

SECTION 4 - DESIGN STANDARDS

4-01 GENERAL STREET PLANNING

The arrangement of streets in a subdivision shall be in harmony with existing principal thoroughfares, especially in regard to safe intersections with such thoroughfares, and so arranged and of such width, as to provide an adequate and convenient system for present and prospective traffic needs from existing and potential development, with due consideration for accomplishing an attractive layout and development of the land in the subdivision and in the neighborhood. Streets should, in general, follow the contour of the land and should have a location and grade which preserves desirable trees and natural features in the subdivision and which enhances property values in the subdivision. Land shall not be subdivided in such a manner to prejudice the possibility of further subdivision of land or of the convenient subdivision of adjoining lands.¹

4-01.1 RIGHT-OF-WAY

The width of the right-of-way of any street shall be not less than fifty (50) feet. The minimum width of right of way in non-residential areas shall be determined at the time of development, but shall not be less than 50 feet. Streets shall be graded for their total width in conformance with the approved typical section and to lines and grades as shown on the approved plan and profile drawings as set forth in the subdivision regulations, as adopted by the Town Planning and Zoning Commission and the typical cross-sections and standards included therein. The Commission may vary the provisions of these Design Standards regarding the width of rights-of-way and the width of roads to permit the municipality to connect streets within areas which were substantially built up at the adoption of these regulations.²

4-01.2 PERMANENT CUL-DE-SACS

Dead-end or cul-de-sac streets shall not, in general, exceed six hundred (600) feet in length in the R-12 or R-20/25 zone or one thousand (1000) feet in the R-40 or R-80 zones, and shall be constructed in accordance with the appropriate street specifications and/or administrative order and the standard design layout.

4-01.3 STREET GRADES

The streets shall be designed so as to have a reasonable relationship to the existing topography. Excessive cuts and fills shall be avoided by good design. Grades of all streets in residential zones shall be not less than one (1) percent nor greater than eight (8) percent except that a maximum grade of ten (10) percent may be permitted by the Commission on minor streets for distances of not more than two

¹ Revised, SA #19, effective 9/8/07

² Revised, SA #19, effective 9/8/07

hundred fifty (250) feet along the tangent. Street grades on permanent cul-de-sacs shall not exceed 3% for the last 150 feet. Due allowance will be made for reasonable vertical curves. Grades for streets in industrial and business subdivisions or zones shall not exceed six (6) percent, and the maximum grade the first 50 linear feet of such roadway shall not exceed 2%.¹

4-01.4 SIGHT LINES

Sight lines at all street intersections shall be provided for by cutoffs with radii of not less than thirty (30) feet at edge of pavement. Clear sight triangles shall be provided at both to the right and left with the location of the eye to be 15 feet back from the edge of the road using the center of the exit lane. The height of the eye is assumed to be 3.5 feet above the surface of the minor road. The height of the approaching vehicle on the major road is also assumed to be 3.5 feet. Intersection sight distances shall be based on design speed on the major road based on Conn DOT recommendations.²

4-01.5 SIDE SLOPES

Streets in cut or fill shall be provided with slopes not steeper than two (2) feet horizontal to one (1) foot vertical, or the stability of the street grade shall be otherwise provided to the satisfaction of the Town. Excessive slope lengths shall require reverse benches as determined by the Town Engineer. In all cases where such slopes outside street limits are required the Developer shall furnish necessary easements and slope rights in the name of the Town of Southington, so that the Town may maintain them upon acceptance of the streets. Where such abutting property is owned by persons other than the Developer, necessary easements and/or slope rights shall be required prior to approval. In all areas where the side slopes are steeper than four (4) feet horizontal to one (1) foot vertical and slope down from the street, Metal Beam Type Guard Rails or approved equal shall be installed in accordance with town specifications.³

4-01.6 STREET LINES

Street lines shall be connected by a curve of at least one hundred fifty (150) feet radius (centerline). Street lines shall be laid out to intersect as nearly as possible 75 feet from centerline. "T" intersections on opposite sides of a street shall not be permitted within one hundred fifty (150) feet of each other.

¹ Revised, SA #19, effective 9/8/07

² Revised, SA #22, effective 8/23/08

³ Revised, SA #19, effective 9/8/07

4-01.7 STREET NAMES

No street names shall be used which will duplicate or be confused with the names of existing streets. Proposed street names shall be on the plans submitted for approval so that staff can identify any potential street naming conflicts. Final street names shall be subject to the approval of the Commission.¹

4-01.8 STREET SIGNS

Street signs of the standard type used by the Town shall be placed at all street intersections at the expense of the subdivider. Regulatory, warning and stop signs, as deemed necessary by the Chief of Police, shall be provided and installed at the expense of the subdivider. Such signs shall be of standard type as specified by the Police Department. Street sign installation must be completed prior to the acceptance of the roadway and release of the public improvement bond.²

4-01.9 CONCRETE BOUNDS

Suitable concrete bounds shall be set, to the proper grade, on all street lines at all angle points and points of curve or at other points as directed by the Commission. Bounds shall be of reinforced concrete, not less than three (3) feet in length, tops not less than five (5) inches square with a brass center point, sides to taper with bases not less than six (6) inches square. A Connecticut licensed land surveyor shall certify placement of monuments. Receipt of this certification shall be a prerequisite for acceptance of public improvements.³

4-01.10 PAVEMENT WIDTHS

All roads shall be constructed according to the following minimum specifications based upon its functional road classification and all other standards and provisions within these regulations. The Commission shall determine the functional road classification of any street.

¹ Revised, SA #19, effective 9/8/07

² Revised, SA #19, effective 9/8/07

³ Revised, SA #19, effective 9/8/07

Road Classification	Minimum Street Width Curb-to-curb (ft)
a. Dead-end (permanent)	24
b. Residential	26 in R-40 *
c. Feeder	30
d. Collector	34 **
* Except that in the R-12 and R-20/25 Zones, a 28' minimum width shall be required.	
** Or subject to requirements as determined by a complete traffic study by a Professional Engineer. ¹	

4-01.11 SUBGRADE

Subgrade shall be established parallel with the finished grade and fifteen and one-half (15 1/2) inches below it. It shall be thoroughly rolled and compacted with a roller of not less than eight (8) tons and brought to true grade before the first course of gravel is placed thereon. The width of said subgrade shall be as determined by Section 4-01.12.

4-01.12 UNFORESEEN FIELD CONDITIONS

Where the initial excavation uncovers unsuitable or unstable material as determined by the Town Enforcement Officer, the developer shall remove such material within such lines and to such limits as directed by the Town's Enforcement Officer, and backfill with sand or gravel fill as directed by said Officer. The developer shall correct any unforeseen field conditions, for example ledge rock, side hill drainage from cuts, or high groundwater in order to comply with the regulations.

4-01.13 ROAD SPECIFICATIONS

All new streets shall be completed in the following manner and all construction shall conform to the State of Connecticut Department of Transportation Standard Specifications and as amended.²

4-01.13.a. The first course shall be constructed with "bank run" gravel, consisting of sound, tough, durable particles of gravel, free from thin shale, lumps of clay, loam or vegetable matter, or stones more than five (5) inches in diameter, and shall be approved by the Town Engineer. Samples of the gravel proposed to be used and the name and location of the gravel pit from which it came shall be forwarded to the Town Engineer before any work is done. When

¹ Revised, SA #19, effective 9/8/07

² Revised, SA #19, effective 9/8/07

thoroughly compacted this course shall not be less than eight (8) inches in thickness.

- 4-01.13.b.** The second course shall consist of processed stone as specified per M.05 of the State of Connecticut Department of Transportation Standard Specifications. When thoroughly compacted this course shall not be less than four (4) inches in thickness.¹
- 4-01.13.c.** The third course shall consist of Class IV Bituminous Concrete binder as described per Section M.04 of the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges, Facilities and Incidental Construction FORM 817 (Form 817) or the latest version thereof. When thoroughly compacted, this course shall not be less than three (3) inches in thickness² for residential, commercial and industrial subdivisions.³
- 4-01.13.d** The final course shall consist of a dense graded Class II Bituminous Concrete surface course per M.04 of the Standard Specifications, one and one-half (1 1/2) inches thick after compaction for residential subdivisions and two (2) inches thick after compaction for commercial and industrial subdivisions,⁴ shall be laid over the existing surface. Prior to the placing of the binder course shall be repaired and brought to the proper grade and accepted by the Town Engineer.⁵
- 4-01.13.e** Compaction of each course shall be by rolling thoroughly with a roller of not less than eight (8) tons weight.
- 4-01.13.f** The developer shall notify the Town Engineer forty-eight (48) hours in advance of the commencement of each phase of work.
- 4-01.13.g** No asphalt shall be installed before May 1 or after October 31 unless written authorization is granted by the Enforcement Officer.

4-01.14 CURBS

Curbs shall be constructed of bituminous concrete and shall be constructed on both sides for the entire length of all streets. Curbs shall be placed on the third course just prior to the placement of the fourth and final course. Any curb

¹ Revised, SA #19, effective 9/8/07

² Revised, SA #26 effective 10/22/16

³ Revised, SA #26, effective 10/22/16

⁴ Revised, SA #20, effective 3/22/08

⁵ Revised, SA #19, effective 9/8/07

damaged during construction shall be removed and replaced prior to the road acceptance.¹

4-01.15 MAINTENANCE OF UNACCEPTED SUBDIVISION STREETS

The developer shall be responsible for the complete maintenance of all subdivision improvements, including snowplowing, street sweeping, cleaning of the drainage system, etc., until such improvements are accepted by the proper town authorities. In the event the developer fails to comply, this regulation authorizes the proper town department to perform the necessary work without incurring any liability thereof, and back charge such work to the developer's bond.²

4-01.16 PRIVATE DRIVEWAY REQUIREMENTS³

No private driveway, as measured at the center line, shall exceed a grade of 5% when located within 25 feet of the gutter line of the roadway from which access is provided nor shall any remaining portions of a driveway exceed a grade of 15%. The angle as it meets with the Town street shall not exceed 60 degrees and adequate sight distances in each direction shall be achieved as approved by the Town Engineer.

In addition, all driveway aprons must be completely paved a minimum of ten (10) feet from the roadway in accordance with standard driveway specifications prior to the issuance of a Certificate of Occupancy (CO).⁴

4-02 STORMWATER MANAGEMENT

Flow calculations for conventional pipe and channel system design shall be developed and sealed by a Connecticut Licensed Professional Engineer within the following minimum guidelines.⁵

4-02.1 All storm drainage systems shall be designed and constructed to handle not only drainage from the proposed subdivision, but also from any land area and future subdivision located upgradient.

4-02.2 Design Storm

4-02.2.a Drainage systems from catch basin to catch basin: 10-year frequency.

¹ Revised, SA #26, effective 10/22/16

² Revised, SA #19, effective 9/8/07

³ New, SA #22, effective 8/23/08

⁴ Revised, SA #26, effective 10/22/16

⁵ Revised, SA #19, effective 9/8/07

- 4-02.2.b** Discharge pipes at low points: 25-year storm.
- 4-02.2.c** Watercourses with a watershed area of less than 1000 acres: 25-year storm.
- 4-02.2.d** Watercourses with a watershed area of greater than 1000 acres: 50-year storm.

- 4-02.3** The peak discharge calculation shall be computed in the following manner:
 - 4-02.3.a** Watershed area of less than 200 acres: rational method
 - 4-02.3.b** Watershed area of 200 acres to 5 square miles; Soil Conservation Service, Comparable gauged streams, rational method as limited flow only, or other means deemed appropriate by the Town Engineer.
 - 4-02.3.c** Over five (5) square miles: "Bigwood-Thomas Flood Flow Formula".

- 4-02.4** The value for rainfall intensity shall be obtained from the Town Engineer.
- 4-02.5** Runoff coefficients shall be determined by published literature and the Town Engineer.
- 4-02.6** Time of concentration shall be obtained in the following manner:
 - 4-02.6a** The "Seely Chart" shall be used for distances under 1000 feet from the furthest point of the watershed to the discharge point or as determined by the Town Engineer.¹
 - 4-02.6b** The "Kirpich Chart" shall be used for distances over 1000 feet from the furthest point of the watershed to the discharge point or as determined by the Town Engineer.²

- 4-02.7** Drainage pipe standards
 - 4-02.7a** All pipe shall be reinforced concrete pipe (RCP) Class IV or HDPE.³ Concrete pipes shall be joined with full Portland cement mortar joints unless otherwise directed. Where excessive groundwater is encountered or poor drainage is anticipated, the

¹ Revised, SA #19, effective 9/8/07

² Revised, SA #19, effective 9/8/07

³ Revised, SA #26, effective 10/22/16

Town Engineer may require that suitable underdrains be installed prior to the placement of the sub-base course or pavement.

4-02.7b SDR 35 pipe may be used with written approval from the Town Engineer.¹

4-02.7c The minimum pipe size shall be fifteen inches for public improvements and twelve inches for any private, commercial or industrial development.

4-02.7d Pipe capacity shall be computed using the "Manning Equation" with the following roughness coefficients (n):

4-02.7.d.1 Reinforced concrete pipe = 0.015

4-02.7.d.2 Corrugated metal pipe and CMP arches as recommended by the American Iron and Steel Institute.

4-02.7e The minimum grade of all pipes shall be 0.005 feet per foot.

4-02.8 DITCHES AND CHANNELS

Drainage channels and/or ditches running parallel to the edge of the road, shall be provided if deemed necessary by the Commission and/or the Town Enforcement Officer. These shall serve to intercept runoff or groundwater from upland areas.

4-02.8.a. All ditches and channels shall be designed for uniform flow by "Manning's Equation" with the depth at design flow shown on the plans. The following roughness coefficients (n) shall be utilized in making the computations:

Concrete	0.015
Bituminous Concrete	0.015
Excavated Ditches	0.025
Natural Streams	0.035 minimum
Modified Rip-Rap	0.034
Intermediate Rip-Rap	0.037
Standard Rip-Rap	0.041
1. All ditches shall have a minimum freeboard of 1.0 foot at design flow. 2. All ditches within the road right-of-way shall be designated so that the water surface elevation at design flow shall be 1.0 feet below the roadway subbase	

¹ Revised, SA #26, effective 10/22/16

4-02.9 CATCH BASINS

- 4-02.9.a** The maximum distance from the roadway summit to the first catch basin shall be 350 feet. The maximum distance between catch basins in a stormdrain system shall be 300 feet.
- 4-02.9.b** Catch basins shall be spaced so that the width of the flow in gutters, as determined by gutter flows analysis, shall not exceed ten (10) feet.
- 4-02.9.c** Double grate catch basins shall be used in all sags.¹
- 4-02.9.d** On steep grades, distances between catch basins shall be determined by the Town Engineer.

4-02.10 Minimizing the increase in stormwater runoff. Stormwater detention basins shall be required for all new developments unless specifically waived by the Planning and Zoning Commission.

Detention basins shall be designed to reduce the peak rate of discharge from the 2, 10, and 25-year storms to a level commensurate with the peak rate of development and shall be able to store the 25-year storm. The effect of the stormwater detention basin on the timing of runoff shall also be considered in the evaluation of flooding potential downstream. Stormwater detention basins shall be designed to maximize recharge to groundwater. Detention basin design shall be performed within the following guidelines:

- 4-02.10a** Detention basins will be designed to limit peak discharges from a developed area to the peak discharges occurring before development, or an increase in peak flow as determined by the Town Engineer for each watershed.
- 4-02.10.b** An emergency spillway shall be provided to pass the discharge from a 100-year storm frequency.
- 4-02.10.c** The procedure for computing the outflow from detention basins consists of the development of storm hydrographs and the routing of these hydrographs through the detention basin. The method developed by the Soil Conservation Service, United States Department of Agriculture, for developing synthetic hydrographs and routing these hydrographs through reservoirs shall be used or another acceptable means deemed appropriate by the Commission.
- 4-02.10.d** Detention basins may be any of the following types:

¹ Revised, SA #22, effective 8/23/08

- 4-02.10.d.1** Dry basins that may be multi-purpose with recreational or other uses during dry periods. Low frequency storms should result in little or no flooding. The basin should be designed to empty within 12 hours after a design storm.
- 4-02.10.d.2** Small permanent pond with the major portion of the detention area a dry basin with flat slopes as above. The permanent pond should be designed as a silting basin for use both during and after construction.
- 4-02.10.d.3** Permanent pond with detention provided above the normal water level with relatively steep slopes.
- 4-02.10.e** A 4 foot minimum height safety fence surrounding the entire basin or pond, including an access gate, is required if:
 - 4-02.10.e.1** A 25-year storm would result in a water depth greater than 24 inches for a period of 8 hours or longer or greater than 48 inches for 2 hours or longer;
 - 4-02.10.e.2** A pond has interior side slopes exceeding a 3:1 ratio; or
 - 4-02.10.e.3** A wet pond will normally retain greater than 24 inches of water depth.
- 4-02.10.f** The detention basin shall be designed as a sedimentation basin for use during and after construction.
- 4-02.10.g** The submission for the design of a detention basin shall include the following:
 - 4 -02.10.g.1** Plan with a scale of not less than 1"=40' showing proposed contours with a 2 foot interval.
 - 4-02.10.g.2** Details of the outlet.
 - 4-02.10.g.3** Inflow hydrograph with outflow hydrograph superimposed on it.
 - 4-02.10.g.4** Inflow mass curve.
 - 4-02.10.g.5** Elevation - storage curve.
 - 4-02.10.g.6** Elevation - discharge curve.

- 4-02.10.g.7** Flood routing calculations.
- 4-02.10.g.8** Written comments on the subsurface conditions relative to water table, ledge, and soil permeability.
- 4-02.10.g.9** If deemed appropriate, a drought analysis shall be prepared and submitted.

4-02.11 RETENTION BASINS

Where discharge from pipe culverts is into a watercourse that is deemed inadequate to handle the discharge, retention basins shall be designed and constructed based on a one-hundred year storm frequency and shall take into account the entire watershed in which the basin is to be constructed. A complete hydrogeologic study shall be required to ascertain the exact field conditions under and around the basin.

4-02.12 SPECIAL STRUCTURES

Bridges, box culverts, deep manholes and other special structures shall be designed in accordance with good engineering practice acceptable to the Commission and approved by the Town Engineer. Bridges and box culverts shall be designed to the full width of the right-of-way.

- 4-02.13** Drainage easements, flowage rights, and indemnification agreements shall be furnished by the developer, in a form satisfactory to the Town Attorney, in the name of the Town of Southington where they may be required to install or maintain drainage installation outside roadway limits, including ditches where necessary, and to hold harmless the Town of Southington from any future damage from stormwater runoff. Such easements shall be a minimum of 15 feet in width.

- 4-02.14** Any proposed change or revision in the drainage system as shown on the approved plans shall be submitted to and approved by the Enforcement Officer in advance of construction.

- 4-02.15** Stormwater Drainage on all roads shall be discharged a minimum of 150' distance from the street line.

- 4-02.16** Where a subdivision of land proposes building lots on an existing town road, or where the tract of land to be subdivided presently receives stormwater drainage from an existing town road or from a watercourse, it will be the responsibility of the developer to provide, by piping, an adequate stormwater drainage system suitable to give the existing town street and adjacent lots of the proposed subdivision proper drainage.

- 4-02.17** All trenches within the roadway limits shall be backfilled with materials acceptable to

the Town Enforcement Officer and in no case shall clay or other unsuitable material be used for backfill. All trench backfill shall be thoroughly settled and compacted to the satisfaction of the Town Enforcement Officer before the surface course is placed.

4-03 LOTS

4-03.1 All lot corners shall be permanently located by iron or steel stakes at least three-quarters (3/4) inch in diameter and thirty (30) inches in length and located in the ground to existing grade. Such lot marking shall be a prerequisite for issuance of Certificates of Occupancy.¹

4-03.2 Side lot lines shall be substantially at right angles or radial to street lines.

4-03.3 All lots shall have access directly from a public street.²

4-04 PRESERVATION OF NATURAL FEATURES

All prominent features such as watercourses, water basins, wetlands, stone fences, ridge tops, scenic points, trees with greater than or equal to 6" caliper measured at 4'6" from the ground and similar irreplaceable natural assets shall be shown on the development plans and shall be preserved and conserved to the greatest extent possible and the felling of trees shall be held to a minimum.³

Furthermore, Plans must show all trees 2" caliper or greater, measured at 4'6" from the ground within any existing Town right-of-way abutting the subdivision. Removal of any tree in this area must be approved by the Town prior to clearing. If the Town determines that trees were removed in contradiction to this section the town may require reforestation by planting of replacement trees.⁴

When the proposed construction of streets, sidewalks or utilities will cause the removal of mature existing trees, replacement trees and/or installation of trees as deemed necessary by the Commission, shall be required on each lot so affected. Replacement trees shall be of a hardwood type which is naturally occurring in local woodlands. These trees shall be at

¹ Revised, SA #19, effective 9/8/07

² New, SA #19, effective 9/8/07

³ Revised, SA #19, effective 9/8/07

⁴ Revised, SA #19, effective 9/8/07

least 3 inch caliper at 4 ½ feet above ground level. Replacement trees may be located ten feet inside the front property line.¹

4-05 PUBLIC WATER AND SEWER

The developer shall provide connections to a public water supply and sanitary sewer system for each lot deriving its access from the proposed streets covered under these public improvement specifications, where deemed appropriate by the Commission. If a private system or systems are proposed, they shall be governed by these regulations and all other appropriate State and local regulations, codes, and ordinances.

4-06 SIDEWALKS

- 4-06.1** Street right-of-way(s) sidewalks shall be required on one side of a through street in R-40 and R-80 zones and on both sides of a through street in all other zoning districts.
- 4-06.2** Sidewalks shall not be required in R-40 and R-80 zones on either side of a permanent cul-de-sac.
- 4-06.3** The Commission may grant a waiver of the sidewalk requirement in a subdivision by a two-thirds (2/3) affirmative vote, if one or more of the following conditions is determined by the Commission to exist:
 - 4-06.3.a.** Where proposed road reconstruction or alignment would make immediate installation impractical; the Commission must specifically set forth the basis for its finding that the road project will be completed within twelve months if located within a school access area, or in twenty-four months if located outside such an area;
 - 4-06.3.b** Where unusual physical or topographical conditions make immediate installation impractical;
 - 4-06.3.c** Where there are pre-existing obstructions that cannot be readily relocated or should not be altered, such as grades, fills, watercourses, natural topographic features or man-made obstructions;
 - 4-06.3.d** Where the area or site has been recognized as having historical, archaeological, and/or architectural significance by the Town, the State, or the United States and in order to maintain such historical archaeological, and/or architectural significance.
 - 4-06.3.e** Where the proposed development or site is located in an area of a street or road that is at least seventy-five percent (75%) developed and where the practicality or feasibility of sidewalks being connected to the site does not

¹ Revised, SA #19, effective 9/8/07

exist. Area shall mean within two thousand (2,000) linear feet from both sides of the proposed development or site on both sides of the road. Property shall be considered developed if said property is used for residential, commercial or industrial purposes; regardless of development intensity. Property shall not be considered developed if said property is used for farming purposes. The provisions of this section shall not apply to proposed developments located within the legal walking distance of a school access zone as established or determined by the Board of Education.

4-06.4 In the I-1 and I-2 industrial zones, the Commission may further grant a waiver of the street right-of-way sidewalk requirement if one or more of the following criteria for the granting of a waiver is determined by the Commission to exist:

4-06.4.a The installation of sidewalks will be detrimental to safe pedestrian traffic.

4-06.4.b If the installation of sidewalks will be of little or no use for pedestrian traffic.

4-06.5 Sidewalks shall be constructed of five inches of Class F Portland cement concrete, containing 7% entrained air over six inches of processed stone (Spec. M.05.01, 3.04.03) sub-base. The sub-base shall extend three inches beyond each side of the sidewalk. Expansion joints shall be placed every twenty feet. In addition, sidewalks shall be continuous through driveways and shall be constructed of five inches of Class F Portland cement concrete, installed in the same manner as the sidewalk described herein.¹

4-06.6 Sidewalks and curbing shall be constructed in accordance with standards for the removal of barriers for the handicapped, as amended.

4-07 STREET TREES

The developer shall leave not less than two naturally growing trees having 3 inch caliper in the front yard of each lot or shall plant one tree for every 50 feet of lot frontage or fraction thereof, but no less than two trees from the Suggested Street Tree List with 3 inch caliper in the front yard of each lot. These shall be located a minimum of 10 feet from the street line to a maximum of 30 feet from the street line. Straight rows and the use of only one variety are to be avoided, the intent being to create a natural mixture of appropriate species.²

Suggested Street Tree List	
Acer Saccharum	Sugar Maple
Cercidiphyllum Japonicum	Katsura Tree

¹ Revised, SA #22, effective 8/23/08

² Revised, SA #19, effective 9/8/07

Suggested Street Tree List	
Ginkgo Bilboa Male	Male Ginko
Gleditsia Tri. Inermis	Thornless Honeylocust
Liquidambar Styraciflua	Sweetgum
*Liriodendron Tulipifera	Tuliptree
Plantanus Acerifolia	London Plane
*Prunus Sargentii	Sargent Cherry
*Pyrus C. Bradford	Bradford Pear
*Pyrus Calleryana	Chanticleer Pear
Quercus Borealis	Red Oak
Quercus Palustris	Pin Oak
Tilia Cordata	Little Leaf Linden
Tilia Tomentosa	Silver Linden
Zelkova Serrata	Japanese Elm
Fraxinum Pen. Lanceolata	Seedless Green Ash
*Conspicuous flowering	

4-08 FIRE HYDRANTS¹

- (a) Fire hydrants shall be installed at the developer's expense.
- (b) In residential subdivisions hydrants shall be located wherever possible at street intersections but in no event shall the distance between a lot and a hydrant exceed 500 feet unless a greater spacing is approved in writing by the Fire Chief and the Water Department.
- (c) In commercial subdivisions the hydrants shall be placed at intervals not exceeding 250 feet, unless a greater space between hydrants is approved in writing by the Fire Department Chief and the Water Department.
- (d) In industrial subdivisions the hydrants shall be placed in the most appropriate locations to ensure adequate fire protection for all properties. The hydrant spacing shall be approved in writing by the Fire Department Chief and the Water Department. In no event shall the distance between a hydrant and an industrial building exceed 250 feet.

4-09 SUBDIVISIONS LOCATED IN RESIDENTIAL-80 ZONES

4-09.1 Subdivisions proposed to be located in Residential-80 zones shall be subject to all provisions and specifications as contained in these Regulations, except as modified by the following sections:

¹ New, SA #19, effective 9/8/07

- 4-09.1.a** That the permanent dead-end streets, as provided for in Section 7-01.2, shall not, in general, exceed 1000 feet in length.
- 4-09.1.b** That the maximum grade of streets, as provided for in Section 7-01.3, be increased so that no grade shall be greater than ten percent except that a maximum grade of twelve percent may be permitted by the Commission on minor streets for a distance of not more than two-hundred-fifty feet.
- 4-09.1.c** That the "STANDARD SECTION" for Construction of Subdivision Roadways, as revised June 20, 1967, and the provisions of Section 7-01.10 be modified so that:
 - 4-09.1.c.1** The road shall be constructed according to specifications, 26 feet wide.
 - 4-09.1.c.2** The curb shall be so placed that the cross-section distance between curbs shall be 24 feet, with a 3" shelf of new road material outside each curb.
 - 4-09.1.c.3** That the grass strip, slope of 3/8" to 1'-0", as shown on the STANDARD SECTION, be constructed for a distance of 7'-3" beyond the bituminous curbing of the road referred to in a. and b. above, the intention of this provision being to provide 40' width of construction within the 50' roadway section.

4-10 STREET LIGHTS¹

The developer shall provide and install Dark Sky Compliant LED fixtures for all street lights to be located in the street right-of-way as part of the public infrastructure to be formally accepted by the town.

¹ New, SA #26, effective 10/22/16