

5.0 BASIC STANDARDS

Section 5.1 Purpose

The use of land, buildings, and structures, within the Town of Woodbridge, shall be established and constructed so as to conform to this Section and these Regulations. These standards establish certain nuisance factors that, if committed or exceeded in the use of land, buildings, and/or structures, will be detrimental to the use, enjoyment and value of other land, buildings and structures and will be detrimental to public health, safety, and welfare.

Section 5.2 General Requirements

The following general regulations pertaining to lots, yards, visibility at intersections, height limits and dwellings are applicable to all zones and are to be applied in addition to the specific requirements of the applicable zone.

A. Hours of Outdoor Construction (make consistent with Ordinance #Chapter 315)
Unless otherwise explicitly allowed by the Commission, outdoor construction shall only occur between the hours of 7am and 5pm Monday through Friday.

B. Continuation of Use
Any building, use of land, or building lawfully existing on the effective date of the amendments set forth in these Regulations, or any amendments thereto, or authorized by a lawful permit issued prior to such effective date, which does not conform to the provisions of these Regulations for the Zoning District in which it is located, is a non-conforming use and may be continued. Such use may not be extended, expanded, or enlarged in scope, area, or intensity except with the approval of the Zoning Board of Appeals.

The only non-conforming use that may be continued is a use that was legal and effective as of the date of the original adoption of these regulations (December 24, 1932), or prior to the effective date of any amendment that caused the use to become non-conforming. Such use shall have continued in existence and/or not replaced by any other use up to the effective date of amendments set forth in these Regulations.

C. Change in Use

A change of use may be allowed subject to Zoning Permit approval provided that:

1. The proposed use does not require Special Exception approval;
2. No significant site work is required, and;
3. The required parking is currently available.

A non-conforming use may be changed to another non-conforming use, subject to approval by the Zoning Board of Appeals, with the following conditions:

- a. The proposed use will not have an increased impact upon the surrounding area;
- b. The number of required parking and loading spaces will not increase, and;
- c. The amount of impervious surface will not increase.

Once changed to a more conforming use, no use shall be changed again to a less conforming use. Current bulk standards of the underlying zone shall apply.

Section 5.3 Environmental Conditions

A. Preservation of Special Features

The applicant shall preserve special features that enhance the value of a development and/or a community. Special features to be preserved include, but are not limited to, large individual healthy trees, groves or stands of healthy trees; brooks, streams, ponds, creeks, waterfalls, lakes, wetlands, and their adjacent buffer areas; historic landmarks; scenic vistas, overlooks, and ridge lines, stone walls; slopes equal to, or greater than 35%.

The planning and design of the site, including related streets, drainage, and other improvements, shall provide for preservation of natural features of the site by:

1. Avoiding cuts or fills that result in potential soil erosion and excessive tree removal that disturb water resources;
2. Avoiding relocation of or encroachment upon natural wetlands, watercourses, and their buffer areas;
3. Avoiding removal of healthy mature trees, de-

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sirable woods, and other vegetation, particularly those existing plant materials that serve as wind barriers in the winter or offer passive cooling of buildings in the summer;

4. Minimizing driveway, road width, and curbing to reduce necessary clearing, thus retaining the natural landscape;

5. Identifying special features on the topographic maps submitted in accordance with these Regulations.

B. Stone walls

The preservation of stone walls is important in maintaining the character of the Woodbridge country landscape. To the extent possible, existing stone walls shall be preserved and maintained and shall be used in demarcating property lines. Where the preservation of a stone wall is not possible, the wall shall be relocated on the lot. The Commission may require the creation of conservation easements or similar instruments to insure long-term protection of stone walls.

C. Alternative Preservation Plans

Should the applicant propose to remove, alter, or in any way change the features described above, he/she shall submit documentation acceptable to the Commission demonstrating that the proposed plans to preserve special features are reasonable.

D. Air Pollution

No dust, dirt, fly ash, smoke, gas, fumes, or odors shall be emitted into the air from any lot so as to endanger the public health and safety, to impair safety on, or the value and reasonable use of any other lot, or to constitute a critical source of air pollution or to create a nuisance.

E. Danger

No material that is dangerous due to explosive potential, extreme fire hazard or radioactivity shall be used, stored, manufactured, processed, or assembled except in accordance with applicable codes, ordinances and regulations of the Town of Woodbridge, State of Connecticut, and Federal Government.

F. Noise

(See Code of Ordinances, Chapter 315 enforced by the Woodbridge Police Department)

Section 5.4 Refuse and Pollution

A. Dumpster & Solid Waste Disposal Location and Design for Non-Residential Uses All or other waste materials shall be dumped on any lot except as provided for in these Regulations.

1. All hazardous materials and waste chemicals shall be stored inside on an impervious floor with some form of secondary containment;

2. Solid waste material shall be stored in an appropriately sized, covered, solid waste dumpster or other water-tight container that is plugged to prevent the release of any liquids;

3. Waste material shall be disposed of by a licensed waste hauler in accordance with all applicable federal, state, and local laws and Regulations;

4. All servicing of vehicles and equipment shall be conducted indoors on an impervious surface;

5. There shall be absolutely no discharges of motor vehicle fluids or detergent chemicals to the environment;

6. If the property is located within the West River Watershed or an Aquifer Protection Area, the RWA shall be notified of any spills of hazardous materials;

7. RWA inspectors shall be granted access to any property located within the West River Watershed or an Aquifer Protection Area during the Authority's annual inspection program;

8. All fuel, oil, paint, and other hazardous materials stored on-site shall be placed in a secondary container and kept in a locked indoor area with an impervious floor when not being used;

9. If fuel for construction equipment is stored on-site, it shall be placed in a secondary containment system in a secured area;

10. Any on-site fueling and repairs shall be conducted over a portable spill containment system;

11. A supply of absorbent spill response material shall be kept on-site to clean up any spills of hazardous materials;

12. The RWA shall be promptly notified of any spills of hazardous materials occurring within any public water supply watershed or aquifer protection zone.

Excavation, Removal, Filling, Grading, and Processing of Earth Products (See Section 3.3.N)

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Section 5.5 Sediment and Erosion Control Regulations

A. Purpose

Sedimentation and erosion controls shall be installed whenever soil disturbance may cause sedimentation on or erosion of neighboring property and/or the deposition of sediment into public roadways, the public water supply, public storm management system, or into a wetlands or watercourse.

A soil erosion and sediment control plan shall be submitted with any application for development when the disturbed area of such development is cumulatively more than 1/2 acre.

Exemptions

1. A single-family dwelling that is not part of a subdivision of land may be deemed exempt by the Commission or its designated agent;
2. and Agricultural activities as protected in CT General Statutes, Chapter 8.

B. Procedures

Soil Erosion and Sediment Control Plans shall be submitted as part of a Special Exception or Site Plan application. Plans for development not requiring Special Exception or Site Plan review shall be submitted as part of a Zoning Permit application.

The Commission and/or its designated agent may refer any Soil Erosion and Sediment Control plan to any other town agency or its consultant for review and comment.

C. Application

The application shall include the following:

1. A soil erosion and sediment control plan shall provide for the adequate control of accelerated erosion and sedimentation and reduce the danger from stormwater runoff at the proposed site based on the best available technology, found in the Connecticut Guidelines for Soil Erosion and Sediment Control (2002), as may have been amended from time to time.

Alternative principles, methods and practices may be used with prior approval of the Commission. The plan may be submitted as part of a Special Exception or Site Plan application as set forth in these Regulations. Plans shall include:

- a. A narrative describing the proposed project; a schedule for grading and construction activities, including start and completion dates; sequence of grading and construction activities; sequence for installation and/or application of soil erosion and sediment control measures; and the sequence for final stabilization of the project site.
 - b. The design criteria, construction details, installation and/or application procedures, and operations and maintenance program for proposed soil erosion and sediment control measures and storm water management facilities.
2. A site plan complying with Application Standards and Procedures, and containing the following additional information:
 - a. The proposed alterations on the site, including cleared, excavated, filled, or graded areas;
 - b. The location of and design details for all proposed soil erosion and sediment control measures and storm water management facilities;
 - c. The sequence of grading and construction activities;
 - d. The sequence for installation and/or application of soil erosion and sediment control measures; and
 - e. 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.

D. Standards

The Soil Erosion and Sediment Control Plan shall meet the following minimum standards:

1. Plans for soil erosion and sediment control shall be developed in accordance with these Regulations using the principles outlined in Chapters 3 and 4 of the Connecticut Guidelines for Soil Erosion and Sediment Control (2002), as may have been amended from time to time;
2. The minimum standards for individual mea-

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asures are those in the Connecticut Guidelines for Soil Erosion and Sediment Control (2002), as may have been amended from time to time;

3. The design peak flow rates and runoff volumes to be used in association with the design and specification of erosion and sedimentation control measures shall be determined in accordance with Section 5.7 of these Regulations, and/or as determined by a generally accepted published engineering method, as applicable;

4. The Commission may grant exceptions to the minimum standards when requested by the applicant, if technically sound reasons are presented by a professional engineer, licensed in the State of CT;

5. All erosion controls shall be installed prior to the commencement of construction activities;

6. All stockpiles of excavated material remaining on-site for more than a month shall be temporarily seeded or covered;

7. Erosion controls shall be inspected regularly and immediately after each rainfall, as well as maintained and modified as necessary;

8. Hay bales proposed for use on paved surfaces shall be replaced with a combination of filter fabric, concrete blocks, and gravel, or by silt sack inserts;

9. If the property is located within a public water supply watershed:

a. The RWA shall be notified, in writing, three days prior to the start of any construction activity;

b. RWA inspectors shall be granted access to the site to conduct routine inspections.

E. Conditions of Approval

The Commission, or its designated agent, may include conditions deemed necessary, including, but not limited to:

1. Installation of measures necessary for sediment and erosion control prior to start of construction;

2. Receipt of a bond to cover costs of measures required to control soil erosion and sedimentation; and

3. Progress reports from the applicant assuring effective installation and proper maintenance of controls.

F. Inspections

Inspections shall be made by the Commission and/or its designated agent(s) during development to ensure:

1. Compliance with the approved plan, and

2. Control measures and facilities are properly performed, installed, and maintained.

Section 5.6 Reserved for Future Use

Section 5.7 Stormwater Management

A. Purpose

The purpose of this section is to provide guidance for land use and development, and the planning and design approaches that are necessary to protect the waters of the Town from the potential adverse impact(s) of stormwater runoff. The protection and preservation of these waters is in the public interest and is essential to the health, safety, and welfare, and safety of the citizens of the Town of Woodbridge.

The intent of these Regulations is to establish requirements for Stormwater Management Plans. Such plans should include design practices and technical standards that address any proposed change to the land that may alter hydrologic conditions. Stormwater Plans should also:

1. Preserve pre-development site hydrology to the extent possible;

2. Reduce the average total suspended solids (TSS) loadings by 80%;

3. Incorporate stormwater treatment systems and Best Management Practices (BMP) to facilitate the removal of pollutants;

4. Manage runoff velocity and volume such that the physical and biological character of the existing drainage system(s) is maintained or improved.

B. Applicability

No person shall develop land without having provided stormwater management measures that control or manage runoff from such development, except as provided within these Regulations. The stormwater management measures must be consistent with the 2004 Connecticut Stormwater Quality Manual, as

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may have been amended from time to time.

A Stormwater Management Plan shall be prepared for all site development proposals, when the Commission determines it that changes to the land associated with the proposal may significantly alter hydrologic conditions resulting in potential pollution and/or other adverse impacts to the ground water or other natural resources of the Town of Woodbridge.

All site development plans shall include a Stormwater Management Plan.

C. General Requirements

Stormwater Management Plans shall include:

1. A narrative describing the project, the objectives of the Stormwater Management Plan including the potential impacts resulting from the proposed development, and a description of the practices, techniques, structures, and facilities proposed in the Stormwater Management Plan to mitigate such impact(s);
2. The existing features and proposed improvements;
3. The potential impacts resulting from the proposal or activity;
4. A description of the practices, techniques, structures, and facilities proposed to mitigate such impacts;
5. A construction schedule including phasing and sequencing;
6. Identification of the Owner(s) of the property on which the development is proposed and identification of the Applicant submitting an application for approval and/or a permit;
7. Identification of the Responsible Person(s) for implementation of the Stormwater Management Plan during the construction period of the development including mailing address, 24-hour contact telephone number(s), facsimile number(s) and email address;
8. A description of the procedures to be implemented in the case of emergency environmental or severe rain-fall events during the construction period of the development;
9. Identification of all known local, State and/or Federal regulatory approvals and/or permits that may

be required to be obtained for the development;

10. A map based on United States Geological Survey quadrangle mapping depicting the following:

- a. Site of the development and vicinity,
 - b. Sub-regional drainage basin(s),
 - c. Identifying hydrologic unit code(s) within which the site of the development is located;
11. A description of the surface water and ground water resources, including identification of water quality classifications and the presence of impaired water-bodies as identified by the Connecticut DEEP, on and in the vicinity of the site of the proposed development;
12. A description of the development, construction limitations and constraints of the site of the proposed development including:
- a. Areas of exposed bedrock.
 - b. Areas of shallow depth to bedrock surficial soils as defined by the U.S.D.A. Natural Resources Conservation Service Soil Survey.
 - c. Areas of high erosion hazard surficial soils as defined by the U.S.D.A. Natural Resources Conservation Service Soil Survey.
 - d. Areas of ground surface slopes greater than or equal to twenty-five (25) percent.
 - e. Areas of potential shallow depth to ground water.

D. No increase in stormwater peak flows will be allowed unless downstream increases are compatible with an overall flood plain management system. The following items should be considered in determining whether increased peak flows are compatible with an overall flood plain management system:

1. Timing of peak flows from sub-watersheds;
2. Increased duration of high flow rates;
3. Stability of the downstream channels;
4. Distance downstream that the peak; discharges are increased;
5. Comparison of the peak flow rates from the pre- to post-development condition for the 1, 2, 10, 25, 50, and 100-year 24-hour storm events.

When stormwater detention structures are required, they shall be designed so that the peak flow after development shall not exceed the pre-construction

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peak flow.

The applicant shall furnish calculations that demonstrate there would be no increase in peak flow rates from the pre-development to the post-development condition for the 1, 2, 10, 25, 50 and 100-year frequency, 24-hour duration Type III Distribution Storms, as computed with Technical Release #55, Urban Hydrology, Engineering Division, Soils Conservation Service, USDA, January 1975, as amended, TR-20, HEC-1, or by use of other methods conforming to sound engineering practice as set forth in this section.

E. Design Guidance and Recommendations

The following documents, incorporated in these Regulations by reference, give guidance and recommendations for the analysis and design of practices, techniques, structures, and other facilities to be incorporated in the Stormwater Management Plan. Other standards of practice, engineering analysis and design, computational or sizing methodologies may be used upon review and approval of the Commission.

The following documents are incorporated in these Regulations by reference:

1. Connecticut Council on Soil and Water Conservation and Connecticut Department of Environmental Protection, Connecticut Guidelines for Soil Erosion and Sediment Control, Bulletin No. 34, 2002, as may have been amended from time to time.
2. Connecticut Department of Transportation, Connecticut Department of Transportation Drainage Manual 2000, as may have been amended from time to time.
3. Connecticut Department of Environmental Protection, 2004 Connecticut Stormwater Quality Manual (Final Draft), as may have been amended from time to time.

F. Design Practices and Technical Standards

Stormwater Management Plans shall incorporate the design practices and technical standards appropriate for the site conditions and proposed development.

The Commission, or its designated agent, may require additional design practices and/or technical standards

to be incorporated in the Stormwater Management Plan where a proposal will discharge stormwater runoff to an area identified as a sensitive surface water, ground water or other natural resource, which is impaired and/or experiencing existing flooding, stream channel instability or water quality problems.

G. Site Planning and Design

Site planning and design practices, best management practices (especially those referred to as non-structural practices), Low Impact Development (LID), and Alternative Site Design techniques intended to mitigate the effects of changes to the land hydrologic conditions, shall be considered in the design of a development proposal.

These planning and design practices should:

1. Protect and preserve a site's natural features and systems including drainage systems, resource protection and buffer areas;
2. Preserve vegetation;
3. Avoid creating steeply sloped areas;
4. Avoid excessive site grading;
5. Minimize the area of impervious and managed surface coverage including sidewalks, streets, driveways, and walkways;
6. Encourage the disconnection of impervious and managed surfaces;
7. Minimize changes in surface water drainage patterns;
8. Promote temporary storage of stormwater runoff;
9. Promote infiltration of stormwater runoff;
10. Reduce increases in volume of stormwater runoff and changes in magnitude, frequency, and duration of stormwater discharges to receiving waters;
11. prevent and minimize impacts to surface and ground water resources;
12. Reduce or eliminate the use of curbing;
13. Reduce use of storm sewers;
14. Encourage use of permeable paving materials where practicable;
15. Encourage use of bio-retention basins, rain gardens and swales.

H. Stormwater Infiltration (Also see Sec-

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tion 370 of Woodbridge Ordinances)

The guidance and recommendations given in the 2004 Connecticut Stormwater Quality Manual, as amended, shall be the minimum used in the design of stormwater infiltration practices and techniques, and structures or facilities. Protection and improvement of the water supply is essential.

Where stormwater runoff infiltration is proposed, the Commission or its designated representative will require that subsurface investigations including field testing (test pit or soil borings, and infiltration tests) be made of the hydro-geologic conditions of the site and vicinity of the infiltration practice, technique, structure, or facility. Field testing shall be performed by a licensed Professional Engineer that is registered in the State of Connecticut.

If a stormwater infiltration practice, technique, structure, or facility is also intended to function to control peak rates of discharge of stormwater runoff, the practice, technique, structure, or facility shall be designed in accordance with the recommendations and guidance given in the Connecticut Department of Transportation Drainage Manual 2000, as may have been amended from time to time.

1. Concentrated Stormwater Runoff

a. Where concentrated stormwater runoff is proposed to be discharged to a stormwater collection and conveyance system, man-made or natural channel, culvert, bridge, or other hydraulic structure due to site and design conditions, the hydraulic adequacy of the system, channel and/or structure shall be analyzed by the applicants' engineer for the 1, 2, 10, 25, 50 and 100-year, 24-hour storm events.

b. Where concentrated stormwater runoff is proposed to be discharged directly to the ground surface or directly to a wetland or watercourse, the stability of the outlet at the discharge location and the requirement for outlet and slope protection measures beyond the discharge location shall be determined by the design engineer, and subject to the review and approval of the Commission or its designated representative and/ or the Town of Woodbridge IWA.

c. Where it is determined that a system, channel, structure, or discharge outlet location is hydraulically inadequate under existing conditions and/or will be hydraulically inadequate due to the proposed design, the Applicant shall:

i. Improve stormwater collection and conveyance systems to a condition where the systems are hydraulically adequate to convey the post development peak flow for the 25-year 24-hour storm event.

ii. Improve man-made or natural channels to a condition where the channels are hydraulically adequate to convey the post development peak flow for the 25-year 24-hour storm event.

iii. Improve culverts or bridges to a condition where the culvert or bridge will safely convey the design post-proposal, or activity peak discharges as determined by the design engineer and approved by the Commission or its designated representative,

iv. Improve the stability of the outlet of the conveyance system, channel, or structure, and install outlet protection measures at the discharge location, and slope protection measures beyond the discharge location if applicable, to a standard or degree that is deemed to be acceptable to the Commission or its designated representative, or

v. Develop a site design that attenuates post construction peak rates of discharge equal to or less than levels of existing peak rates of discharge for the 1, 2, 10, 25, 50 and 100-year, 24-hour storm events.

vi. The applicant shall be responsible for the determination of the necessity of any and all additional permitting, obtaining said permitting, and/or the applicability of other standards that may exist from the Town of Woodbridge IWA, the Connecticut Department of Energy and Environmental Protection (DEEP), FEMA, the Connecticut Department of Transportation (CT DOT), or any other agency which may have jurisdictional authority.

2. Stream Channel Protection

Where a development proposal will discharge stormwater runoff to a natural channel, the following criteria for stream channel protection shall be incorporated in the design of the proposal where the Commission has determined that stream channel

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protection measures are required.

a. When stormwater runoff is discharged to a natural channel, the Applicant shall either:

i. Improve the channel using methods and materials that will minimize the impacts on the physical, chemical, and biological integrity of the natural channel system, and will preserve the natural channel characteristics to the maximum extent practicable, or;

ii. Develop a site design that meets one or both of the “over-control” method criteria for stream channel protection by either:

a) Attenuating the design post proposal or activity 24-hour duration, 2-year recurrence interval peak rate of discharge of stormwater runoff to the channel to one-half of its pre-development magnitude or less, or;

b) Attenuating the post construction, a 24-hour duration, 2-year recurrence interval peak rate of discharge of stormwater runoff to the channel to be less than or equal to the pre-development 24-hour duration, 1-year recurrence interval peak rate of discharge of stormwater runoff to the channel.

b. Where concentrated stormwater runoff is discharged to a natural channel that is experiencing channel instability under existing conditions, or has been identified by the Commission, as requiring additional protection, the Applicant shall either:

i. Improve the channel using methods and materials that will minimize the impacts on the physical, chemical, and biological integrity of the natural channel system, and will preserve the natural channel characteristics to the maximum extent practicable, or

ii. Develop a site design that provides extended detention of the design post proposal or activity 24-hour duration, 1-year recurrence interval peak rate of discharge of stormwater runoff to the channel for a minimum period of 24-hours.

3. Over-Bank Flooding Protection

Where stormwater runoff is proposed to be discharged from the site, the hydraulic adequacy of hydraulic structures and/or receiving channels to convey the design post proposal or activity 25-year,

50-year and 100-year recurrence interval peak rates of discharge shall be verified.

Where it is determined by a professional engineer, licensed in the State of CT, that a structure, or receiving waterway is hydraulically inadequate under existing conditions and/or will be hydraulically inadequate due to the development proposal, redevelopment proposal or activity, the Applicant shall either:

a. Improve the hydraulic structure or waterway to a condition where the design post proposal or activity 25-year, 50-year and 100-year recurrence interval peak rates of discharge can be conveyed, or

b. Develop a site design that will attenuate the design post proposal or activity 25-year, 50-year and 100-year recurrence interval peak rates of discharge to be less than or equal to the design existing condition 25-year, 50-year and 100-year recurrence interval peak rates of discharge.

4. Specific Data Required

All storm drainage calculations must be certified by a Professional Engineer, licensed in the State of CT. The Commission may require that the preparation of the Stormwater Management Plan include other professionals in other disciplines such as landscape architecture, environmental sciences.

The Stormwater Management Plan shall be submitted with each application to the Planning and Zoning Commission for approval.

Design information shall:

a. Include drawings presented at a scale that will allow for clear identification of all existing conditions and post construction conditions on and in the vicinity of the site of the development;

b. Certification by a professional engineer, is licensed in the State of Connecticut;

c. Be based upon a survey prepared by a licensed land surveyor to A-2, T-2 (on-site) and T-D (offsite) standards, unless otherwise authorized by the Commission or its designated representative, and shall include, as applicable:

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General Data

- i. Property boundaries;
- ii. Adjoining property owners;
- iii. Buildings and other structures;
- iv. Zoning District(s) and/or boundaries;
- v. Existing and proposed land uses;
- vi. Existing ground cover conditions including vegetation types;
- vii. Proposed ground cover conditions, including proposed clearing limits;
- viii. Existing and proposed impervious surface and managed surface coverage areas;
- ix. Existing and proposed easements including those for access, utilities, drainage, maintenance and conservation or resource protection purposes;
- x. Existing and proposed areas subject to deed restrictions including those for conservation or resource protection purposes.

5. Engineering Data Required

- a. Existing ground surface elevation contours preferably referenced to the North American Vertical Datum of 1988 (NAVD88) and proposed ground surface elevation contours. Benchmark(s) should also be shown;
- b. Utility company facilities and services;
- c. Drinking water supply reservoir and well locations;
- d. Ephemeral, intermittent, and/or perennial watercourses;
- e. Surface water bodies;
- f. Special Flood Hazard Areas or boundaries and base flood elevations where determined, floodways or boundaries and/or stream channel encroachment lines;
- g. Resource protection areas and boundaries;
- h. Aquifer protection district areas or boundaries;
- i. Public water supply watershed areas or boundaries;
- j. Areas of ground surface slope greater than or equal to twenty (20) percent;
- k. Areas of exposed bedrock;
- l. Locations of stormwater discharges.

6. Hydrological and Soil Data Required

- a. Inland Wetland areas or boundaries, as field delineated by a Certified Soil Scientist and field located by a land surveyor registered in the State of CT;
- b. Inland Wetland regulated areas or boundaries;
- c. Surficial soil types classified by hydrologic soil group as defined by the U.S.D.A. Natural Resources Conservation Service Survey ("USDA Survey");
- d. Areas of shallow depth to bedrock surficial soils as defined by the USDA Survey;
- e. Areas of high erosion hazard surficial soils as defined by the USDA Survey;
- f. Areas of potential shallow depth to groundwater;
- g. The locations of all subsurface investigations;
- h. Surface water drainage patterns and watershed and/or catchment boundaries;
- i. The locations of all stormwater collection, conveyance and management systems and other hydraulic structures including, culverts, bridges, and dams;
- j. Tributary land areas to appropriate points for purposes of hydrologic and hydraulic analysis and hydrologic and hydraulic design of proposed practices and techniques, and structures or facilities;
- k. Travel time component and time of concentration flow paths for purposes of hydrologic and hydraulic analysis and design of proposed practices and techniques, and structures or facilities;
- l. Subsurface soil investigation information for the design of all practices, techniques, structures, and facilities where the determination of soil classifications and depths to groundwater, restrictive soil layers and/or rock are required, and where the determination of particle gradation analyses and in-situ soil properties including soil infiltration rates are required;
- m. A description of design methodologies and computer models used, and hydrologic, hydraulic and water quality design computations for all practices and techniques, and structures and facilities;
- n. Structural design and supporting information and geo-technical design and supporting information for certain stormwater management system components including, storm sewers, channels, outlet protection measures, culverts, bridges, dams, spillways, outlet works and other structures, as required by the

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Commission and/or a Professional Engineer, licensed in the State of CT, acting as agent on behalf of the Commission ;

o. Drawings including plans, profiles, sections, and typical details of all stormwater management system components at adequate scale(s) and containing sufficient detail to clearly depict the intent of the design and the details of construction and/or installation;

p. A hydrologic study of pre-development site conditions, including peak flow rates and volumes for the 1, 2, 10, 25, 50 and 100-year, 24-hour storm events;

q. Post Proposal or Activity Stormwater Management Operation and Maintenance Plan including:

i. A description of the operation and maintenance tasks and an implementation schedule;

ii. Identification of the Responsible Person(s) for implementation of the Stormwater Management Operation and Maintenance Plan including mailing address, 24-hour contact telephone number(s), facsimile number(s) and email address;

iii. Agreements, declarations of covenants and restrictions, easements and/or other legal instruments governing the requirements for operation and maintenance of all post construction proposal or activity stormwater management measures as required by the Town Plan and Zoning Commission and the Town of Woodbridge.

r. Evidence of acquisition of all applicable federal and state approvals (e.g., copies of DEEP permit registration certificates, DEEP Dam Safety Registration Certificate for stormwater impoundments, etc.)

7. The applicant shall submit the following data for review by the Commission and/or its designated agent:

a. Topographic Contour Map(s) showing drainage area(s);

b. Narrative and computations including, but not limited to, the following:

i. Method used to calculate stormwater runoff;

ii. Runoff characteristics of the property pre- and post-development;

iii. Hydrologic calculations for the pre- and post-development conditions, for the 1, 2, 10, 25, 50, and 100-year 24-hour storm events;

iv. Maximum velocity and quantity at point(s) of discharge from the system;

v. Design calculations for all drainage piping and structures. Drainage piping and structures shall be designed to convey the post development peak flow for the 25-year 24-hour storm event.

c. Narrative and computations for detention structures including, but not limited to, the following:

i. Inflow and outflow hydrographs for detention area, for the post development 1, 2, 10, 25, 50, and 100-year 24-hour storm events;

ii. Maximum storage volume of the detention facility;

iii. Design of spillway or other measures for the release of excess flows beyond that of the design capacity of the structure, which shall be designed to convey the post development peak flow for the 100-year 24-hour storm event;

iv. Flood routing of all runoff greater than the design capacity of the detention facility. An outlet or spillway shall be provided for the detention facility that is designed to convey the post development peak flow for the 100-year 24-hour storm event;

v. Time required for the facility to drain completely, if applicable;

vi. Materials used in facility construction;

vii. Methods employed to avoid clogging the discharge mechanism, and the maintenance requirements/schedule for the proposed stormwater management measures;

viii. Safety measures.

Exemptions

A. Upon written request, the Commission by a 2/3 vote, may waive these Regulations in whole or in part. No waiver request shall be approved that would cause an adverse impact to the surface water, ground water and/or other natural resources of the Town of Woodbridge. The Applicant shall demonstrate to the satisfaction of the Commission or duly authorized agent, that approval of a waiver request will meet this standard.

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B. Activities defined as Agricultural Uses shall be exempt from this section of the Regulations.

C. Development that does not require Special Exception and/or Site Plan approval are exempt from demonstrating that there will be no increase in runoff.

8. Standards and Criteria for Decision

No stormwater management plan may be approved without a finding that the plan is consistent with these Regulations and the following general criteria:

a. 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;

b. Pollutants shall be controlled at their source to the maximum extent feasible to contain and minimize contamination. Methods include but are not limited to:

i. Sweeping of pavements, especially in the early spring the use of sediment basins prior to infiltration, and

ii. Encouragement of sheet flow to filter strips.

c. Stormwater management systems shall be designed and maintained to manage site runoff to eliminate surface and groundwater pollution, prevent flooding and, where required, control peak discharges and provide pollution treatment;

d. Stormwater management systems shall be designed to collect, retain, and treat the first inch of rain on-site, to trap floating material, oil, and litter. On-site storage methods include but are not limited to landscaped depressions, grass swales, infiltration trenches and retention or detention basins;

e. Stormwater management systems shall use the best available technology to treat stormwater quality prior to off-site discharge. Stormwater shall be treated as recommended in the 2004 Connecticut Stormwater Quality Manual, as amended, including design of treatment practices for the Water Quality Volume or Water Quality Flow, as appropriate;

f. Stormwater runoff rates and volumes shall be controlled by slowing runoff velocities and encouraging infiltration. BMP methods for controlling runoff and encouraging infiltration include, but are not limited to:

i. The minimization of impervious surfaces,

ii. The use of grass or vegetative filter zones, landscape depressions, slotted curb spacers, perforated pipes for conveying stormwater,

iii. Establishment of buffers from streams, wetlands, and water bodies, and

iv. Any combination of methods, where appropriate.

g. Stormwater treatment systems shall be employed where necessary to ensure that the average annual loadings of total suspended solids 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 total suspended solids from the site on an average annual basis. BMP methods for stormwater treatment include infiltration through vegetative strips, grass swales and detention basins.

9. Maintenance Covenants

Upon approval of the application but prior to the issuance of a Zoning Permit, the applicant shall file Covenants on the Land Records committing current and future landowners to ongoing maintenance of the approved storm-water treatment facilities. At a minimum the covenants shall include:

a. Provisions for annual inspection and maintenance of the facilities;

b. Submittal of annual reports to the Commission, or its designated agent, documenting inspection dates, observations, and actions;

c. An access easement to Town personnel for "inspection" purposes.

Section 5.8 Lot, Block, and Building Configuration

A. Front Yards / Build-To Lines

Specific to Zones T3 and SD1

The purpose of this section is to create a uniform location for buildings by requiring a build-to line.

To achieve a more uniform street wall, where buildings exist on adjacent lots, the Commission may

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require that a proposed building match one or the other of the adjacent front yard setbacks and heights rather than the provisions of these Regulations.

B. Yard Projections

Nothing in these Regulations shall prohibit the projection of up to one foot into a required yard of pilasters, belt courses, columns, sills, cornices, or similar architectural features, nor the planting of landscaping in such spaces. In the case of one-, two- and three-family homes existing at the effective date of this amendment, uncovered ramps required for handicapped accessibility may project as necessary into a required yard. The ramps should be compatible with the architecture of the structure and neighborhood. Uncovered ramps shall not be considered when calculating area coverage. In the case of one-, two- and three-family homes, unenclosed stoops or verandas and associated roof overhangs may project not more than six feet into any required setback. (See also Section 5.17.D Visibility at Intersections)

C. Rear Lots

No building or structure shall be built on any lot unless the lot has a frontage of at least 20 feet on a public street, or is in an approved subdivision, unless otherwise authorized by the Town Plan & Zoning Commission as a building on an unaccepted street.

Access to the rear lot shall:

1. Not exceed a length of 500 feet;
2. Not be greater than 20 feet wide at any point;
3. Not be included in the minimum required lot area;
4. Contain a driveway from the public street to the building or structure;
5. Contain only one driveway and provide access for only one lot. The Commission may approve a shared access-way only where there is a crossing of an environmentally sensitive resource;
6. A maintenance agreement for shared access-ways shall be filed on the Town Land Records, and shall be incorporated into the deed of each lot that benefits from said access-way;
7. The maximum number of abutting access ways shall be two.

All rear lots created after the effective date of this amendment must comply with the following standards:

1. Each lot must be at least 50% larger than the standard minimum lot permitted in that zone.
2. Rear lots shall be limited to 15% of the total lots proposed for a subdivision and may only be approved in conjunction with a subdivision.

D. Non-conforming Lots, Buildings and Uses

These Regulations shall not prohibit the construction of an otherwise permitted structure on, or an otherwise permitted use of, any lot, the area or width of which does not meet the minimum area or does not meet the minimum width requirements of the zone in which it is located, provided:

1. The lot was of legal size on the date it was created as a lot; and
2. All setbacks, coverage and other zoning requirements can be met;
3. The owner of the lot presents satisfactory evidence of compliance with this section.

Existing buildings and appurtenances that do not conform to the provisions of these Regulations may continue in the same use and form until a Substantial Modification occurs or is requested, at which time the Commission shall determine the provisions of this Section that shall apply. The modification of existing buildings is permitted by Special Exception and/or Site Plan Approval if such changes result in increased compliance with the specifications of these Regulations.

Proposed increases to existing building coverage that do not comply with these Regulations must have an approved Special Exception for full build-out that meets these Regulations. The purpose of full build-out plans is to, where possible, limit curb cuts, link driveways, internal roadways, and green space on adjacent parcels. Such linkages and coordinated development between adjacent properties shall be required.

Exceptions: Where pre-existing non-conforming structures do not meet the front yard setback and/or the build-line as of the effective date of these Regu-

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ations, the applicant shall be exempt from complying with these requirements once when the proposed additional building coverage meets the following criteria:

Table 5.1 One-Time Additional Building Coverage Allowed	
Existing Building Coverage*	One-time Additional Building Coverage Allowed
1 to 10,000 sf	5%
10,001 to 50,000 sf	4% or 500 sf, whichever is greater
50,001 to 100,000 sf	3% or 2,000 sf, whichever is greater
100,001 to 250,000	2% or 3,000 sf, whichever is greater
250,001+	5,000sf

**As of the effective date of these Regulation, as amended, as shown on the Town Assessor's field card(s).*

D. Reconstruction

Any non-conforming building or structure which is destroyed or damaged by fire or casualty may be reconstructed and structurally altered, provided the cost of such reconstruction or structural alteration is less than sixty (60) percent of the fair market value of such property, as determined by a licensed real estate appraiser, and such reconstruction or alteration is commenced within 240 days of the dated of such damage or destruction. Nothing in these Regulations shall prevent the restoration of a wall or structural member declared unsafe by lawful authority.

F. Height Limitations

The building height limit shall be applied separately for each wing or other distinct portion of a building or structure.

When the finished ground level slopes away from the exterior wall, the vertical distance will be calculated based upon the lowest points within the area between the building and the lot line, or when the lot line is more than ten feet from the building, between the building and a point ten- feet from the building.

The height limitations of these Regulations may be exceeded as follows, provided that such features are only erected to such heights as are necessary to accomplish the purpose they are intended to serve:

I. A spire, tower or belfry on a religious institution, school, public library, or public museum provided

that:

- a. The height of the spire, tower or belfry shall not exceed 50 feet; and
- b. The total area covered by such features shall not exceed 10% of the roof area.

2. Cupolas or chimneys provided that:

- a. The height of the cupola or chimney shall not be more than 20% higher than the total building height allowed; and,
- b. The total area of such features which exceed the total building height limitation shall not exceed 5% of the roof area.

3. Flagpoles of up to 75 feet in height;

4. Roof-top equipment for non-residential buildings (such as HVAC equipment, ventilators, sky-lights, bulkheads, or similar features) provided that:

- a. Adequate and appropriate screening shall screen all rooftop mechanical equipment from view from the ground and adjacent buildings of equal or lower height shall be provided; and
- b. Such equipment which exceeds the total building height limitation shall not have a horizontal area greater than 5% of the roof area of the building on which it is located.

Gas station, Drive-in Teller and similar canopies that are accessory structures shall provide a minimum clearance of 14 feet and may not exceed 18 feet in

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height.

G. Lot Splits and Lot Line Revisions

All maps depicting, or deeds creating, a first division of property or Lot Line Revision must be reviewed and approved for zoning compliance by the Town Zoning Enforcement Officer prior to the filing of any such map or recording of any such deed on the Land Records, and shall not result in the creation of a rear lot, or a non-conforming lot.

Section 5.9 Site Amenities

A. Accessory Buildings

Detached accessory buildings:

No swimming pool, tennis court, or other recreational structure, including related improved areas shall be permitted in any required side or front yard of any residential zone.

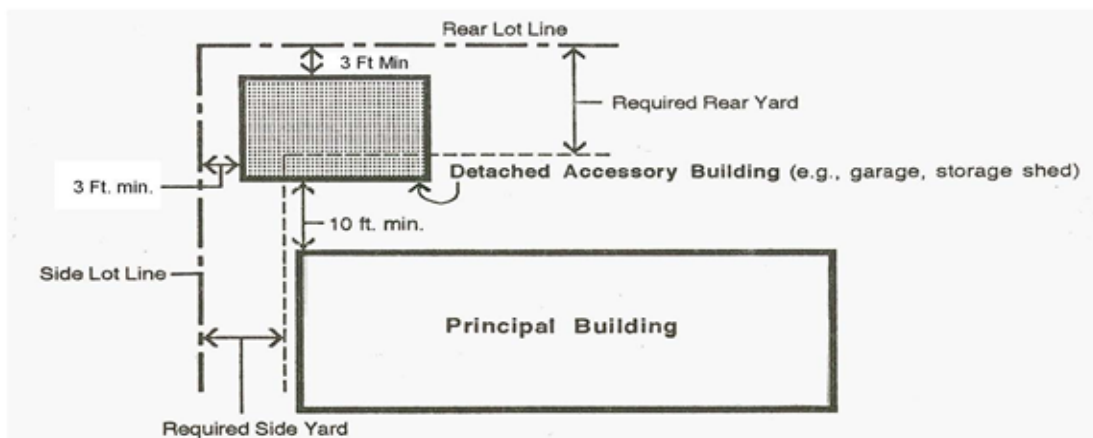


Figure 5.1 Location(s) of Accessory Buildings on Lot.

B. Landscape Standards

The following standards are intended to enhance the appearance and natural beauty of the Town and to protect property values through preservation and planting of vegetation, screening, and landscaping material. Specifically, these standards are intended to reduce excessive heat, glare, and accumulation of dust; to provide privacy from noise and visual intrusion; and to prevent the erosion of the soil, excessive run-off of drainage water, the consequent depletion of the ground water table, and the pollution of water bodies.

I. Landscape plans. Landscape plans in accordance with the following requirements shall be submitted with all site plans.

To the maximum extent possible, existing trees, vegetation, and site features such as stone walls, boulders,

or rock outcroppings shall be retained and protected. Existing healthy mature plant materials, especially trees, shall be preserved.

Existing conditions site plans shall show site features including flood hazard zones, existing drainage patterns, meadows, agricultural land, tee lines, hedge-rows, exposed ledge and stone walls, slopes 25% or greater, DEEP Significant Natural Communities, man-made features such as historic or archaeological sites and opportunities for scenic vistas and views.

Subject to any required Town approvals for placement in a Woodbridge right-of-way, any tree/plant selected to be planted in a Woodbridge right-of-way that is not listed below in Table 5.2 must be approved by the Commission:

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Table 5.2 List of Recommended Street Trees for Town Rights-of-Way

Species	Mature Size	Preferred for:	Other Considerations	Best Cultivars
English Oak, <i>Quercus robur</i>	40-60 ft	easy to transplant, tolerant	acorns, mildew problems	<i>Fastigiata</i> (upright forms for street planting)
Piedmont Flowering Cherry, <i>Prunus pulata</i>	20-35 ft	spring flowers, less wire interference	spreading habit, life expectancy	<i>Kwansan</i>
Serviceberry Maple, <i>Acer griseum</i>	20-30 ft	bark, fall color	availability, winter dieback	
Striped Redbud, <i>Cercis canadensis</i>	20-30 ft	flowers, highly tolerant	stem canker, seed pods	<i>Forest Pansy, Oklahoma</i>
Flowering Dogwood, <i>Cornus kousa</i>	20-30 ft	flowers later, more disease/insect-resistant	low branching, wide crown, fruit	<i>C. x rutgersensis</i> hybrids (<i>C. florida</i> x <i>C. kousa</i>), Milky Way
Black Cherry, <i>Prunus sargentii</i>	20-30 ft	spring flowers, bark		<i>Columnaris</i>
Whiteoak, <i>Quercus acutis-sima</i>	35-45 ft	better transplanter, longevity	availability, acorns	
Live Oak, <i>Quercus imbricaria</i>	50-60 ft	highly tolerant, longevity	acorns, size	
Japanese Maple, <i>Acer palmatum</i>	20-25 ft	red foliage, fall color, less wire interference		<i>Bloodgood</i>
Flowering Dogwood, <i>Cornus florida</i>	25-30 ft	white or pink spring flowers	dogwood borer, anthrac-nose	<i>Cherokee Chief/Princess, Cloud Nine</i>
Flowering Pear, <i>Pyrus calleryana</i>	30-35 ft	spring flowers, pyramidal habit	life expectancy, break-age	<i>Chanticleer, Aristocrat</i>
Black Locust, <i>Gleditsia triacanthos inermis</i>	30-70 ft	fall color, open habit	bean pod, fruit	<i>Shademaster</i> (plant seedless varieties only)
Eastern White Pine, <i>Ginkgo biloba</i>	50-80 ft	fall color	wet soil, plant only male trees	
Swamp Planetree, <i>Platanus xyrifolia</i>	70-100ft	highly tolerant, interesting bark	anthracnose, disease susceptible	<i>Bloodgood</i>
Eastern White Pine, <i>Tilia cordata</i>	40-70 ft	highly tolerant, pyramidal habit		<i>Greenspire</i>
Japanese Zelkova, <i>Zelkova serrata</i>	50-80 ft	resemblance to Elm, highly tolerant		<i>Green Vase, Village Green</i>
Red Maple, <i>Acer rubrum</i>	40-60 ft	fall color, columnar & spreading cultivars		<i>October Glory, Red Sunset</i>
Redstart tree, <i>Cercidiphyllumonicum</i>	20-40 ft	fall color	trunk splitting in young trees	
Red Maple, <i>Acer buergerianum</i>	25-35 ft	fall color, bark, drought tolerant, less wire interference	availability, winter dieback	
Red Maple, <i>Acer campestre</i>	25-35 ft	tolerant to stress, less wire interference	availability, heavy seed crops	<i>Queen Elizabeth</i>
Red Maple, <i>Acer ginnala</i>	15-20 ft	fall color, fragrant flowers, wide site tolerance	availability	
American Elm <i>Ulmus americana</i>	60-120 ft	high arching limbs	DED, plant resistant cultivars only	<i>Valley Forge</i>
American Hornbeam, <i>Carpinusolinian</i>	20-30 ft	fall color, less wire interference		
Black Walnut, <i>Corylus colurna</i>	40-50 ft	pyramidal habit, drought tolerant	availability, nuts	
Green Ash, <i>Fraxinus pennsylvanica</i>	50-60 ft	stress tolerant, fall color	borer, scale	<i>Patmore, Summit, Marshall Seedless</i>
White Oak, <i>Quercus palustris</i>	60-70 ft	easy to transplant, pyramidal habit, fall color	acorns, size	
Slender-bark Elm, <i>Ulmus parvifolia</i>	40-50 ft	bark, resistant to Dutch Elm disease, highly tolerant	availability	<i>Alleee</i>

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Section 5.10 Landscaping, Screening, and Buffer Areas

A. General Requirements

The following provisions shall apply to any use in T1, T2, T3, T4, SDI, P:

1. Landscaping materials, trees, and other plants required by these Regulations shall be installed according to accepted horticultural practices, all plants shall be maintained in a healthy growing condition. Any landscaping materials, trees, and/or plants that are in a condition that does not fulfill the intent of these Regulations shall be replaced in kind by the property owner during the next planting season. This includes, but is not limited to the survival of all plant material through at least one growing season;
2. The property owner shall maintain any screening fence or wall required by these Regulations in good condition throughout the period of the use of the lot;
3. All landscaping materials, trees, and plants adjacent to parking areas, loading areas or driveways shall be properly protected from damage by vehicles, with barriers, curbs or by other means;
4. To the extent possible, existing trees, vegetation, and unique site features, such as stonewalls, shall be retained, and protected. Existing healthy, mature trees, if properly located, shall be fully credited against the requirements of these Regulations;
5. Where it is not feasible to comply with the requirements of a front landscaped area or landscaped parking area due to lot size, shape, or existing structures, the Commission may approve the substitution of planters, plant boxes or pots containing trees, shrubs, and/or flowers to comply with the intent of these Regulations;
6. In cases where the edge of the pavement within a public right-of-way does not coincide with the front lot line, the property owner shall landscape the area up to the edge of the street pavement.

B. Front Landscaped Area

The purpose of landscaping is to enhance the appearance of the use on the lot, but not to screen the use from view. Where front yard landscaping is required, grass or other ground cover shall be used, and ap-

propriate trees and shrubs shall be included. At a minimum, one shade tree having a diameter at breast height (DBH) of two inches shall be planted within the front landscaped area for each 50 feet or fraction thereof of lot frontage.

In all T3, T4 and SDI zones, the required front yard, except for the driveway, shall be landscaped with grass or other suitable ground cover, trees, and/or shrubs.

C. Screening of Surface Parking Lots

1. In the absence of a building facade along any part of a frontage line, a Streetscreen shall be built in the same plane as the façade;
2. Streetscreens should be between 3-1/2 and 4-1/2 feet in height. The Streetscreen may be replaced by a hedge or fence. Streetscreens shall have openings no larger than necessary to allow for pedestrian and vehicular driveway access. Vehicular access openings shall not exceed 12'-0" for residential uses, nor 18'-0" for commercial uses.

D. Buffer Area

The purpose of the buffer area is to provide privacy, reduce noise where possible, avoid headlight glare, and visual intrusion into residential dwellings. A buffer area shall be required along all side and rear property boundaries of a Special Exception use, a T4 or a Special District-I lot abutting any lot in a residential zone (A, B or T3). Such buffer area shall comply with the following minimum standards:

Special Exception Uses in or adjacent to any Residential Zone	10 ft.
T4	10 ft.
SDI	50 ft.

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1. The buffer area shall be located within the boundaries of the subject property within the T4, or SDI Zone;
2. The buffer area may be located on abutting property in a residential zone provided:
 - a. The owner(s) of the abutting residential property(s) agree in writing;
 - b. Said agreement is recorded on the land records and runs with the land;
 - c. The Commission approves said agreement with such stipulations regarding maintenance and upkeep, as it deems necessary.
3. Where it is not feasible to comply with the minimum widths required above, due to lot size and shape or existing structures, the Commission may modify the width requirements provided that the buffer area meets the intent of these Regulations.
4. The buffer area shall be planted with evergreens of such type, height, spacing and arrangement as the Commission determines will effectively screen the activity on the lot from the neighboring residential area. At a minimum, the plantings shall consist of a double row of trees six feet in height planted at intervals of 15' on center. Non-evergreen planting may be included to supplement evergreen planting, but shall not take its place.
5. An earthen berm, wall, or fence of location, height, design, and materials approved by the Commission may be substituted for any portion of the required planting and/or buffer area.
6. Where the existing structure, topography and/or landscaping provide adequate screening, the Commission may modify the planting and/or buffer area requirements.

Section 5.11 Saved for future use

Section 5.12 Saved for future use

Section 5.13 Sidewalk Standards

The following provisions shall apply to any use in T1, T2, T3, T4, SDI, and P

- A. Sidewalks
 1. Sidewalks shall be required on both sides of the street in T4 zones. The minimum width of a side-

- walk shall be 5 feet;
2. Sidewalks shall be required on at least one side of the street in T3, SDI and P zones. The minimum width of a sidewalk shall be five (5) feet;
3. All sidewalks shall be constructed of concrete, and consistent with best practices;
4. The Commission may, at its discretion, waive these requirements, provided that the applicant gives due consideration to pedestrian safety.

Section 5.14 Fences and Walls

The following provisions shall apply to any use in T1, T2, T3, T4, SDI

- A. Fences shall be erected so that the outer, decorative surface faces away from the property on which the fence is erected.
- B. Fences and walls of any type located within the first 25 feet of the front property line shall not exceed four feet in height. Fences within required side and rear yards shall not exceed six feet in height.
- C. No fence or wall of any type shall be erected or maintained that unreasonably or dangerously interferes with the visibility to or from a driveway.
- D. Fences or walls over six feet shall be considered to be accessory structures and shall conform to all regulations in Section 4.

Section 5.15 Outdoor Lighting

The following provisions shall apply to any use in T1, T2, T3, T4, SDI

- A. Purpose
These regulations are intended to provide specific standards regarding lighting, to:
 1. Enhance public safety and welfare;
 2. Maximize the effectiveness of site lighting;
 3. Prevent unnecessary upward illumination;
 4. Avoid illumination of adjacent properties, and
 5. Reduce glare.
- B. Illumination Standards
All exterior lights and sign illumination shall be designed, located, installed, and directed to:
 1. Prevent direct glare or light trespass;
 2. Be shielded to the extent possible;
 3. Be contained in areas where needed, as deter-

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mined by the TPZ;

4. Maximize energy conservation;
5. Limit the illumination to the minimum amount adequate for the intended purpose of the lighting;
6. Shield direct light source(s) so that they shall not be visible at the property line at ground level or above when adjacent to residential property;
7. The Commission may require a photometric plan from the manufacturer or a qualified engineer that demonstrates compliance with A and B above.

C. Fixture Standards

To reduce off-site glare, lighting fixtures for all parking and pedestrian areas shall be:

1. Full cut-off type fixtures; or
2. Fully shielded/recessed fixtures where the lens is recessed or flush with the bottom surface.
3. Lighting fixtures for building security or aesthetics and any display purposes shall, except as may otherwise be approved, be:
 - a. Top downward (not upward or sideways);
 - b. Full cut off; or
 - c. Fully shielded/recessed.

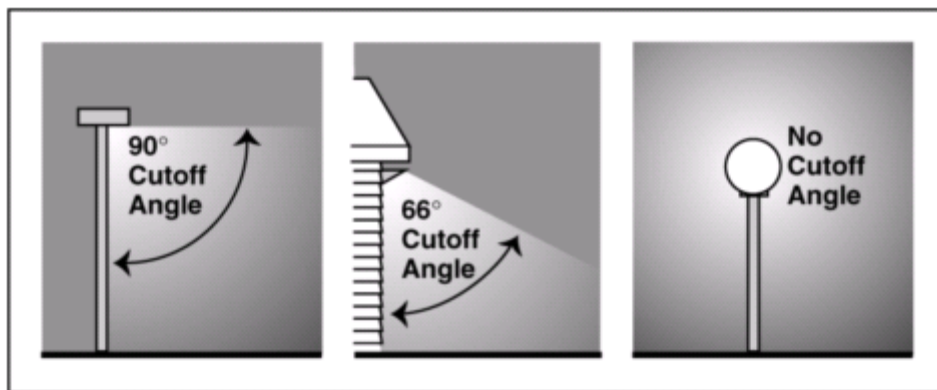
4. d. Height of light fixtures shall not exceed 18'-0".

D. Prohibited Lighting

1. The use of laser source light or any similar high-intensity light, when projected above the horizontal, is prohibited.
2. The operation of searchlights is prohibited.
3. Flashing and blinking lights are prohibited. Traditional seasonal and temporary event lighting, not to exceed 15 days in a year, however, are exempt from this prohibition.
4. Floodlighting is prohibited.

E. Hours of Operation

All lighting, other than for safety and building security purposes, shall be reduced after the close of business. The applicant may be required to control the lighting through timing devices and/or motion detectors.



Not Allowed

ALLOWED

Not Allowed

Figure 5.3 Luminaire Types

F. Foot-candle Standards for Exterior Lighting

On-site lighting is limited to between 0.5 and 1.5 foot-candles, unless specifically listed below or otherwise approved by the Commission.

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Table 5.4 Foot-candle Standards			
USE	Max. Exterior fc	USE	Max. Exterior fc
Accessory Building & Use	0.2	Lodging	
Adult-Oriented Establishment	2.4-0.6	Bed + Breakfast	0.2
Agriculture		Hotel/Motel/Inn	2.4-0.6
Commercial Farm	0.2	Rooming Boarding House	0.2
Community Garden	0.1	Manufacturing	0.8-0.2
Truck Garden/ Farm Stand	0	Motor Vehicle Use	
Animals		Gas Station, Service + Repair, Rental	2.4-0.6
Animal Day Care	0.2	Car Sales	20
Animal Training Facility	0.2	Heliport	3.6-0.9
Grooming	0.2	Home Occupation	0.2
Keeping of Animals	0.1	Library + Museum	0.8-0.2
Kennel	0.2	Natural Resource Removal	2.4-0.6
Stable	0.2	Office Building	2.4-0.6
Veterinary Hospital	0.2	Open Space Development	0.2
Business + Personal Service	0.8-0.2	Place of Public Assembly	0.8-0.2
Cemetery	0.1	Place of Worship	0.8-0.2
Civic Club, Lodge, or Association	0.8-0.2	Public Parking Lot + Public Utility	1.5-0.5
Community Residence	2.4-0.6	Public Use + Public Utility	0.2
Day Care		Residential (fewer than 4-du)	0.2
Day Care, Adult	2.4-0.6	Multi-Family Dwellings	2.4-0.6
Day Care Center, Nursery School, or Group Day Care Home	0.8-0.2	Research, Development + Medical Laboratory	0.8-0.2
Family Day Care Home	0.2	Refuse Disposal	2.4-0.6
Food Service		Retail	
Catering Facility	0.8-0.2	<20,000 sf gross leasable space	0.8-0.2
Outdoor Café	0.1	>20,000 sf gross leasable space	2.4-0.6
Restaurant	0.8-0.2	Sale of Alcohol	0.8-0.2
Take-out Food Service	2.4-0.6	Sale of Fire Arms	2.4-0.6
Funeral Home	2.4-0.6	Schools	2.4-0.6
Golf Course & Country Club	2.4-0.6	Storage	

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Table 5.4 Foot-candle Standards			
USE	Max. Exterior fc	USE	Max. Exterior fc
Health Care Facility		Warehouse + Wholesale w/ indoor storage	0.8-0.2
Hospital	5.0	Outdoor Storage	3.0
Nursing Home	5.0	Accessory Use	8.0
Medical Office	0.8-0.2	Primary Use	8.0
Rehabilitation Facility-Out Patient	2.4-0.6	Vehicle Storage	20.0
Managed Residential Care Facility	2.4-0.6	Accessory Use	1.0
		Commercial	20.0
		Telecommunications Facility	0.1
		Wind Energy Conservation System	0.1

Section 5.16 Infrastructure

The following provisions shall apply to any use in T1, T2, T3, T4, SD1

A. Utilities

1. General Requirements

No development plan shall be approved unless:

a. Adequate public utilities, public sanitary sewers or Health Department-approved on-site septic systems, and storm drainage are provided by the applicant(s).

b. Written evidence has been furnished of safe and satisfactory means of supplying potable water and fire protection.

c. The applicant(s) provides fire hydrants at appropriate locations when public water is available. All Town specifications for furnishing and installing water systems and hydrants must be met.

2. Sanitary Sewers

Where public sewers are available, all sites shall be properly connected to an approved and functioning sanitary sewer system prior to issuance of a Certificate of Zoning Compliance. All sanitary sewer extensions and connections shall be made in accordance with the specifications in the Connecticut Public Health Code regulations and the rules and regulations of the Greater New Haven Water Pollution Control Authority.

3. Individual Services

Electric power, telephone, and other cable systems shall be placed underground, with the exception that existing electric power and telephone/cable system facilities may be used where appropriate for industrial and commercial uses. The Commission may waive this provision by 2/3 vote only if the utility company has determined that safe underground installation is not feasible because of soil, water or other natural or man-made conditions. Existing overhead wires on residential streets may remain; however, all extensions must be underground.

4. Water Supply

Sites with a property boundary within 200 feet of an existing public water supply must connect to public water in accordance with the State Public Health Code unless the Commissioner of Health grants an exception.

Section 5.17 Traffic, Parking & Loading Requirements

The following provisions shall apply to any use in T1, T2, T3, T4, SD1 and P

A. Off-Street Parking and Loading Regulations

1. Applicability

Off-street parking and loading facilities shall be provided and used to serve all buildings erected, moved,

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altered, or enlarged and all premises otherwise developed. Such facilities shall be provided, in accordance with the standards specified in these Regulations, to accommodate the motor vehicles, occupants, employees, customers, suppliers and other persons normally visiting or servicing such buildings or premises at one time.

2. Location of Parking and Loading Facilities
Parking and loading spaces required for all uses in any T4 or SDI District shall be located on the same lot as the principal use.
Parking spaces required for any use in a T1, T2, T3,

T4, SDI District shall consist of one or more of the following:

- a. Those located on the same lot as the principal use, and/or;
 - b. Legal on-street parking spaces corresponding to the lot frontage, and/or;
 - c. Parking spaces by purchase or lease for 25 years from a parking lot or garage within 300 feet, and/or;
 - d. Spaces available in a public parking garage located within 300 feet.
3. Parking and Loading Spaces

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**Table 5.5 Required Parking Spaces for Residential Zones
(Parking Requirements for T-Zones and SDI are located on Table 4.2)**

Building &/or Property Uses(s)	Function	Parking Requirement
Accessory Building		As determined by the Commission
Accessory Use		As determined by the Commission
Adult-Oriented Establishment	RETAIL	3 spaces per 1,000 sf of gross floor area
Agriculture		
Commercial Farm	OTHER	As determined by the Commission
Community Garden	OTHER	1 space for each 5 plots offered
Truck Farm	RETAIL	3 spaces per 1,000 sf of net floor area
Animals		
Animal Day Care	RETAIL	1 space per every 2 employees and 1 space per 10 licensed animal capacity
Animal Training Facility	RETAIL	1 space per every 2 employees and one space per animal during peak size class
Grooming	RETAIL	3 spaces per 1,000 sf of gross leasable area
Keeping of Animals	RETAIL	
Kennel	RETAIL	1 space per every 2 employees and 1 space per 10 licensed animal capacity
Stable	OTHER	As determined by the Commission
Veterinary Hospital	RETAIL	5 spaces per 1,000 sf of gross area
Business & Personal Service	RETAIL	4 spaces per 1,000 sf of gross leasable area
Cemetery	CIVIC	As determined by the Commission
Civic Club, Lodge, or Association (non-profit)	CIVIC	1 space for each 3 legal occupants, as defined by the Fire Marshal
Community Residence		
Conference Center Development	CIVIC	1 space for each 3 legal occupants, as defined by the Fire Marshal
Day Care		
Adult Day Care	OTHER	1 space per every employee and 1 space per 8 licensed client capacity; sufficient drop-off and pick-up stacking space must be provided
Child Day Care Center, Nursery School & Group Day Care Home	OTHER	1 space per every employee and 1 space per 8 licensed client capacity; sufficient drop-off and pick-up stacking space must be provided
Family Day Care Home (children)	OTHER	1 space per every employee and 1 space per 8 licensed client capacity; sufficient drop-off and pick-up stacking space must be provided
Food Service		
Catering Facility	RETAIL	4 spaces per 1,000 sf of gross leasable area
Outdoor Cafe	RETAIL	0 additional spaces
Restaurant	RETAIL	16 spaces per 1,000 sf of patron floor area
Take-out Food Service	RETAIL	4 spaces per 1,000 sf of gross leasable area
Funeral Home	OTHER: CIVIL SUPPORT	1 space for every 3 legal occupants, as defined by the Fire Marshall, plus 3 spaces for special vehicles

5.0 BASIC STANDARDS

Required parking facilities for passenger vehicles shall contain no less than the minimum space set forth below. Rooftop and indoor parking may be included in the required number of spaces. Off-street parking and loading shall be maintained as long as the building or use remains on the property. No owner of any building or use affected by this section shall discontinue, change, or dispense with, or cause the discontinuance of, any required parking or loading space. No person, firm or corporation shall occupy a building without providing parking and loading spaces that meet the requirements of and are in compliance with these Regulations. No sales, servicing, or dead storage of automobiles, trucks or automotive equipment shall occur in any required parking or loading space.

1. A minimum of one bicycle stall shall be provided for every ten vehicular parking spaces.
2. The shared parking factor from Section 3 may be applied to parcels with more than one use.
3. Stacking of parking spaces for single-family homes is permitted.

The Commission may modify required parking where the applicant demonstrates that parking use is complimentary at different times of the day or week.

B. Required Truck-Loading Spaces

Truck-loading spaces shall be adequate in number to serve the proposed use and shall be located on the site so as not to impede on-site pedestrian and vehicular circulation.

C. Parking and Loading Area Specifications

All off-street parking and loading areas, whether required by these regulations, shall comply with the following specifications.

4. General Design (See also Section 5.9 Site Amenities)

- a. Parking and loading areas shall be designed and constructed for safe circulation of vehicular and pedestrian traffic on the lot and shall avoid interference with public use of adjacent streets and sidewalks;
- b. No parking lot shall be designed or construct-

ed that requires vehicles to back onto a street;

- c. Buildings shall be arranged on the lot so as to permit vehicular access to the rear of the lot;
- d. Parking lots shall be designed to minimize large, open expanses of paving.

5. Surfacing and Drainage

All parking and loading areas shall be properly surfaced, graded, and drained. Stormwater drainage systems shall be designed to minimize run-off and maximize absorption of pollutants. Required parking and loading facilities for all uses, other than one- and two-family dwellings, shall have an all-weather, dust-free surfacing or bituminous or concrete paving, and shall be maintained in good condition and capable of allowing free and safe movement of all vehicles using the facilities.

Any parking spaces in excess of the minimum required shall be pervious unless expressly stated otherwise by the Commission.

6. Curb Cuts, Ingress, and Egress

- a. The Public Works Department or CT Department of Transportation shall review ingress and egress locations and sight lines;
- b. The Public Works Department or CT Department of Transportation shall review curb-cut widths and curb-cut radii, where appropriate;
- c. No curb-cut radii shall be designed or constructed so as to force a vehicle to cross a traffic lane or to climb a curb;
- d. Where feasible, new curb-cuts shall be aligned with existing curb-cuts on the opposite side of the street;
- e. The number of curb cuts per block should be minimized.

Parking Aisles

Parking aisles or interior driveways shall be of adequate width to serve a particular design arrangement of parking spaces, the following being the minimum width permitted:

5.0 BASIC STANDARDS

Design Arrangement	One-Way Aisle Width	Two-Way Aisle Width
90° parking	24 feet	24 feet
60° parking	18 feet	24 feet
45° parking	13 feet	24 feet
30° parking	11 feet	24 feet
Parallel parking	12 feet	24 feet

Ninety-degree parking shall be used unless there is positive control of the direction of all traffic. Arrows painted on the surface of each aisle or driveway shall indicate traffic flow or direction.

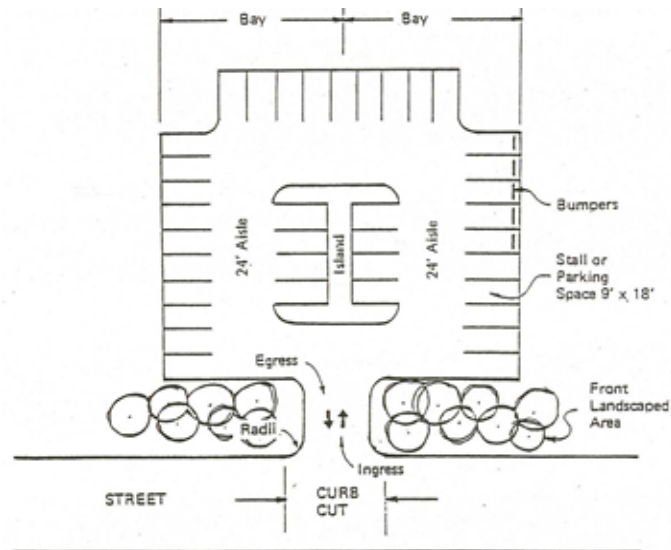


Figure 5.4 Typical Arrangement for 90° Parking

5.0 BASIC STANDARDS

8. Parking Spaces

- a. All parallel parking spaces shall measure at least 9 feet by 22 feet and all other parking spaces shall measure at least 9 feet by 18 feet, exclusive of driveways and aisles, except as provided below and shall have access to a street or alley by way of a driveway;
- b. Except for those at one- or two- or three-family dwellings, all parking spaces shall have bumper guards or curbs to prevent damage to trees, shrubs, landscaping, and lighting and to prevent interference with pedestrian use of sidewalks;
- c. All parking spaces, except for one and two- or three-family dwellings, shall be marked by painted lines, curbs, or other means.

Spaces for Small Cars

Where a parking lot contains more than 30 car spaces, the applicant may provide up to 40% of the total required parking in small-car spaces, subject to approval by the Commission. A small-car space shall not be less than 8½ feet in width and 16 feet in length. The applicant is encouraged to use the difference in area between each small-car space and standard parking space for additional landscaping on the site.

9. Parking Lot Sidewalks

- a. For parking lots with more than 30 cars, every other double bay shall provide for sidewalks on a raised curbed area consistent with sidewalk requirements below. The Commission may, at its discretion, waive this requirement, by 2/3 vote, provided that the application gives due consideration to pedestrian and vehicular safety, pedestrian and vehicular flow, and adequacy of landscaping.
- b. Where no wheel stops are provided, the sidewalk shall be 6 feet wide. Where wheel stops are provided, the minimum width of the sidewalk shall be 5 feet. All sidewalks shall be constructed of concrete.

10. Handicapped Parking

Parking shall be provided for the physically handicapped in accordance with the ICC/ANSI A117.1-2009 of the 2016 Building Code of the State of Connecticut as it may be amended from time to time.

11. Attended Parking for Events

Attended parking areas are permitted to accommodate overflow parking that occurs due to temporary events such as banquets, conferences, fairs, and similar occasions of public congregation. The Woodbridge Police Department may approve an attended parking area permit in any zone. Event parking may require a parking attendant on duty one hour before the scheduled beginning time of the event and up until one hour after the ending time of the event. Prior to approving a plan for an event parking permit, the applicant shall obtain the approval of the Police Chief.

B. Drive-through Window Service and Queue Space

I. General Requirements

- a. Drive-through window services shall be designed and located to minimize conflict between pedestrian traffic and vehicular traffic;
- b. A traffic study shall be required for all drive-through applications, unless expressly waived by the Commission;
- c. Drive-through window services shall comply with the following standards:
 - i. Drive-through windows shall be located in the rear of the building. The Commission may waive this requirement when the configuration of the lot or building warrants a different location or in instances where abutting residential property would be better served by a buffer;
 - ii. All drive-through lanes shall be 9 feet wide;
 - iii. All drive-through lanes shall be designed to allow vehicle queuing on site and shall be physically separated from entrances and exits so as not to obstruct vehicular access/egress;
 - iv. The Commission may require that a landscaped area be placed between the drive-through lane(s), the general access lane(s), and parking area;
 - v. The drive-through shall be clearly defined by pavement markings and directional signage.

5.0 BASIC STANDARDS



Examples of re-design of existing gas station condition

Rendering by Seth Harry, Seth Harry & Associates, Architects, and Planners

2. Queue Space Standards

a. Minimum queue space shall be provided for uses as specified in Table 5.7. Queue space shall be provided in such a manner that the head of the queue starts adjacent to the specified use and extends so as not to obstruct or encroach upon any parking space, aisle or into the street. Queue space

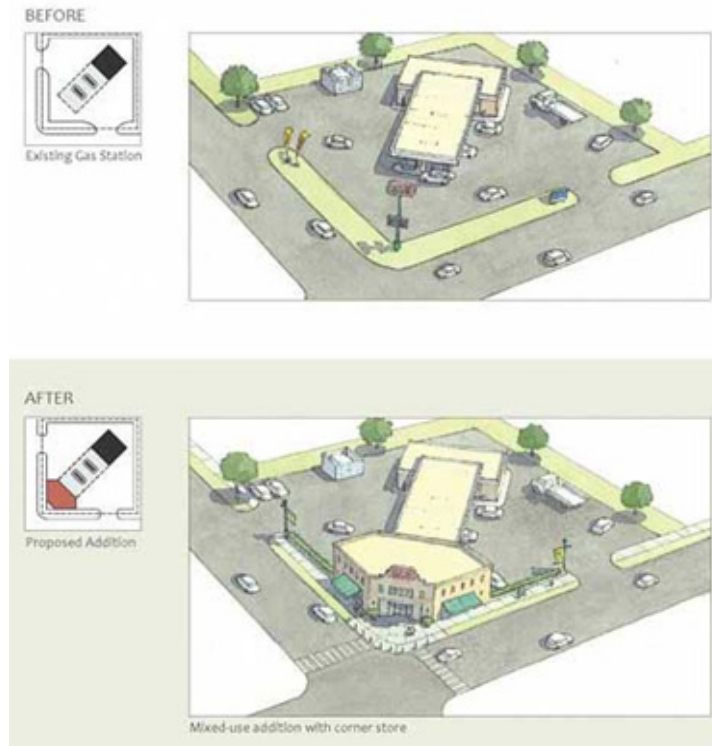
shall only be provided on the lot being developed, and for the use to be served and shall not extend into any street or right-of-way.

b. Each queue space shall have a dimension of 9 feet in width by 18 feet in length.

Table 5.7 Required Queue Spaces	
Use	Required Queue Spaces*
Automated Teller Machine (ATM), drive-up type	4 per machine
Bank Drive-up window	8 for each window in a separate lane
Pharmacy Drive-up window	4 for each window
Take-out food service	8 for each window
Other [MBD1][1c2]	4 minimum

*Unless modified by the Office of the State Traffic Administration

5.0 BASIC STANDARDS



Examples of re-design of existing drive through designs
Examples of re-design of existing drive through designs

C. Landscaped Parking Area (See also, 5.10.D Buffer Area)

In addition to the front-landscaped and buffer-area requirements, parking lots shall comply with the following minimum standards:

1. Where 30 or more parking spaces are required, there shall be at least 10 square feet of interior landscaping for each parking space within the paved portion of the parking area and at least one tree for every 5 parking spaces or fraction thereof;
2. Each separate landscaped area shall contain a minimum of 120 square feet, shall have a minimum dimension of 9 feet, shall be planted with grass or shrubs, and shall include at least one tree of not less than 2-inch caliper at Dbh. Required landscaped area may be massed;
3. Parking spaces within or below a structure, or otherwise covered, shall not be counted when computing required landscaped areas or number of trees

pursuant to this section;

4. A landscaped area shall be provided along the perimeter of any parking area except along that portion of the parking area that is functionally integrated with an adjoining parking area on an abutting lot. The landscaped area shall have a minimum dimension of 5 feet, shall be planted with grass or shrubs and shall include at least one tree of not less than a 2-inch DBH for every 30 feet along the perimeter of the parking area;
5. In cases where the parking area adjoins a public sidewalk, the required landscaped area shall be extended to the edge of the sidewalk;
6. Trees used in parking lots shall be those deemed appropriate for street tree use, as listed in Table 5.2 in these Regulations.

D. Visibility at Intersections

5.0 BASIC STANDARDS

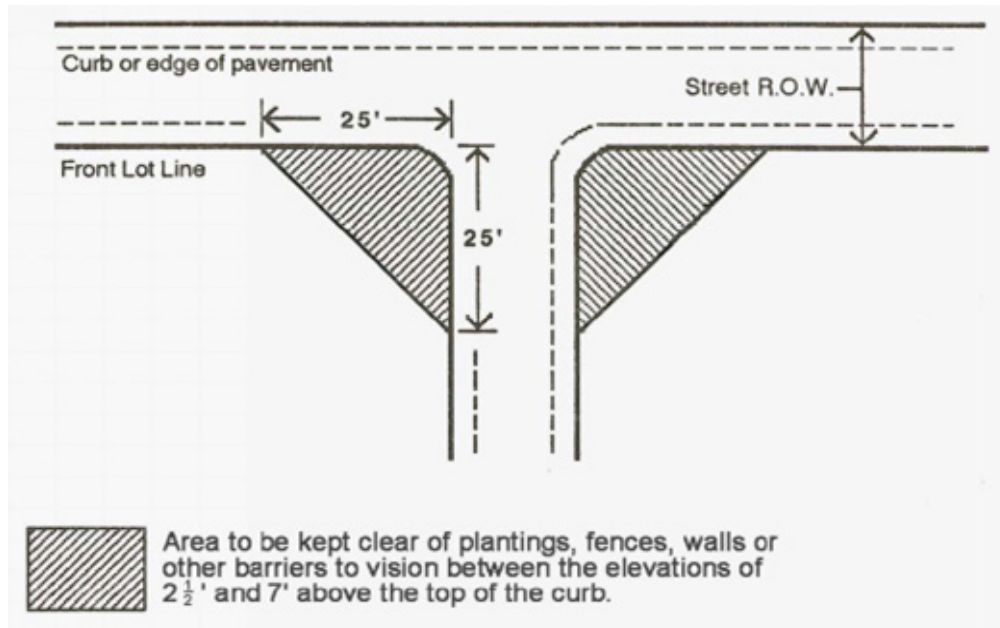


Figure 5.5 Visibility at Street Intersections