaping and compacting the existing ground to the grade and cross-slope shown on the design drawings. All soft and yielding material, and other portions of the subgrade which will not compact readily when rolled, vibrated or tamped, shall be removed, as directed, and all loose rock or boulders, over 5 inches in size, found in the earth shall be removed or broken off to a depth of not less than one foot below the subgrade. All holes or depressions made by the removal of material, as described, shall be filled with suitable material and the whole surface compacted uniformly by rolling the entire area with an approved power roller having a minimum compression of 300 pounds per linear inch of contact width of tread on the rear wheel or wheels and weighing not less than 10 tons or with vibratory roller. Vibratory units shall have a static weight of not less than 4 tons. The amount of compactive effort shall be no less than six (6) complete passes of the compacting equipment being used. When more than one compacting unit is used, the unit exerting the greatest compactive effort shall be used to make the initial compaction.

Compaction shall be continued until the entire subgrade is uniformly and thoroughly compacted to the required minimum density, true to lines and grade approved. After each layer has been placed as specified above, its entire area shall be compacted with equipment specifically manufactured for cutting or filling. In fill areas, soil shall be spread uniformly in courses not to exceed 12 inches in thickness after final compaction. The sole use of hauling and spreading equipment shall not be considered as a substitute for compacting equipment.

When, in the opinion of the City Engineer, areas of the sub-grade have become impervious due to a concentration of fine materials and present a hard, smooth and dense surface, such area shall be lightly scarified, immediately before paving, to correct the impervious condition and then recompact. It may become necessary to remove such fine materials and to replace them with suitable material prior to recompact.

Protection of Subgrade

All ditches and drains shall be completed sufficiently to drain the street effectively before the placing of any construction materials shall be permitted. In handling materials, tools, equipment, etc., the contractor shall protect the subgrade from damage by exercising such precautions as the City Engineer may deem necessary. At all times, the subgrade surface shall be kept in such condition that it will drain readily and correctly. The subgrade shall be checked and approved before any foundation or surfacing material is placed thereon.

2. ROLLED GRAVEL OR CRUSHED STONE SUBBASE

Placement of the gravel subbase shall not begin until the formation of subgrade is complete and the developer or his representative obtains final, written approval from the testing laboratory and the Engineering Division (see the Road Construction Testing Requirements subsection within these standards).

The subbase shall consist of a clean soil-aggregate mixture of bank or crushed gravel, crusher run stone, reclaimed miscellaneous aggregate containing no more than 2% by weight

of asphalt cement or any combinations thereof, placed where shown on the plans or where directed by the Engineer.

All materials for this work shall conform to the requirements of Connecticut Department of Transportation (ConnDOT) Form 816, "*Standard Specifications for Roads, Bridges, and Incidental Construction*", including addenda's, Section 2.12 and Articles M.02.02 and M.02.06. Grading "B" shall be used.

Gravel or stone shall be spread uniformly upon the prepared subgrade to such depth that this course will be the specified depth after final compaction.

After each course has been placed as specified above, its entire area shall be compacted with equipment specifically manufactured for that purpose. The sole use of hauling and spreading equipment shall not be considered as a substitute for compacting equipment. Compaction shall be continued until the entire course is uniformly compacted to the required minimum density.

All areas of segregated coarse or fine material shall be removed and replaced with well graded material. If, after the material has been spread and shaped, it is found at the street or through testing that the subbase does not meet standards, specifically located and detailed corrections must be proposed by the Developer's Engineer and shall be applied as directed by the City Engineer.

3. BASE - PROCESSED AGGREGATE

Placement of the processed aggregate base shall not begin until the gravel subbase course is complete and the developer or his representative obtains final, written approval from the testing laboratory and the Engineering Division.

The processed aggregate base shall consist of a clean soil-aggregate mixture of crushed gravel, crusher run stone, reclaimed miscellaneous aggregate containing no more than 2% by weight of asphalt cement or any combinations thereof, placed where shown on the plans or where directed by the City Engineer.

All materials for this work shall conform to the requirements of ConnDOT Form 816, Section 3.02 and Articles M.02.03 and M.02.06. Grading "C" shall be used.

Processed stone shall be spread uniformly upon the prepared subbase directly from approved spreader or stone boxes to such depths that this course will have a minimum depth of 4-6 inches after final compaction, unless otherwise ordered.

Gravel or reclaimed miscellaneous aggregate shall be spread upon the prepared subbase to such depth that this course will be of the specified depth after final compaction. After the stone is spread, it shall then be shaped and thoroughly compacted with a power roller weighing not less than 10 tons or an equivalent vibratory roller or compactor. All areas of segregated coarse or fine material shall be corrected or removed and replaced with well-graded material, as directed by the Developer's Engineer. The compacting shall be continued until all voids are filled and the course is compacted satisfactorily to a uniform surface.

All aggregate shall be completely compacted and bound at the end of each day's work.

If it is found at the street or through testing that the processed aggregate base does not meet standards, specifically located and detailed corrections must be proposed by the Developer's Engineer and be applied as directed by the City Engineer.

4. PRIME COAT

Immediately after completion of rolling the processed stone base, a prime coat of RC-2 asphaltic cement shall be applied to the surface at a rate of 3/4 gallon per square yard of surface area.

5. BINDER - BITUMINOUS CONCRETE PAVEMENT

Placement of bituminous concrete pavement binder shall not begin until the processed aggregate base course is complete and the developer or his representative obtains final, written approval from the testing laboratory and the Engineering Division.

The binder pavement shall be constructed of a minimum 1½" lift of Class I bituminous concrete conforming to ConnDOT Form 816 mix requirements for Class I Bituminous Concrete.

A. Paving Equipment

Paving equipment shall be of the self-powered type with an adapter to provide guidance of the screeding action. The screed or strike-off member shall be adjustable to the shape of the cross section of the finished pavement. Some method shall be provided for the tilting of the screed while in operation to secure the proper "drag" and to provide the compressive action necessary to prevent "pulling" and to result in the uniformly screeded surface required. The machine shall have a sufficient number of driving wheels so that there will be no undue amount of slippage. Whenever the design of the equipment and plan of operation are such that the driving wheels travel on the finished surface of a completed pavement, said wheels shall be equipped with rubber tires or other means to protect the finished surface.

B. Placing of Mixture

Immediately before placing the mixture, the area to be surfaced shall be cleaned by brooming or by other means acceptable to the City Engineer. Unless specifically authorized by the City Engineer, the mixture shall be laid only when the surface is free of frost, dried to the satisfaction of the City Engineer and when the weather is not foggy or rainy. These operations shall be carried out only when the temperature is not less than 32° F. Upon arrival, the mixture shall be dumped into the approved mechanical spreader and immediately spread and struck off to the full width required and to such appropriate loose depth for each successive course that when the work is completed the designed depth per square yard will be obtained. Each course shall be struck off by the mechanical equipment. For use in striking off the bottom course, the machine shall be equipped with easily adjustable strike-off plates.

In order to obtain tight and well-compacted longitudinal joints, the sequence of the bituminous concrete placing operations for all courses laid shall be subject to the control of the City Engineer.

Before any rolling is started, the finished surface struck by the machine shall be checked, any inequalities adjusted, all "drippings", i.e., fat, sandy accumulations from the screed and all fat spots from any source, shall be removed and replaced by satisfactory material.

Any deviation from standard crown of section shall be immediately remedied by placing additional material or removing surplus.

Contact surfaces of curbs, gutters, manholes, etc., shall be painted with a thin uniform coat of hot asphalt cement, or asphalt cement dissolved in naphtha, just before the material is placed against them. Where the bituminous material is spread on a concrete or an old bituminous base, a uniform coat of asphalt shall be spread about one foot wide along each edge of the pavement to prevent water entering between the new pavement and the base. On steep grades, the City Engineer may order a very light web-like coating of hot asphalt paint applied to the old pavement. Care must be taken not to apply too heavy a coating or large blobs of asphalt paint.

The refueling of equipment in such a position that fuel might be applied on bituminous concrete mixtures already placed, or to be placed, is prohibited. Kerosene, gasoline or fuel oil for use in cleaning mechanical equipment or hand tools shall be stored well clear of areas paved or to be paved. Before any such equipment and tools are cleaned, they shall be moved off the area paved or to be paved, and they shall not be returned for use until after they have been allowed to dry.

C. Compaction

After spreading and when sufficient set has developed to permit proper compaction, each course shall be compacted by rolling consisting of initial or breakdown rolling, intermediate rolling and final or finish rolling. Initial rolling shall be performed with power driven steel wheel, tandem or three-wheel rollers weighing not less than ten tons. Intermediate rolling shall be done with a self-propelled pneumatic tire roller equipped with wide-tread compaction tires capable of exerting an average contact pressure from 60 to 90 pounds per square inch uniformly over the surface, adjusting ballast and tire inflation pressure as required. The contractor shall furnish evidence regarding tire size pressure and loading to confirm that the proper contact pressure is being developed and that the loading and contact pressure are uniform for all wheels. Final rolling shall be done by a power driven steel wheel tandem roller weighing not less than ten tons.

Rolling shall begin at the sides and progress toward the center, parallel to the center line of the roadway, uniformly lapping at least one-half the width of the compacting wheel of the roller. Alternate trips of the roller shall be terminated in stops at least three feet distant from any preceding stop. Other rolling procedures may be approved by the City Engineer, as conditions may require. Rolling shall be discontinued if the surface shows signs of excessive cracking or displacement and shall be continued later as directed. If it is found that the cracking and displacement continues, the paving operation shall be discontinued until the condition is corrected.

Rolling shall proceed continuously and in such a manner that all roller marks are eliminated. The rollers shall be in good condition. They shall be operated by experienced rollermen and must be kept in continuous operation as nearly as practicable

in such manner that all parts of the pavement shall receive substantially equal compression.

In no case shall the contractor use methods or equipment which will result in fractured aggregate or lateral displacement of the material.

Depressions which may develop before the completion of the rolling shall be remedied by adding new material to bring such depressions to a true surface. Should any depressions remain after the fine compaction has been obtained, new material shall be added to form a true and even surface. All high spots, high joints, and other defects found at the street or in testing that do not meet standards, need to be specifically located and detailed corrections must be proposed by the Developer's Engineer. As necessary, corrective measures shall be adjusted and applied as directed by the City Engineer.

D. Joints

Placing of the courses shall be as nearly continuous as possible and the roller shall pass over the unprotected end of the freshly laid mixture only when the laying of the course is discontinued or interrupted for an appreciable time period, and joints shall be formed at such points. Where joints are to be formed, the end of the freshly laid mixture shall be cut "square" with the pavement, slightly set up with the back of a metal lute and rolled at slow roller speed so as to cause as little feathering as possible. Before new material is laid the joint shall be cut back and a thin coating of hot asphalt applied to the joint. Care shall be taken to keep the asphalt paint off the surface of the pavement.

6. TACK COAT

A tack coat shall be applied to the existing pavement if it has been in place for longer than five calendar days; in accordance with CT D.O.T. Form 816A, Section 4.06, bituminous concrete.

7. FINISHED SURFACE - BITUMINOUS CONCRETE PAVEMENT

Placement of bituminous concrete pavement finished surface shall not begin until the processed aggregate base course is complete and the developer or his representative obtains final, written approval from the testing laboratory and the Engineering Division.

The final course of bituminous concrete pavement shall be a 1½" lift of Class II bituminous concrete over the 1½" binder, for a total bituminous pavement thickness of 3 inches. It will conform to ConnDOT Form 816 mix requirements for Class II Bituminous Concrete.

Application shall be as outlined for the binder course in the previous paragraph.

8. ROAD CONSTRUCTION TESTING REQUIREMENTS

All newly constructed roads within the City of Meriden must meet the requirements of the Subdivision Regulations in order to be accepted as City streets. In order to ensure the quality of newly constructed roads, an independent testing laboratory acceptable to the Engineering Division shall be retained and paid for by the developer to complete roadway compaction testing of all City streets in new subdivisions. Any roadway construction that does not conform to these requirements will not be acceptable to the City, and shall be ordered removed and replaced at the contractor's expense.

The following items shall be observed and documented by the testing laboratory:

A. Bulk Soil Sampling

Bulk samples of the soils to be used for the pavement subgrade, subbase, and base courses shall be submitted to the testing laboratory at least 2 weeks in advance of use. The samples shall be analyzed for Grain Size per ASTM D-422, *Standard Test Method for Particle-Size Analysis of Soils*, and Modified Proctor Density per ASTM D-1557, *Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³)*.

The developer shall initially provide one bulk sample for each fill material to be used. Additional samples should be provided for analysis at a frequency of 1 sample per 1,000 cubic yards of material used, or when the consistency of the material visibly changes. All test results shall be submitted to the Engineering Division for review.

B. Testing Subgrade, Gravel Subbase and Processed Aggregate Base

The dry density after compaction shall not be less than 95% of the dry density for that subgrade material when tested in accordance with ASTM D-1557.

In-place density shall be measured in the field as per ASTM D-6938 - *Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)*. Density tests shall be completed at a minimum frequency of 1 test per 50 linear feet of road surface. All test results shall be submitted to the Engineering Division for review.

C. Testing Bituminous Concrete Pavement

The testing laboratory representative shall record the mix temperature of each load before placement. Any load whose temperature is below 265° F at the time of placement shall be rejected.

In-place density shall be measured in the field as per ASTM D-2950 - *Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods*. Density tests shall be completed at a minimum frequency of 1 test per 50 linear feet of road surface. Acceptable in-place density shall be 92%-97% of the theoretical maximum density for the design mix being used. All test results shall be submitted to the Engineering Division for review.

9. CURB – PORTLAND CEMENT CONCRETE

New curbing may be required or existing curbing replaced or extended per City Standard as a condition of any zoning approval for building development or any right of way permit that needs an Engineered Plot Plan.

Curbing shall be designed to provide ramps for bicycles and/or wheelchairs as required by A.D.A. law.

10. CURB -BITUMINOUS CONCRETE

The curbing shall be constructed in accordance with the following requirements: Prior to the arrival of the mixture on the work, the surface of the pavement where the curbing is to be constructed shall be cleaned of all loose and foreign material. The surface which shall be

perfectly dry and clean at the time the mix is placed shall be coated with an RC-2 or other approved bitumen just prior to placing the mixture.

11. SIDEWALK – PORTLAND CEMENT CONCRETE

New sidewalk may be required or existing sidewalks replaced or extended per City Standard as a condition of any zoning approval for building development that needs an Engineered Plot Plan. This will not apply where sidewalk is specifically planned not to be installed on the City Sidewalk Map.

12. SIDEWALK – BITUMINOUS CONCRETE

Per Section 3.52 Bituminous sidewalks are not authorized, except for locations specifically identified on City Sidewalk Plan as approved by Planning Commission.

Excavation:

Excavation, including removal of any existing sidewalk, or driveway shall be made to the required depth below the finished, grade as shown on the plans or as directed. All soft and yielding material shall be removed and replaced with-suitable material.

Forms:

When the bituminous concrete is spread by hand, forms shall be used. Forms shall be of metal or wood, straight, free from warp and of sufficient strength to resist springing from the impact of the roller. If of wood, they shall be of two inch surfaced plank except that at sharp curves thinner material may be used; if of metal, they shall be of an approved section. All forms shall be of a depth equal to the depth of the sidewalks or driveways and shall be securely staked, braced, and held firmly to the required line and grade. All forms shall be cleaned and oiled each time they are used.

Base Course:

Gravel for the base course shall be uniformly spread upon the subgrade to the required depth and thoroughly compacted with a roller weighing not less than 500 pounds.

Bituminous Concrete Surface:

This surface shall be constructed in accordance with the requirements of paragraph 5, except that the material may be spread by hand and thoroughly compacted by multiple passes of a roller weighing not less than 500 pounds.

Backfilling and Removal of Surplus Material:

The sides of the sidewalk or driveway shall be backfilled with suitable material thoroughly compacted and covered with topsoil flush with the top of the sidewalk or driveway. All surplus material shall be removed and the site left in a neat and presentable condition to the satisfaction of the City Engineer. In sections inaccessible to the roller, the base course, surface course and backfill shall be hand temped with tempers weighing not less than 12 pounds, the face of which shall not exceed 50 square inches in area.

13. MAINTENANCE AND REPAIR AT TIME OF DEVELOPMENT CONSTRUCTION

Development can intensify usage of sites and street infrastructure in locations where the connected street infrastructure or the site's drainage capability may be in need of repair or inadequate. Therefore Development Standards shall be applied to any development project

that will significantly modify or intensify a site. These standards shall be considered to be minimum standards for all subdivision development plans, site plans, special development districts unless otherwise specified herein or in zoning, new residential plot plans and certain zoning and right of way permit approvals. Although a formal application to the Commission may not always be required, plot plans showing proposed development and identifying necessary improvements should be submitted for any building permit or additional parking connected with:

- new principal building development,
- redevelopment projects where rebuilding is essentially new development;
- projects that increase impervious surface greater than 2,500 square feet or greater than 25% of the property as determined using previous approved permit plans/photographic record;
- development projects close to environmentally sensitive areas;
- projects utilizing any variance of a zoning coverage standard.

When determined necessary by staff, the Plot Plan should be in the form of an up-to-date Survey showing existing structures, vehicular surfaces, site grading and drainage patterns, and street infrastructure (pavement, curbing, sidewalk and drainage), as well as proposed changes and necessary improvements.

If a Survey Plot Plan with improvements designed by and signed by an Engineer is needed, City Planners and Engineers will determine and identify in writing the general scope of improvements to address specific deficiencies based upon and rationally connected to the scope of the project and review of existing conditions.

Standards may be flexibly implemented when specific circumstances indicate that such modification will properly carry out the purpose and intent of these requirements. If field conditions warrant that the Design Engineer cannot meet one or more of the minimum requirements set forth in these Standards, or as identified in writing by a City Planner or Engineer, a waiver may be requested from the Director of Public Works. The Design Engineer must clearly indicate why the waiver is being requested and prove that the design will still meet the desired objectives.

City Planning and Engineering Divisions shall be required to inspect each site for basic safety and adherence to development standards prior to issuing a permit and identify any necessary improvement prior to stamping the plans. In such cases, a related part of the inspection is Zoning compliance, therefore the Zoning Compliance Fee should be applied. Any necessary improvements to comply with standards, such as basic measures to repair connected infrastructure or enhance drainage, need to be shown on the Plot Plan.

All improvements shown on the Plot Plan should be completed prior to occupancy. The property cannot be certified for occupancy if the improvements in or directly connected to the right of way are not completed, unless said improvements cannot be completed due to seasonal conditions, in which case a seasonal cash bond should be provided pending completion with said bond to be automatically forfeited to the City to complete improvements not done in a timely or acceptable manner.

Title V

DEVELOPMENT STORMWATER MANAGEMENT STANDARDS

DEVELOPMENT STORMWATER MANAGEMENT STANDARDS
(Adopted by P.C. May 11, 2011)

These standards are set to protect and preserve water resources from nonpoint sources of pollution through the proper management of stormwater flows and minimization of inputs of suspended solid, pathogens, toxic contaminants, nitrogen and floatable debris to these flows, as well as to prevent flooding.

1. Stormwater Management Planning

In conformance with federal and state law (CT DEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities), a stormwater management plan shall be submitted to the City of Meriden as a part of any development project where any construction, development, or redevelopment will disturb one or more acres of total land area on a site. The Planning Commission will be the lead agency in reviewing said plan, except that the Inland Wetland Watercourse Commission can also review said plan where they have jurisdiction. As further development or redevelopment occurs at any site that has an approved site plan or requires a site plan, a stormwater management plan needs to be updated and reviewed per this section when:

- the local, Planning, Building or Zoning approval pertains to development at a site with one acre or more of impervious cover where any new impervious surface has been or is proposed to be created, or drainage related infrastructure modified/non-functioning, or site drainage flows significantly modified except for passive flow reductions; or
- the local approval pertains to a new non-residential principal building on a site exceeding one acre; or
- the local approval pertains to new residential development at a site with four or more units; or
- the commission which has jurisdiction over the application has required submission of a stormwater management plan pursuant to written findings that the activity proposed in the application has the potential to cause significant nonpoint source pollution to groundwater or surface water drinking supplies, or any other waters of the City.

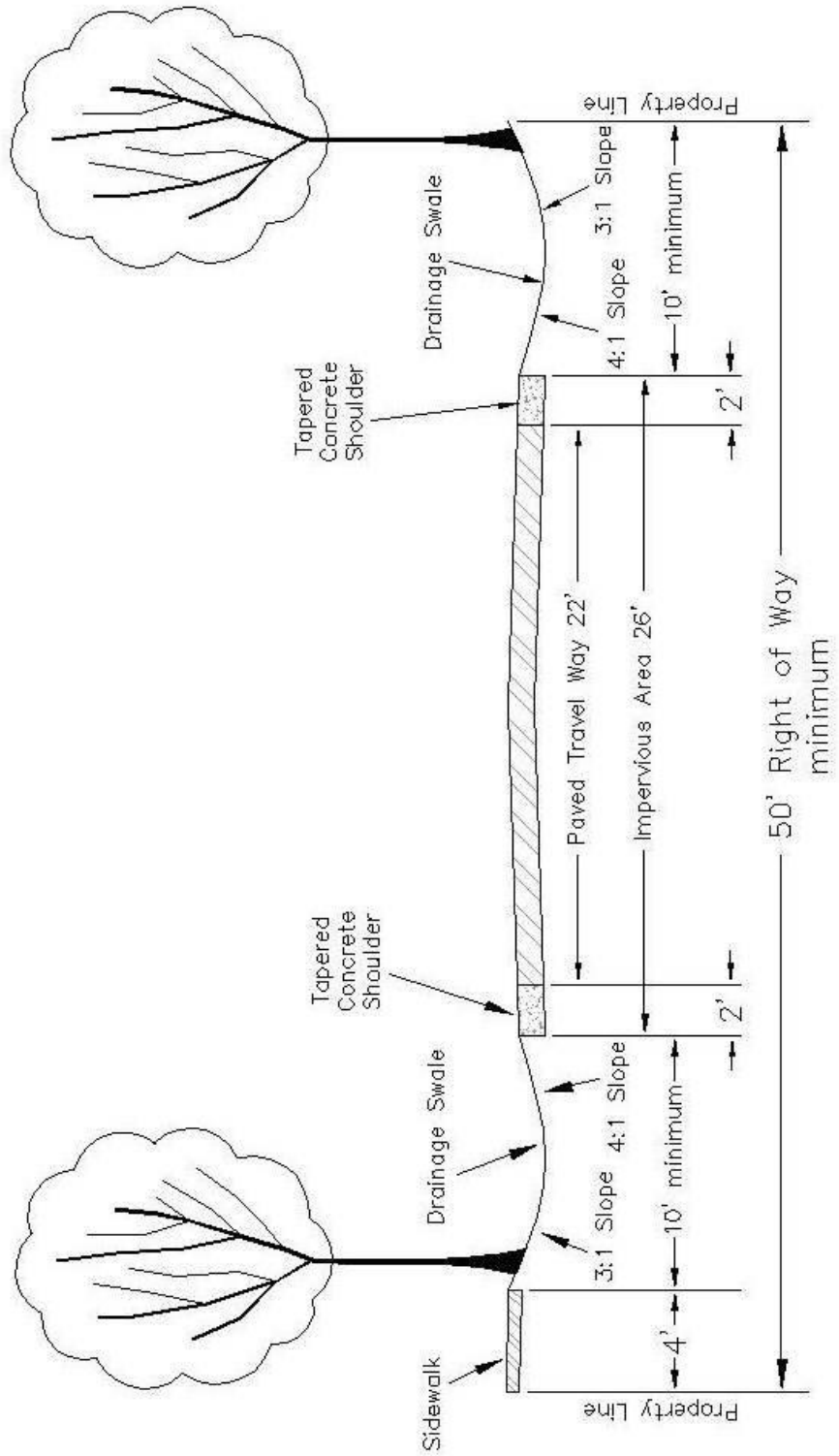
The stormwater management plan must be approved by the applicable City Commission. The plan will provide an inventory, evaluation, strategy and techniques for each site's unique conditions. It is intended to make sure that the development or redevelopment does not degrade any stormwater situation, and the plan should maximize the benefits of reasonable improvements.

Applicants should be made aware that any development which calls for a total disturbance of over 5 acres also requires the submission of registration to the Connecticut DEP under the General Permit. If the commission or its agent determines that a disturbance of greater than one acre has occurred without an approved stormwater management plan, the Commissioner of Environmental Protection may be notified of the violation of state law.

Stormwater management plans should be strongly encouraged for all land use and development projects, even where they are not required, and protective principles and techniques should be employed even for small projects. Whenever applicable, Low Impact Development Management Practices should be applied.

For a very low density low impact rural street where sidewalk is provided on one side of the street and is well separated from street pavement runoff, or where sidewalk is specifically planned not to be installed along a local street on the City Sidewalk Map, and street storm sewers are not available, a plan that includes low impact development techniques for street drainage may be considered.

CONCEPTUAL CROSS SECTION OF A VERY LOW DENSITY LOW IMPACT RURAL STREET



2. Definitions

Aquifer – a geologic formation, group of formations or part of a formation that contains sufficient saturated, permeable materials to yield significant quantities of water to wells and springs. State/City recognized public drinking water Aquifer Protection Areas are shown on the Zoning Map.

Bioretention area – a shallow planted depression designed to retain or detain stormwater before it is infiltrated or discharged downstream. This area can be a rain garden that is typically utilized on an individual homeowners lot, or a larger basin area typically for a larger common area or non-residential development.

BMPs – best management practices - techniques or structural devices that are effective practical ways of preventing or reducing pollution

Clean Water - defined as that stormwater runoff generated from roof flows collected in roof gutter or other pickup systems and transported to an underground detention system (such as drywells) or an above ground system (such as bioretention rain gardens). Not to include runoff from building roofs that have been exposed to industrial processes)

Dirty Water - defined as that storm runoff generated from parking and road pavements that carry sands, road salts, oils, etc., or from fertilizers, pesticides or exposed soils, or from building roofs that have been exposed to industrial processes.

“first inch of rain” – the first inch of rainfall during a single event. The initial runoff from the first inch of rain contains higher pollutant concentrations than the subsequent runoff, due to initial washing off of dry weather deposits in significantly higher concentrations than those washed off later in a storm. This effect is particularly pronounced with initial heavy rainfalls.

groundwater – water found beneath the ground surface that completely fills the open spaces between particles of sediment and within rock formations

impervious surface – material or structure on, above or below the ground that does not allow precipitation or surface water to penetrate directly into the soil

site – a single parcel or integrated parcels, together with any adjacent waters, which is the subject of an application for any zoning approval, subdivision approval, or an inland wetlands permit, or land within a Common Plan of Development as defined by EPA. The site includes associated new streets/street extensions.

sediment – solid material, either mineral or organic, that is in suspension, is transported, or has been moved from its site or origin by erosion

urban stormwater runoff – precipitation that falls onto the surfaces of roofs, streets, parking lots, roads and the grounds of developed areas. Urban precipitation is often not absorbed by the ground, but collects and runs off, carrying a wide variety of pollutants such as oil-based contaminants, heavy metals (copper and lead), nutrients and bacteria.

ZIRO - Zero net Increase in peak stormwater RunOff (peak rate and volume) between pre- and post-development conditions is to be maintained for all storms, including the 2, 10, 25 and 100 year storms.

3. Contents of stormwater management plan:

Where a stormwater management plan is required, such plan shall provide, at a minimum, the following information:

- A. Soil characteristics of the site.
- B. Location of the closest surface water bodies and wetlands to the site, and the depth to any groundwater areas on or adjacent to the site (with sources noted).
- C. DEP ground and surface water quality classification of waterbodies on and adjacent to the site, including identification of any waterbodies on and adjacent to the site documented as not meeting water quality standards pursuant to Section 303(d) and Section 305(b) of the Federal Clean Water Act (CT 2008 Impaired Waters List, as amended).
- D. Extent of development envelope/limit of disturbance in which buildings, roads and other constructed features are to be sited. Show location of sensitive areas, mature trees to be protected, and areas with soils suitable for infiltration.
- E. Location and description of all proposed stormwater control BMPs for both construction activities and post-construction long-term stormwater control.
 1. The applicant shall employ the best available technology in design of the drainage system for achieving ZIRO and dealing with Dirty Water. As a part of currently accepted Best Management Practices, the reduction of sediment and pollutants must be employed; the 2004 Connecticut Stormwater Quality Manual, as amended, should be consulted. Typically, Dirty Water flows are initially treated at catch basins where some heavy particulates are trapped in basin sumps. For large projects and areas involving pollutant uses/activities (trucks/buses, fuels, vehicle washing, outdoor storage, etc.), prior to discharge, flows pass through a “water quality inlet” where sediment and oil chambers can provide for secondary separation and treatment of particulates and oils. Discharges would then either be directed into a stormwater detention basin in accordance with ZIRO requirements, or into bioretention/rain garden areas with substantial plantings in developed areas. On-site natural infiltration functions need to include handling of Clean Water to attenuate and dissipate into the groundwater table.
 2. In appropriate circumstances (such as small non pollutant use areas of less than 1 acre of disturbance, areas outside/insulated from water resources, low water table with permeable soils) the separation and treatment of particulates and oils may not need to occur through structured systems and may occur at bioretention areas within developed areas.
 3. For new street pavement extensions associated with development only requiring zoning approval, proposed direct connections to existing storm sewers must demonstrate adequacy of the existing system’s treatment train, otherwise new surface stormwater should be managed within the site.
 4. For new or revised parking, overflow permeable parking spaces may be utilized in areas where infiltration is to be encouraged. Modular concrete paving blocks, modular concrete or plastic lattice, or cast-in-place concrete grids noted in DEP’s Connecticut Stormwater Quality Manual can be considered. The design details and a

maintenance plan need to be reviewed by the City Engineer and, as applicable approved by the Commission.

- F. Proposed maintenance and operation manual or schedule for any catchbasins or other BMP devices used to prevent runoff or treat stormwater. As appropriate, the applicant may propose an easement/maintenance agreement with adjacent lots to create a shared-use detention facility, or share an existing underutilized high quality facility.
- G. Calculations of stormwater runoff rates, total suspended solids (TSS) load and removal rates, and soil infiltration rates before and after completion of the activity proposed in the application. Regarding TSS removal, describe current and proposed load removal and use an acceptable estimation method such as the TSS Removal Calculator from MassEPA; as necessary identify methods for improving effectiveness.
- H. A hydrologic study of pre-development site conditions. Hydrology studies shall be conducted at a level of detail commensurate with the probable impact of the proposed activity.
- I. For a Very Low Density Low Impact Rural Street proposed to utilize low impact street drainage techniques include: draft Subdivision covenant and deed restrictions that identify basic requirements such as having garages and sufficient off street parking, a limit to impervious surfaces, and spelling out maintenance of the swales and drainage areas (including the infiltration island at the end of the cul-de-sac).

4. Standards and Criteria for Decision

In order to approve any application for which a stormwater management plan is required, the commission which has jurisdiction over the application shall find the stormwater management plan consistent with the following criteria. If such application is also subject to the requirements of an Aquifer Protection Area any other requirements for nonpoint source pollution control, the more stringent requirements shall control.

- A. Direct channeling of untreated surface water runoff into adjacent ground and surface waters shall be prohibited.
- B. No net increase in urban stormwater runoff (peak rate and volume) from the site, to the maximum extent possible, shall result from the proposed activity.
- C. Design and planning for site development shall provide for minimal disturbance of pre-development natural hydrologic conditions, and shall reproduce such conditions after completion of the proposed activity, to the maximum extent feasible. For example, during construction, site disturbance area and soil compaction should be minimized, and sensitive natural areas, riparian buffers, and natural flow pathways should be preserved. An example of reproducing conditions post construction would be grading and landscape details that maximize vegetated natural infiltration.
- D. Pollutants shall be controlled at their source to the maximum extent feasible in order to contain and minimize contamination, and reduce the need for extensive restoration efforts. Methods include but are not limited to sweeping of streets and parking lots, especially in the early spring, the use of oil traps and sediment basins prior to infiltration, the use of pervious surfaces and encouragement of sheet flow to filter strips.
- E. Stormwater management systems shall be designed and maintained to manage site runoff in order to eliminate surface and groundwater pollution, prevent flooding and, where required, control peak discharges and provide pollution treatment.
- F. Stormwater management systems shall be designed to collect, retain and treat the first inch of rain on-site, so as to trap floating material, oil and litter. BMP techniques to achieve treatment of the first inch of rainfall include oil and grit separators. Where

bioretention areas are not preceded by sumps or sediment and oil chambers, a filter strip and a retention area that can treat the first inch of rain are minimally needed.

- G. On-site storage of stormwater shall be employed to the maximum extent feasible. On-site storage methods include but are not limited to landscaped depressions, grass swales, infiltration trenches and retention or detention basins.
- H. Post-development runoff rates and volumes shall not exceed pre-development rates and volumes. Stormwater runoff rates and volumes shall be controlled by slowing runoff velocities and encouraging infiltration. BMP methods for controlling runoff and encouraging infiltration include the minimization of impervious surfaces, minimization of curbing and collection, the use of grass or vegetative filter zones, landscape depressions, slotted curb spacers, perforated pipes for conveying stormwater, establishment of buffers from streams, wetlands and waterbodies, and any combination of methods, where appropriate.
- I. Stormwater treatment systems shall be employed where necessary to ensure that the average annual loadings of total suspended solids (TSS) following the completion of the proposed activity at the site are no greater than such loadings prior to the proposed activity. Alternatively, stormwater treatment systems shall remove 80% of TSS from the site on an average annual basis. BMP methods for stormwater treatment include infiltration through vegetative strips, grass swales and detention basins. Where detention basins are not preceded by treatment measures, the basin itself needs to provide sufficient bioretention treatment.
- J. To be eligible for a proposed Very Low Density Low Impact Rural Street without storm drains and with lower width roads, an application will also need to ensure proper design and maintenance, and demonstrate consistency with the Plan of Conservation and Development's objective to develop larger higher value homes to diversify and balance the housing stock.

5. Low Impact Development Stormwater Practices

Low Impact Development (LID) is a site design strategy that employs many of the concepts and practices described in this chapter. The goal of LID is to maintain or replicate predevelopment hydrology through the use of small-scale controls integrated throughout the site. Site design techniques such as those described, and the use of micro-scale integrated management practices can manage runoff as close to its source as possible. This involves strategic placement of lot-level controls to reduce runoff volume and pollutant loads through infiltration, evapotranspiration, and reuse of stormwater runoff. The appropriateness of LID practices is highly dependent on site conditions. Soil permeability, slope, and depth to water table and bedrock are physical constraints that may limit the use of LID practices at a site.

Although alternative site design and LID practices may not replace the need for conventional stormwater controls, the economical and environmental benefits of LID practices generally include: cleaner water, reduced stormwater related infrastructure and outlay cost, and "green" vegetative plantings supported by rain water. LID practices described in the following sections include:

- Vegetated Swales, Buffers, and Filter Strips
- Bioretention/Rain Gardens
- Dry Wells/Leaching Trenches
- Rainwater Harvesting
- Vegetated Roof Covers (Green Roofs)

The main feature that distinguishes these practices from conventional structural stormwater controls is scale. These small systems are typically designed as off-line systems that accept runoff from a single residential lot or portions of a lot, as opposed to large multiple-lot or end-of-pipe controls.

A. Vegetated Swales, Buffers, and Filter Strips

Vegetated swales, buffers, and filter strips are vegetative practices that can be incorporated into a site to maintain predevelopment hydrology. These practices are adaptable to a variety of site conditions, are flexible in design and layout, and are relatively inexpensive. Vegetated swales can provide both water quantity and quality control by facilitating stormwater infiltration, filtration, and adsorption. Vegetated buffers are strips of vegetation (natural or planted) around sensitive areas such as wetlands, watercourses, or highly erodible soils. Similarly, filter strips are typically grass or close-growing vegetation planted between pollutant source areas and downstream receiving waters or wetlands. Filter strips are commonly located downgradient of stormwater outfalls and level spreaders to reduce flow velocities and promote infiltration/filtration.



Dry Swale: These are vegetated open swales or depressions which are specifically designed to detain and infiltrate stormwater into the underlying soils. They use a modified soil mixture to enhance the infiltrative capacity of the system. In order to be utilized for groundwater recharge, the bottom of the system must be unlined to infiltrate stormwater into the underlying soils. (Source: UCONN NEMO)

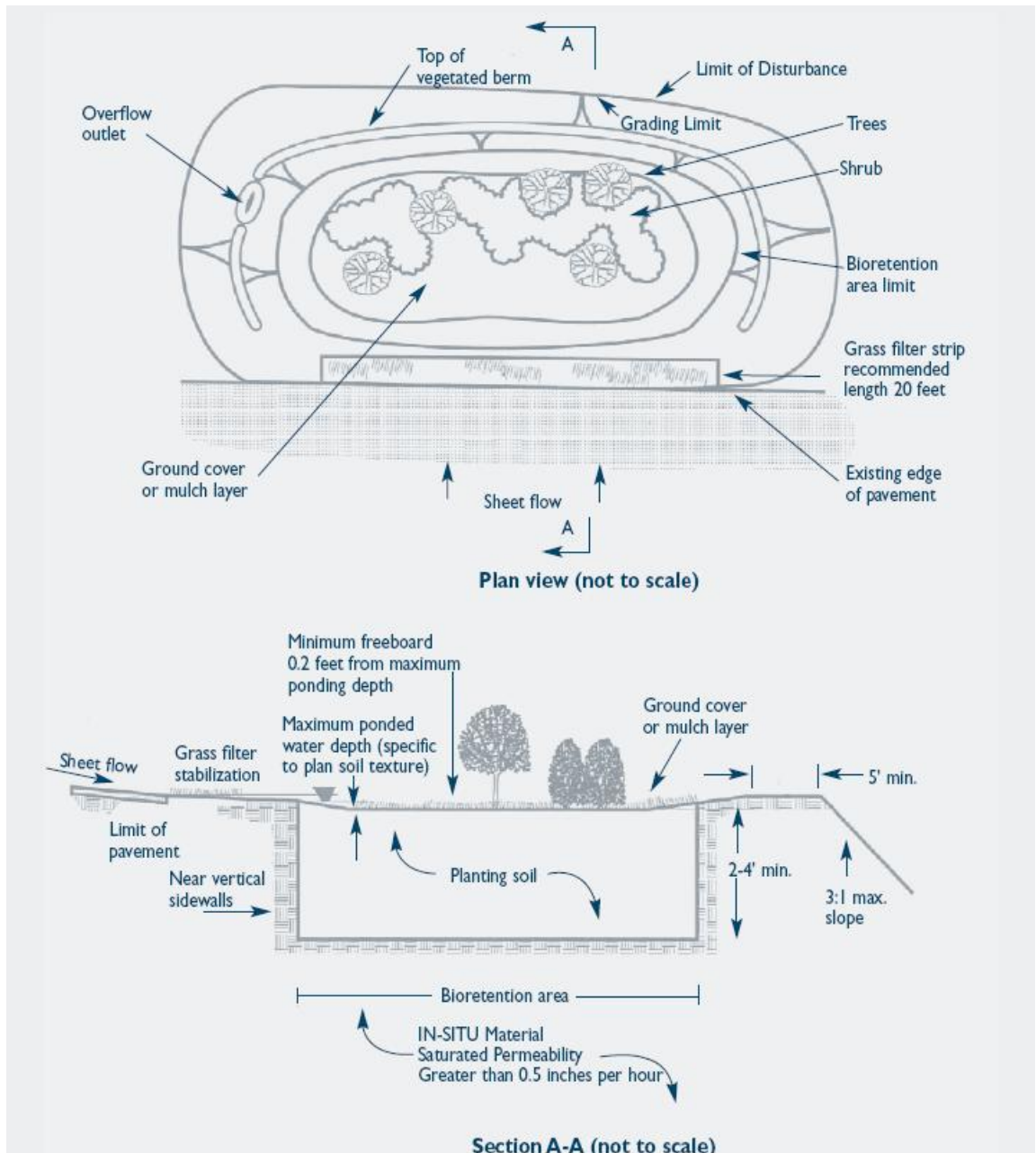
B. Bioretention/Rain Gardens

Bioretention is a practice to manage and treat stormwater runoff by using a specially designed planting soil bed and planting materials to filter runoff stored in a shallow depression. Bioretention areas are composed of a mix of functional elements, each designed to perform different functions in the removal of pollutants and attenuation of stormwater runoff. Bioretention removes stormwater pollutants through physical and biological processes, including adsorption, filtration, plant uptake, microbial activity, decomposition, sedimentation, and volatilization. The major components of a bioretention system include:

- Pretreatment area (optional)
- Ponding area
- Ground cover layer
- Planting soil
- In-situ (naturally in place) soil
- Plant material
- Inlet and outlet controls

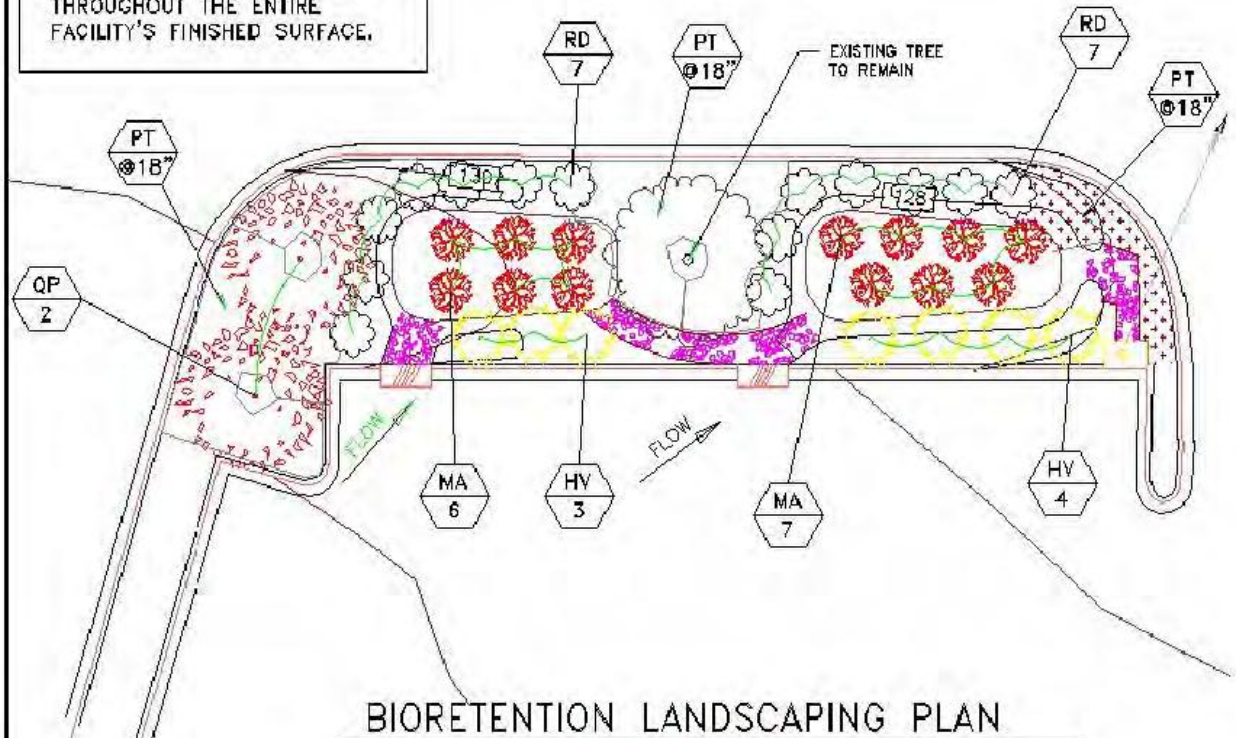
Reference the schematic of a typical bioretention facility depicting each of these functional elements. Bioretention facilities are most effective if they receive runoff as close as possible to the source and are incorporated throughout the site. Soils should be tested to establish capability for infiltration (pre-construction soil textural analysis and post-construction flow rate testing).

Functional Elements of Bioretention Facilities



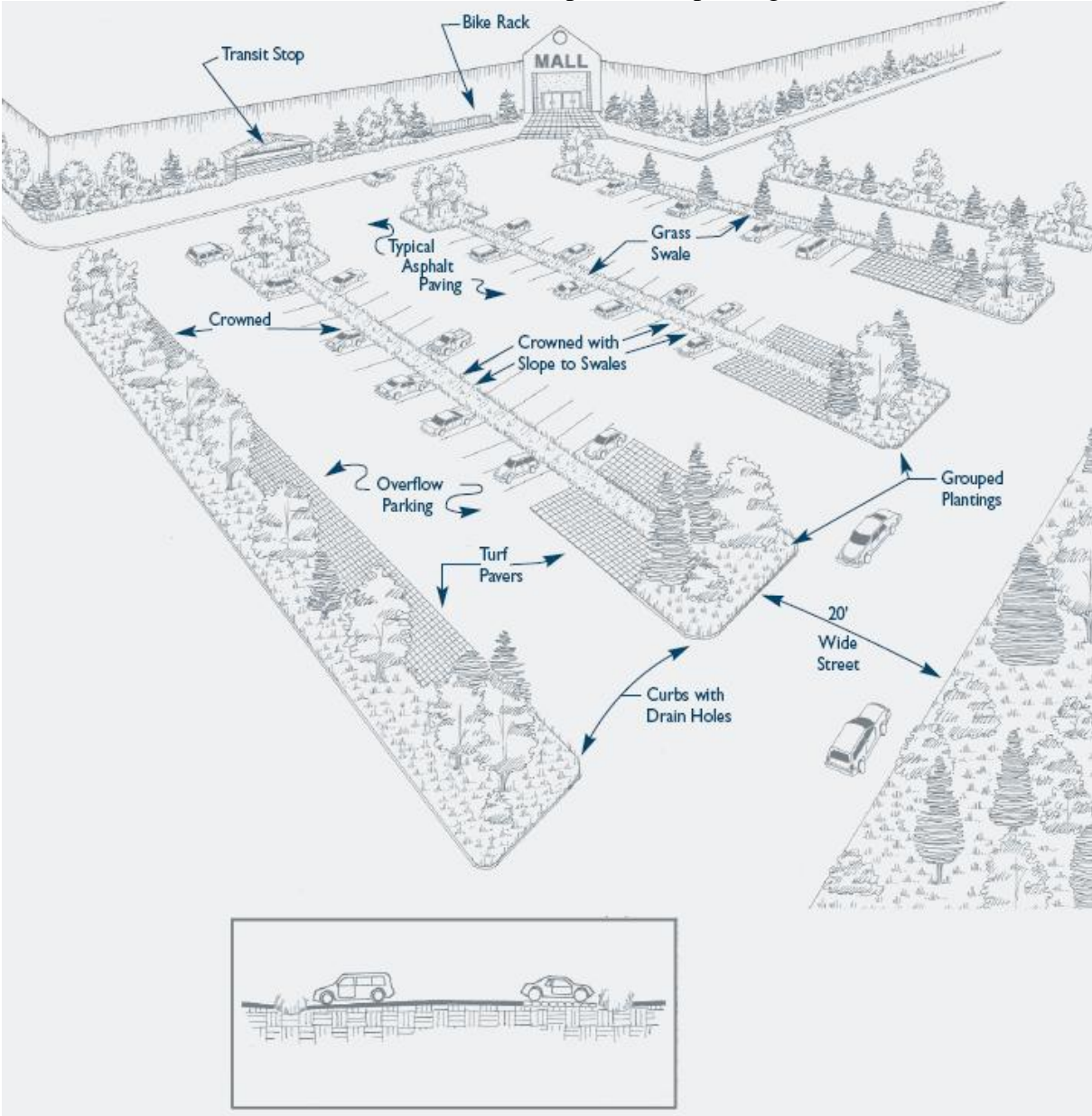
NOTE:

PLACE A 2" TO 3" LAYER OF SHREDDED HARDWOOD MULCH THROUGHOUT THE ENTIRE FACILITY'S FINISHED SURFACE.



LANDSCAPING PLANTING SCHEDULE						
QUANT.	KEY	BOTANICAL NAME	COMMON NAME	CONDITION	SIZE	REMARKS
2	QP	<i>Quercus Palustris</i>	PIN OAK	B & B	2" - 2-1/2"	Branching
7	HV	<i>Hamamelis Virginiana</i>	MITCH-HAZEL	Container	18" - 24"	
14	RD	<i>Rhododendron "Delaware Valley"</i>	WHITE AZALEA "Delaware Valley"	Container	18" - 24"	
1800	PT	<i>Pachisandra Terminalis</i>	PACHISANDRA		6" - 8"	
13	MA	<i>Mentha Arvensis</i>	WLD MINT		8" - 12"	

Alternative Parking Lot Design Schematic
(swales, bio-retention islands, permeable parking, etc.)





Rain gardens are a small-scale form of bioretention that can be incorporated into a variety of areas in new and existing developments, including:

- Residential yards
- Street median strips
- Road shoulder rights-of-way
- Parking lot islands
- Under roof downspouts

Rain gardens serve as a functional landscape element, combining shrubs, grasses, and flowering perennials in depressions that allow water to pool for only a few days after a rain. The soil absorbs and stores the rainwater and nourishes the garden vegetation. Plant species appropriate for use in bioretention areas vary. Species should be selected based on the ability to tolerate the soil moisture regime and ponding fluctuations (both wet and dry conditions); however, upland and wetland species may also be included. Species should be commonly either native or ornamental. Rain gardens can be an effective, lowcost method for reducing runoff volume, recharging groundwater, and removing pollutants.



C. Dry Wells/Leaching Trenches

Dry wells are small excavated pits or trenches filled with aggregate which receive clean stormwater runoff primarily from building rooftops. Dry wells function as infiltration systems to reduce the quantity of runoff from a site. Dry wells treat stormwater runoff through soil infiltration, adsorption, trapping, filtering, and bacterial degradation. The use of dry wells is applicable for small drainage areas with low sediment or pollutant loadings, and where soils are sufficiently permeable to allow reasonable rates of infiltration and the groundwater table is low enough to allow infiltration.



Infiltration Trenches store water volume within the void spaces of crushed stone or clean gravel prior to the water being infiltrated into the underlying soils. This practice is for runoff from residential roofs or small commercial roofs (<3,000 sq.ft.).

D. Rainwater Harvesting

Rain is a renewable resource and is abundant in Connecticut. Rainwater harvesting can be used to supply water for drinking, washing, irrigation, and landscaping. It generally involves five main components: catchment, conveyance, purification, storage, and distribution. Catchment areas are most commonly roofs, while conveyance is via gutters and roof leaders. Rainwater is stored in either rain barrels or cisterns (water tanks). Rainwater harvesting can be used to retain a portion of stormwater runoff during rain events and release it during dry periods such that the total volume of runoff is reduced.

Cisterns store larger quantities of rooftop stormwater runoff and may be located above or below ground. Cisterns can also be used on residential, commercial, and industrial sites. Pre-manufactured cisterns come in a variety of sizes from 100 to 10,000 gallons. However, even larger concrete cisterns may be constructed in place for large industrial, commercial, and public uses.

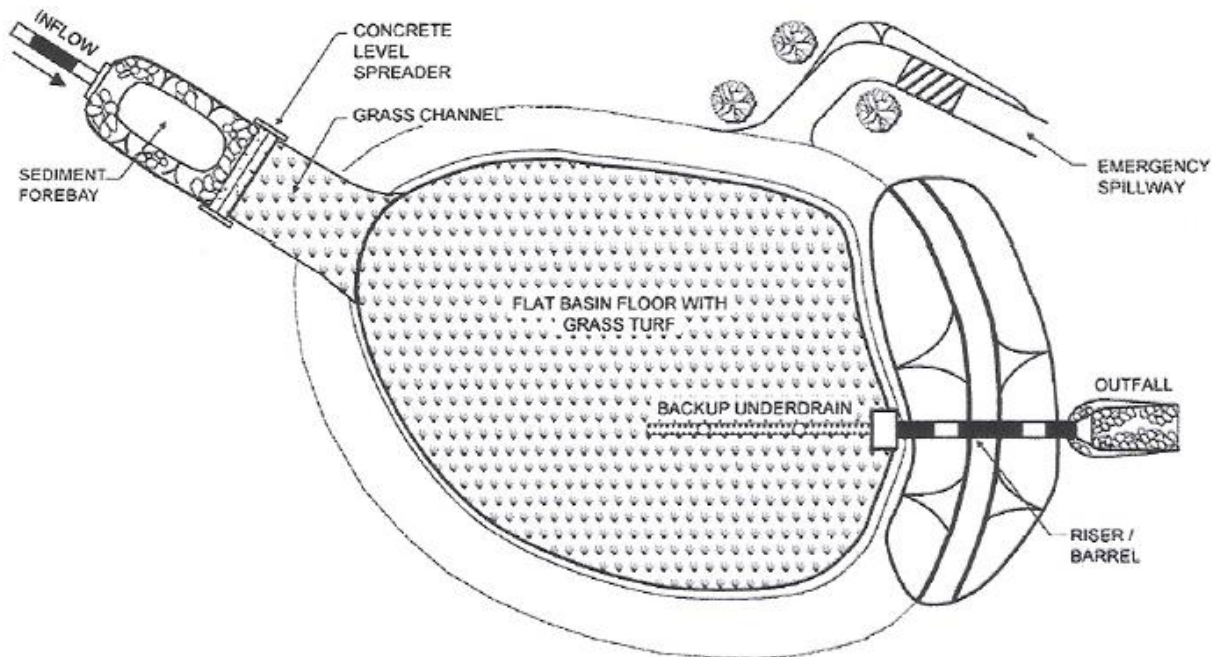
E. Vegetated Roof Covers

Vegetated roof covers, also referred to as “green roofs”, are layers of vegetation installed on building rooftops. Green roofs are an effective means for reducing urban stormwater runoff by replacing impermeable rooftops with permeable, vegetated surfaces. Rainwater is either intercepted by vegetation and evaporated to the atmosphere or retained in the substrate before being returned to the atmosphere through transpiration and evaporation. The green roof is a multilayered, constructed roof system consisting of a vegetative layer, media, a geotextile layer, and a synthetic drain layer.

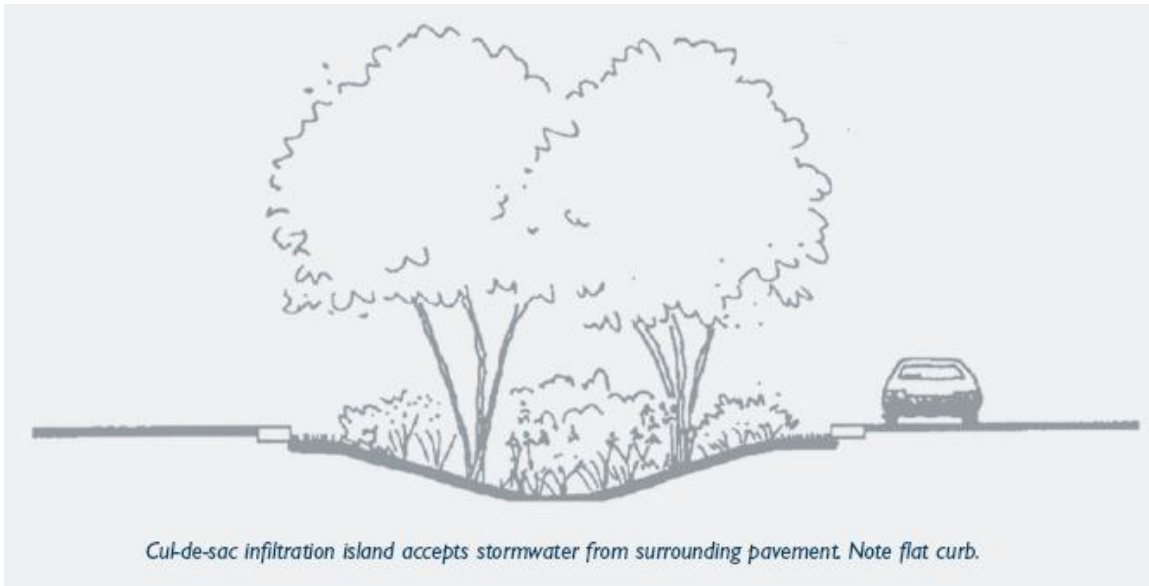


F. Additional Structural Techniques include, but are not limited to: infiltration basins, cul-de-sac infiltration island, permeable pavement, compost, amended soils, tree filters, stormwater planters, curb extensions.

Infiltration Detention Basin (concept example)



Infiltration Island at end of Very Low Density Low Impact Rural Street



A landscaped center island at the cul-de-sac turnaround significantly reduces impervious pavement and resultant stormwater. The island can accept substantial runoff and snow. The island needs to be large and contain infiltratable soils.

(amended 6/8/11)

Title VI

Planned Executive Office Development

TITLE VI

PLANNED EXECUTIVE OFFICE DEVELOPMENT REGULATIONS

(Adopted by PC 6/21/84)

1.00 PURPOSE

The City of Meriden, confronted with increasing urbanization and scarcity of developable non-residential tracts of land and acknowledging the compatibility with residential uses and assets of Executive Headquarters, encourages the highest quality executive office development in a campus setting.

These regulations are in accord with and in furtherance of the above stated purpose and Section 213-35 of the City of Meriden Zoning Regulations.

2.00 STATEMENT OF OBJECTIVES

The following specific objectives and guidelines are similar to those listed in subsection 213-35 of the City of Meriden Zoning Ordinance. A Planned Executive Office Development may receive favorable consideration if all of the following objectives are met both in concept and in specifics:

- A. 1. Minimal adverse impact is imposed on adjacent properties;
2. Minimal adverse impact is imposed on the immediate street system;
3. Sufficient capacity is provided in the sanitary sewer, water supply and other utility systems over the life of the development;
4. There is adequate access to a major street or highway;
5. The architectural design of all structures are in harmony with the neighborhood;
6. The developer provides amenities commensurate with the size and character of the development;
7. Creative design and careful land planning are accomplished;
8. Appropriate screening and landscaping is provided;
9. Water resources and natural features are protected and enhanced;
10. Soil erosion and sedimentation that occurs as a result of the development is minimum during construction and completely stabilized after development is completed.

- B. If any of the above listed objectives are not met when a developer submits an application for tentative approval, the Planning Commission shall decide not to give further consideration to the application unless:
 - 1. The developer presents adequate evidence of his ability and willingness to correct any condition not meeting these objectives:
 - 2. The Planning Commission receives adequate documentary evidence of an official action of a municipal or state agency which will satisfy the condition within a time period acceptable to the Planning Commission.
- C. Planned Executive Office Development is not to be used as a device by developers to create professional offices or "" any other type of commercial/industrial activity in areas not presently zoned for such activities. Unless all provisions of Section 213-35 of the City of Meriden Zoning Ordinance and the Planning Commission's P.E.O.D. Regulations have been adhered to, the City Planning Commission shall not approve an application for P.E.O.D.

3.00 DESIGN STANDARDS

Since the essence of good design is imaginative architecture and land planning, every attempt should be made to keep high standards throughout the planning, design and construction process. A Planned Executive Office Development shall contribute to the aesthetic value of its location.

A. Buffers

There shall be a forty (40') landscaped buffer around the entire perimeter of the P.E.O.D. designated property, except for such portion of the perimeter on a site which abuts I-91, Rte. 15, or I-691. Said landscaped buffer is meant to be an aesthetically pleasing, transitional area between the neighborhood and the proposed development and therefore shall include extensive landscaping properly designed. Only access drives, landscaping and utilities shall be allowed within the buffer area. No structures of any type will be permitted.

B. Building Setback Areas.

The building setbacks required for the underlying zone shall begin at the edge of the forty (40') foot buffer zone or that portion of property which abuts I-91, Rte. 15 or I-691 and shall apply to all structures except signs, access roads, utilities, and fences where deemed necessary by the Commission. No parking shall be allowed within this setback area. Such area is meant to be a continuation of the buffer area with heavier treatment where necessary for screening purposes. Setback areas may be used for passive employee activities such as walking, jogging paths, etc.

C. Traffic Flow

Ease of entrance to and exit from the development with a minimum of disturbance to outside traffic flow shall be considered of prime importance. Entrances and exits shall be located either at an existing intersection or a minimum of 50' from an

intersection. No exit or entrance shall exceed a grade of six (6%) percent within 25' of any street line nor ten (10%) percent at any other point. For a Planned Executive Office Development, consideration shall be given to the inclusion of arterial thru streets with proper provisions made to minimize the effects of traffic through residential areas. In all cases a Traffic Study shall be prepared by a licensed P.E. addressing the impact of the development upon the street system in the area. Said study shall be part of the tentative approval application.

The interior traffic circulation pattern shall be safe and aesthetically in harmony with the stated objectives of the P.E.O.D. designation. Some design items to consider in laying out the interior system would include:

- Work with, not against the topography;
- Utilize curves to break up the monotony of straight drives;
- Separate pedestrian and vehicular traffic where possible.

D. Parking

The parking ratio shall be one (1) space per three hundred (300) square feet of gross floor area. Such parking shall be limited to paved off-street parking lots, and parking structures above and below ground. On-grade parking lots shall be screened from abutting properties by a landscaped strip of a minimum width of five (5') feet with plantings at least five (5') feet high planted six (6') feet on center. In the case of parking structures, the use of hanging type plantings can be substituted for the required landscaped strip of lower level. The upper level must include the planting strip for roof aesthetic purposes. Further, not more than 12 parking spaces shall be permitted in a continuous row, and not more than 24 spaces shall be permitted in a single parking area without being interrupted by a Landscaped linear or end island.

Each required space, exclusive of drives and aisles, shall be not less than 19 feet long nor less than 9 feet wide, and shall be served by an aisle between rows of parking spaces as designated in Section 213-55 of the Zoning Ordinance. Up to 30 percent of the parking spaces in any off-street parking area may be designated for compact cars, with spaces not less than 16 feet long nor less than eight feet wide. Upon a determination by the Planning Commission that the required number of parking spaces would be greatly in excess of the need of a particular use on a given lot, the Commission can waive the requirement that all such spaces be surfaced to the extent that it may deem the number required to exceed the actual need. Off-street parking areas shall be adequately illuminated for convenience and safety, but no lighting shall cause glare on adjoining property.

All parking lots must include handicapped parking spaces per the ratio found in Section 213-55 of the Zoning Ordinance.

E. Lot Coverage

Lot coverage of all structures and paved areas shall not exceed fifty (50%) percent of land area of each building lot within the P.E.O.D. This means that fifty (50%) percent of each lot must be kept in a "green state". This "green state" including buffer

and setback areas shall be in its natural state and where required by the Planning Commission, shall be landscaped by the planting and maintenance in good condition of grass, shrubs, trees or other ground cover.

F. Easements and Rights-of-Way

The City of Meriden may require easements and rights-of way to provide necessary utilities. The City may also accept an interest in any land or structure where the City deems such interest to be necessary or desirable.

G. Architecture

Each Planned Executive Office Development shall have a consistent design theme with diversity achieved through building siting and unit design.

Building materials in each section of the development should be consistent so as to maintain a unifying visual effect. Roof materials, window sizes and general styles should be compatible within the whole P.E.O.D .

General building plans and elevations are required with an application for tentative approval. The general building plans must also designate floor area constituting individual "suites" as defined in Section 213-35E(1) of the Zoning Ordinance.

All roof mounted structures and equipment shall be integrated into the architectural design of the buildings so as to be concealed and inconspicuous.

H. Landscaping and Environmental Considerations

The design of the Planned Executive Office Development shall keep the natural landscape intact as much as possible. This is economical as well as aesthetically desirable since extensive road cuts, land filling, regrading and large tree removal is costly from a construction viewpoint. Since Planned Executive Office Development allows design freedom in lot placement, the grading of uneven land for construction of a block subdivision pattern is undesirable.

Any proposal which requires modification of a wetland or watercourse must be approved by the Meriden Inland Wetlands and Watercourse Commission before formal filing of plans with the City Planning Commission. (Amended 5/14/86)

Existing streams, ponds, wetlands and lakes on the property are assets and should be so treated.

Natural drainage channels shall be avoided when siting structures.

Design of a Planned Executive Office Development shall respect the natural features of the site. The development should be planned to take advantage of the natural conditions of the land. Contours should not be modified except where necessary to provide for buildings or parking facilities. Trees should be saved wherever possible,

including in parking lots and adjacent to buildings where limbs will not damage buildings. Water areas, especially ponds and lakes, should be retained for environmental enhancement and flood retention purposes.

The design should accommodate the natural environment and not create environmental conflicts or degradation.

Outdoor loading areas shall be screened with an opaque fencing of substantial material such as wood or masonry and appropriately landscaped so as to screen all loading or offensive operations from view of residential buildings or driveways.

The location and site design of the development shall be in harmony with the established pattern of land use, and shall in relation to existing public utilities and services. Future development of surrounding areas shall be considered in planning for the Planned Executive Office Development. Provisions shall be made for erosion control, protection against stream siltation, prevention of stream or ground pollution and dust control during construction activities. A plan for sediment control and prevention of soil erosion, approved by the Southwest Conservation District shall be presented to the Planning Commission for approval prior to any on-site construction activity. The Planning Commission shall review erosion control and siltation prevention measures for effectiveness and may require modifications where it deems some necessary.

Watercourses, drainage swales or ditches and storm water sewers shall be so designed as to prevent erosive velocities in the storm water conveyance systems.

I. Soil Erosion and Sediment Control (Amended 5/14/86)

Plans for soil erosion and sediment control shall be developed using the principles as outlined in Chapters 3 and 4 of the Connecticut Guidelines for Soil Erosion and Sediment Control (1985), as amended. Soil erosion and sediment control plans shall result in a development that: minimizes erosion and sedimentation during construction; is stabilized and protected from erosion when complete; and does not cause off-site erosion and/or sedimentation. The appropriate method from Chapter 9 of the Connecticut Guidelines for Soil Erosion and Sediment Control (1985), as amended, shall be used in determining peak flow rates and volumes of runoff unless an alternative method is approved by the Commission.

J. Utilities

Preliminary presentation drawings for Planned Executive Office Developments shall include placement of all utilities underground, whether they are immediately available or not. These include, but are not limited to, sanitary sewer and water supply, electricity, gas, telephone, fire, signal and community antenna systems. Location of supply lines shall be shown on the utility plans. Locating these facilities in paved areas, preferably streets or driveways, will permit proper maintenance of the utility lines. Sanitary sewer, storm sewer and water main designs must meet the requirements of all appropriate codes and be approved by the City Engineer before final plan approval may be granted.

In road building across streams, the drainage pipes should be aligned with the streams rather than perpendicular to the road. Erosion of banks along watercourses shall be prevented. Watercourses should not be forced into unnatural channels for the purposes of lot or street construction.

A preliminary scheme for all utilities shall be prepared for review at the time an applicant is seeking tentative approval. The plans shall contain sufficient information so that the Planning Commission can review the feasibility of proposals for disposition of sanitary waste, supply of fresh water, disposal of solid waste, service of energy and fuels and storm water management. Plans shall provide for peak storm water retention so that the completed development does not create an increase in intensity of runoff over the undeveloped, natural environment.

All profiles and as-built drawings for publicly owned or maintained facilities in a Planned Executive Office Development must be filed with the City Engineering Division at completion of construction of each section.

Local street drainage shall be based on a minimum of a ten (10) year design storm.

Trunk storm water sewers and watercourses shall be based on a twenty-five (25) year design storm. Higher design criteria may be imposed where extensive property damage or loss of life might occur from a larger design storm.

Sanitary sewer peak flow rates and total daily flow shall be shown on plans for each section of sanitary sewer.

Water usage calculations must be submitted along with a determination that such a development is capable of being serviced by the City system without detriment to the area.

K. Lighting

Outdoor lighting shall be directed or shielded so that the light source is not readily visible from and no glare or direct light is cast on adjacent properties. Indirect light falling on adjacent property shall be of low intensity. Normally, no luminaries shall be more than 10' above ground level.

L. Signs

1. Only one free standing sign pertaining to the use of the entire P.E.O.D., for the purpose of identifying the development may be erected. Such a sign shall not exceed forty (40) square feet in area nor a height of eight (8') feet. Such a sign shall be placed within the property boundaries of the P.E.O.D. Such sign may be illuminated but may not be animated, flashing, or rotating. A sign which is illuminated shall be shielded so that no glare may be visible from the street.
2. Only one free standing sign pertaining to the business for the purpose of identifying the name of the business, may be erected on any lot in the P.E.O.D. Such signs are subject in all respects to the requirements of Paragraph L-1 above of these regulations.

3. Directional signs may be maintained on any lot provided no such sign shall be larger than four (4) square feet in area nor exceed a height of four (4) feet.

4.00 Design Procedure

Creation of a Planned Executive Office Development is a combined venture of the developer and City agencies. The Planning Commission must evaluate plans, coordinate reviews, establish guidelines and approve all plans. The following procedure has been developed to assist in expeditious review and coordination of activities.

- A. A site survey map including a complete description of the property boundaries, topography, drainage and geographic features shall be prepared before discussion with the Planning Commission. The map shall include a Connecticut Class A-2 boundary survey with an accuracy of 1 to 5,000. This map should show site advantages, views, problems, prominent geographic features, vegetation and tree cover, soil types, wetlands and watercourses and waterbodies, surrounding land uses and traffic circulation and character of the site. (Amended 5/14/86)
- B. The development architect and/or project planner shall prepare a plan showing the proposed development and its surroundings. The plan must show surrounding developed land and structures or vacant land. This shall include all structures, open space and accessory areas, public facilities and the relationship or existing uses to the proposed development. This plan shall also show the location of and design details of all proposed soil erosion and sediment control measures and storm water management facilities as required in Section 3.55 of the subdivision regulations. (Amended 5/14/86)
- C. Each plan and map shall be drawn by the prior to submission of an application for tentative appropriate registered architect, site planner or engineer for consultation with the Planning Division approval. All documents submitted for either the tentative or final approval shall bear the facsimile seal of the professional architect, site planner, surveyor or engineer responsible for their creation.
- D. The developer shall, at a mutually convenient time, explain the proposed Planned Executive Office Development, its features and general layout, to the Planning Commission and City Council on the site.
- E. In signing the application form for the approval of a Planned Executive Office Development, the developer acknowledges receipt of a copy of Section 213-35 of the Zoning Ordinance and all pertinent Planning Commission regulations and guides. It is expected that a developer will be familiar with the content of all regulations so that misunderstandings and wasted effort can be kept to a minimum.
- F. Consultation with other appropriate City agencies by the developer is recommended before preparation of plans for tentative approval.
- G. Consultation with the Planning Division is encouraged, but no representation of the Planning Division shall be binding on the Planning Commission.

- H. The developer should review the Statement of Objectives to assure that his proposal is consistent with the announced land development policies of the City of Meriden.
- I. The developer shall prepare the necessary plans for submission of an application for Tentative Approval of a Planned Executive Office Development.

5.0 Project Financing

Evidence of financial ability to assure completion of the development as proposed. Such evidence may take the form of "Profit/Earning" reports, letters from financial institutions or other information that illustrates the long term financial capacity of the company.

The data shall be presented in an executive session of the Planning Commission and in a manner so as to clarify financial stability without providing confidential data unnecessary to satisfy the Commission inquiry.

6.00 Application for Tentative Approval

The application for Tentative Approval shall be executed by or on behalf of the landowner and filed in duplicate with the Planning Commission with filing fee in the amount of One Hundred and Fifty (\$150.00) Dollars. The applicant shall be responsible for all public hearing costs, transcript preparation, newspaper advertising and publishing costs, and shall post a cash deposit and authorization for disbursement by the Planning Commission with the Planning Commission in the amount of One Thousand (\$1,000) Dollars to assure payment of all of the aforementioned costs. The applicant shall remain liable for all costs and the Planning Commission may require an additional deposit before further processing of an application if the Planning Commission anticipates that costs may exceed One Thousand (\$1,000) Dollars. The application for Tentative Approval shall be filed at least fifteen (15) days prior to a regular Planning Commission meeting and shall include the information as required on Form P.E.O.D.-3.

7.00 Planning Commission Review

The City Planning Commission may solicit advice and comment from the City Engineer, Board of Education, Park and Recreation Commission, Fire Marshal, Water Department, Physical Services, Police or any other public agency or official which has programs or activities which might be affected by the proposed development. Specific comments on soil erosion, sediment control and storm water management may be sought from the Southwest Conservation District.

The Planning Commission will review the proposal for consistency with Standards and Criteria for Planned Executive Office Development of the City of Meriden Zoning ordinance.

The Planning Commission may require additional data over and above the minimum requirements listed on P.E.O.D. -3.

The Commission will hold a Public Hearing and if required per Section 213-35J (5) of the Zoning Ordinance, transmit its report to the City Council. The application for tentative approval shall include a certified map (scale: 1" = 100') identifying all properties within 500' in all directions of the perimeter of property proposed for the P.E.O.D. Such map shall include all property owners' names and mailing addresses.

8.00 Application for Final Approval

An application for final approval may be filed for all land included in a plan, or for a section thereof, after tentative approval of a plan by the Planning Commission and City Council. Said application shall be filed with the Planning Commission at least fifteen (15) days prior to a regular Planning Commission meeting. The application shall include the information required on Form P.E.O.D. -5 and an appropriate performance bond or other guarantee to assure completion of the open space and other improvements.

9.00 Bonding of Improvements

The Planning Commission may require bonds to assure completion of public utilities, soil erosion and sediment controls, or other improvements, and to assure that the development is completed as finally approved. (Amended 5/14/86)

If the Planning Commission accepts performance bonds, the bonds shall be for a minimum period of two (2) years and shall be renewed periodically as necessary and as required by the Planning Commission. If a bond is not renewed, the Planning Commission may demand that under no circumstances shall further building permits or Certificates of Occupancy be issued and no unoccupied building shall be used or occupied for any purpose not specifically authorized by the Planning Commission. The Planning Commission may seek appropriate court orders or civil or criminal penalties.